

City of Austin



Lake Austin Task Force

Report and Recommendations

August 2013

Revision 1 Updated 8/21/13

This document provides the analyses and recommendations of the Lake Austin Task Force, created by the Austin City Council on May 24, 2012, to develop and report recommendations for changes relevant to Lake Austin. (Ordinance No. 20120524-083)

Revision 1 Updated 8/21/13

LATF Members

Nick Wiersema Place 1 Appointee	Kenneth Pfluger Place 1 Appointee	Ellen Witt Place 2 Appointee	Mary Ann Neely Place 2 Appointee
Carol Lee Place 3 Appointee	Andrew Hawkins ¹ Place 3 Appointee	Dr. Ben Hodges Place 4 Appointee	Pam Murfin Place 4 Appointee
Dr. Ernest Gonzalez Place 5 Appointee	Jared Matthews Place 5 Appointee	Linda Guerrero Place 6 Appointee	Alan Roddy Place 6 Appointee
Dr. Jane Rivera Parks & Recreation Board	James Schissler, P. E. Environmental Board	William Moriarty Water & Wastewater Commission	Eric Moreland Mayor's Appointee
Brian Roark Mayor's Appointee			

Special thanks to Larry Schooler, from the City of Austin Public Information Office, and Dr. Juli Fellows for their critical assistance in facilitating the Task Force meetings and process.

Table of Contents

Introduction.....	1
Purpose and Scope of Work for the LATF	1
LATF Work Groups	2
Process for Making Recommendations.....	4
Public Input	4
Summary of Consensus Recommendations.....	5
Work Group Analyses by Issue	12
Issue: Hydrilla and Aquatic Weeds	12
Issue: Sound/Noise	15
Issue: Water Quality and Monitoring	17
Issue: Erosion	20
Issue: Commercial Uses	20
Issue: Funding.....	23
Issue: Traffic.....	24
Issue: 50% Rule	26
Issue: ID Tags for Boat Docks	29
Issue: Other Boat Dock Issues.....	31
Issue: Variances	31
Issue: Public Education and Outreach	34
Issue: Lake Austin Zoning.....	35
Issue: Coordination.....	45
Issue: Boat Lift Remodeling.....	48
Issue: Marine Toilet Regulations.....	48
Issue: Wildfire	51
Issue: On-site Sewage Facilities (OSSF).....	52
Appendices.....	56
Appendix A: Flow Chart of Consensus Process	56
Appendix B: Work Group Process Steps	57
Appendix C: Work Group Report Template	58
Appendix D: Issue Analysis Template.....	59
Appendix E: Work Group Report: Enclosing Boat Docks and Extraneous Appurtenances.....	60

Appendix F: Work Group Report: Small Quantity Dredging 62

Appendix G: Accessory to Residence 63

Appendix H: Modifications that Qualify for Site Plan Exemptions 64

Appendix I: Work Group Report – Light Pollution 65

Appendix J: Public Comments 66

Appendix K: LATF Information Requests Tracking 78

Introduction

Lake Austin is one of the most valuable community assets of the City of Austin and a significant source of pride and attraction. Not only does it provide drinking water for the City of Austin and Municipal Utility Districts, but it also provides superior recreation and boating opportunities for citizens and visitors. The 1984 Lake Austin Ordinance acknowledged the vulnerability of the narrow, shallow lake and stressed the importance of protecting the lake and its environment to promote Austin's economic well-being. The Ordinance predicted that if the Lake Austin Watershed is not developed in a sensitive and innovative manner, the recreational benefits will be irreparably damaged.

Development and recreation pressures along the shores of the lake have been steadily increasing since the original Lake Austin Ordinance and are anticipated to continue to increase. Residents of the Lake Austin area have brought forward health and safety concerns such as periodic proliferation of Hydrilla, erosion of the Lake Austin shoreline, adequacy of wastewater treatment, contaminated rainfall runoff into the lake, adequacy of current ordinances and the enforcement thereof. There are also concerns that the increasing size and number of watercraft on Lake Austin compounded by new activities such as wakeboarding and wake surfing may be contributing to an increasing intensity of destructive wave energy within the lake and along the shoreline.

The problems facing Lake Austin are not uncommon. Key findings from the 2009 EPA National Lakes Assessment indicate similar concerns for lakes nationwide, reporting that poor lakeshore habitat and high nutrient levels are the biggest problems compromising the ecological integrity of the nation's lakes. The assessment suggests that "managers, residents, businesses, and community leaders should work together and enhance their efforts to preserve, protect, and restore their lakes and the natural environment surrounding them." Consistent with this idea, and in the spirit of supporting public interest of the emerging issues in the Lake Austin watershed, the Waterfront Planning Advisory Board (WPAB) and the Parks and Recreation Board (PARB) passed resolutions in 2010 requesting Austin City Council to assemble a multidisciplinary team to tackle the many concerns of Lake Austin and recommend methods and policies that would provide for reasonable use of Lake Austin while also protecting the resource.

Purpose and Scope of Work for the LATF

At their early meetings the LATF members drafted and approved a purpose and scope for their work. It was as follows:

LATF Purpose

On May 24, 2012 the City Council approved Ordinance 20120524-083 which created the Lake Austin Task Force (LATF). This ordinance was passed in response to resolutions of both the WPAB and PARB under growing public concern for the health and function of the lake. In addition to limiting administrative variances and assigning the Planning Commission as the land use commission for approving requests for variances for property within 500ft of the Lake, the ordinance directed the City Manager to work with the LATF to develop and report recommendations for changes relevant to Lake Austin.

The composition of the LATF includes: seven regular members from residents of neighborhoods adjacent to and surrounding Lake Austin, seven regular members appointed on the basis of knowledge or expertise in related subject matter, and three ex-officio, voting members of the PARB, Environmental Board, and Water and Wastewater Commission. Review by the LATF and any subsequent recommendations will be intended to provide use and management of the lake and shoreline that is protective of public safety, the environment, property rights, and provides for the use and enjoyment of Lake Austin by all. The LATF will expire either upon completion of its assigned task or one year after the effective date of the Ordinance (4 June 2013).

LATF Scope

As provided for by the enabling ordinance, the scope of work for the Task Force will be to consider and make recommendations regarding:

- Development that impacts Lake Austin watershed. This will include any and all temporary and permanent structures, including homes, businesses, docks, marinas, and public facilities.
- Lake use and management, including; recreational, commercial, and public use on and adjacent to the lake.
- Protection of the environment within the Lake Austin watershed, including but not limited to; water quality, shoreline erosion and stability, and invasive flora and fauna.
- Processes, policies, and coordination between entities with jurisdiction over Lake Austin, including, but not limited to; the City of Austin, LCRA, and Texas Parks and Wildlife.

LATF Work Groups

The Task Force identified a list of 62 potential issues (including duplicates). Each item was assigned to one of four categories:

- Lake Use and Management Issues
- Water Quality and Environmental Issues
- Development, Regulations and Compliance Issues
- Processes, Policies and Coordination Issues

The Task Force members were asked to provide a first and second choice on which category of issues they were interested in working on, and whether they would be willing to chair the respective work group. Every Task Force member was assigned to their first choice of work group and three Work Groups were formed on October 22, 2012 with five Task Force members in each group. There was slight interest in working on the Processes, Policies and Coordination Issues so it was decided that the full Task Force would address those after gaining a better understanding of the issues in the other categories.

Water Quality and Environmental Issues

Ben Hodges

William Moriarty
 Pam Murfin
 Mary Ann Neely
 Nick Wiersema – Chair

Lake Use and Management Issues

Ernest Gonzalez
 Kenneth Pfluger
 Brian Roark
 Alan Roddy
 Ellen Witt – Chair

Development Regulations and Compliance Issues

Andrew Hawkins (resigned)
 Jared Matthews
 Eric Moreland
 Jane Rivera
 Jim Schissler – Chair

Each Work Group was asked to analyze the issues within their category, using a form shown in Appendix A. Work Groups created reports on the top three to five priority issues in their category using a template (Appendix C) that included a problem analysis, cause analysis and remedy analysis. Consensus Work Group reports are included in this document.

LATF Schedule

May 24, 2012 – Austin City Council creates Lake Austin Task Force by Ordinance No. 20120524-083

August 20, 2012 – First meeting of the LATF

October 15, 2012 – Staff led boat tour of Lake Austin for LATF and stakeholders

October 22, 2012 – LATF Work Groups created

October 22, 2012 – Public Meeting No. 1

October 22, 2012 thru March 11, 2013 – LATF Work Group meetings

March 18, 2013 thru May 13, 2013 – LATF consideration of Work Group recommendations

May 20, 2013 – Public Meeting No. 2

June 3, 2013 – LATF final meeting to consider public comment and discuss possible revisions to recommendations

The Work Group members reviewed a variety of information to help analyze the issues, including the information requests shown in Appendix K. The Task Force used Google Drive to share information among all members, which ultimately grew to 277 files for a total of 659MB of shared information. Access to the Google Drive was also provided to City staff and others who were supporting the Task Force effort.

Some issues discussed by the Task Force do not have a Work Group report included in this document for various reasons (i.e. that issue was not assigned to a Work Group, the Work Group ran out of time, or there wasn't agreement among the Work Group members). Appendices E through I include Work Group reports that were completed but not considered by the Task Force due to lack of time.

Process for Making Recommendations

Once all Work Groups completed their issue review the Group reported back to the Task Force for consideration of possible recommendations. The Task Force made decisions on recommendations by **consensus**, requiring the agreement of **all** members present for that discussion. The decision to use a consensus process for all recommendations was decided on by a majority vote of the group. The consensus process used (Appendix A) was collaborative problem solving, led by a trained facilitator, Dr. Juli Fellows. In collaborative problem solving, the group first identifies the interests, or unmet needs and goals, of all the stakeholders. They then brainstorm literally *all* possible options, even those that might not have support. After the brainstorming, the group evaluates the options to determine which options best meet the variety of interests. Those options that seemed to meet a wide range of interests and on which the group could all agree became consensus recommendations.

In the sections that follow, a Work Group report is included if one was submitted. All the stakeholder interests identified for each topic and the consensus recommendations are listed in table format, and other options for that topic that were generated during the brainstorming but failed to reach consensus are listed below. Please note that the brainstormed options include some that had very strong support from some members but failed to reach consensus, as well as others that had very little support from any member.

Public Input

The Task Force was very interested in receiving input from the public. Input was received through the City's online portal Speakup Austin, public meetings, and at LATF meetings.

Two public meetings were held, one in October 2012 near the beginning of the LATF's work, and a second in May 2013 after a draft report was completed and made available to the public. In addition to the public meetings all meetings were open to the public. Public comment was accepted at meetings except for the period when work group reports were reviewed. Comment wasn't allowed during this period due to severe constraints on time.

All written public comments from the two public meetings and received online are included in Appendix J.

Summary of Consensus Recommendations

Hydrilla/Aquatic Vegetation

The Task Force believes that Asian Grass Carp are the main keystone, dependable solution to the Hydrilla problem. They are not the exclusive control option. They have examined and ruled out some possible lake-wide treatment options by the City of Austin including systematic mowing, chemical treatments, pulling it up by the roots, and completely draining the lake and pulling it up.

H1. Update the Lake Austin Hydrilla Management Plan to be consistent with the current state of science regarding aquatic macrophyte management, the specific process for determining Asian Grass Carp stocking rates, and applicability with current state and federal water quality standards.

H2. Document in the Hydrilla Management Plan and continue the iterative, proactive, adaptive process for determining Asian Grass Carp stocking rates. Increase the current stocking rate to 55.5%. Also improve the purchasing process to allow staff to react more quickly and be more nimble when spikes in Hydrilla growth occur.

H3. Ask all agency partners (LCRA, Travis County, Texas Parks & Wildlife) to budget funds for grass carp purchase.

Sound/Noise

SN1. Direct law enforcement officers patrolling the lake to provide more consistent enforcement of the existing sound ordinances applicable to water craft. (Note: This applies to both amplified sound and engine/exhaust noise.)

SN2. Simplify the process for getting APD boats repaired, so that APD is not chronically short of boats for Lake enforcement. (This currently happens under Fleet Services.)

SN3. Add to the existing law enforcement database, a database that allows officers to track violators of the sound ordinance on the lake.

SN4. Set allowable distance for all types of noise at 100 feet.

SN5. Improve enforcement [of noise laws] by increasing the number of boats and officers on Lake Austin, distributing patrol boats throughout the length of the lake and increasing penalties.

Water Quality & Monitoring

WQ1. Consolidate and coordinate in lake planning and monitoring programs amongst stakeholders and involved agencies (such as LCRA, TCEQ, etc.) with increased data sharing and provide easy public access to this information

WQ2. Develop a Historical Data Review for Lake Austin, to identify data gaps and needs and an annual Lake Austin Report, presenting monitoring methods, data collected and analysis procedures.

WQ3. Within three years, conduct research to determine, with the best scientific knowledge, the causes of blue-green algae blooms on the lake.

WQ4. Consider establishing, either on the staff or department level, a group whose sole responsibility is management of the entire Lake Austin watershed.

WQ5. As a policy recommendation, the City should upgrade its standards for on-site septic facilities.

WQ6. This Task Force supports the Austin Water Utility's current efforts to update the City of Austin on-site sewage facilities (OSSF) standards to provide a greater level of protection for the environment and public health and safety.

Erosion

E1. Develop a process for creating navigation zones to limit erosion.

E2. Support stream and creek bank stabilization and restoration and education about these issues.

E3. The Task Force recommends that the City of Austin fund a study that is a scientific analysis of waves and erosion, to include watercraft user origin. (Origin meaning homeowner, marina or trailered vessel.)

Commercial Activities

CA1. Develop and maintain a data bank of commercial users of the Lake and adjacent Lake shores.

CA2. Investigate possible locations for a second gas fueling station and additional sewage pumping facilities, considering environmental impacts as well as other factors.

CA3. Conduct a feasibility study of possible commercial operations such as canoe, kayak, paddleboard rentals at Emma Long Park or other locations.

CA4. Provide for boat launching fees at public ramps and employ attendants to collect the fees.

CA5. Utilize funding sources such as Parks and Wildlife's Paddling Trails program or LCRA's Colorado River Trails program to increase recreational opportunities.

CA6. Research possible public-private partnerships, or other funding strategies, for construction of new concessions and/or City facilities.

CA7. Improve public boat ramps and parking, especially at Walsh.

CA8. Establish a licensing system and process for commercial users of the lake with appropriate fees and oversight.

Funding

- F1. Create a Master Plan for the Lake. For example, identify long-term and short-term projects. Long-term projects might be funded through bonds.
- F2. Establish license fees for commercial use of the Lake.
- F3. Establish launching fees, with the funds going to Lake management.
- F4. Get a commitment from other agencies, such as LCRA, to fund Lake-related activities.
- F5. Dedicate all lake usage fees to Lake-related expenses.
- F6. Work with Travis County to ensure that any existing residential shoreline tax be applied to Lake Austin maintenance and operation.
- F7. Investigate the possibility of establishing license fees for private docks on public land.
- F8. Dedicate a particular amount of City of Austin general funds coming from property taxes on properties in the Lake Austin watershed to Lake Austin-specific uses.

Traffic

- T1. Collect a fee for launching at the City of Austin public ramps. Revenue should be dedicated to Lake Austin needs, such as maintaining boat ramps, improving boat ramp trailer parking areas, converting vertical bulkheads and dealing with invasive species.
- T2. Enforce parking restrictions at City of Austin public ramps. Encourage Travis County and TxDOT to enforce parking at Loop 360 boat ramps, including the illegal parking along the shoulders of Loop 360.
- T3. Collect a fee for launching at the public ramps that would be used to employ an attendant at the ramps.
- T4. Special attention is needed at Emma Long Park to keep swimmers inside of the swim areas. More buoys may need to be added along the shoreline of the camping area to separate boat traffic and campers.
- T5. Establish a no-wake zone up to 50 feet of the shoreline for the entire lake.
- T6. The Task Force recommends moving the Lake Patrol marina to Emma Long Park (with the public fuel facility and the fire department.)

Boat Dock and Bulkhead Issues – 50% Rule

- BDB1. Create a required boat dock registration process such that if the dock is registered within a certain number of years of the establishment of the registry, it qualifies as a legal, noncompliant dock in perpetuity as long as the horizontal and vertical footprint is

not expanded. Registration would require a photo and drawing illustrating the dock location and size and include a \$50-\$75 fee. The fee would be used to support staff to do the work and verify the data. Use information that is already in the files. If your dock was built after 1981, it must have a permit.

BDB2. Allow only up to 25% of the horizontal length of a bulkhead to be repaired using site plan exemption. This exemption should not be repeated within a 3-year period.

BDB3. Modification, maintenance, repair, replacement or reinforcement of boat docks under a site plan exemption (SPE) should be limited to non-structural changes to existing components. Allowed work under an SPE may include repair or replacement of the existing decking, railing, roofing etc. The following changes are NOT allowed:

- Changes to structural components (load bearing beams or walls, piers, roof structural components, etc.
- no additional walls (load bearing or not)
- no additional height, width or depth
- for legal, non-complying structures, nothing that increases non-compliance.

BDB4. Code should be changed to require a pre-construction meeting with Environmental Inspector prior to work commencing under an SPE. All other boat dock remodeling should require a site plan with associated drawings, pre-construction meeting and inspections.

Boat Dock ID Tags and Other Boat Dock Issues

BD1. Allow the City to decide how the tag requirement will be implemented as part of the boat dock registration process. City should consider using mile markers from the Tom Miller dam to Mansfield dam rather than street addresses for dock identification.

BD2. City staff should:

- a. Update and modernize the Code relating to boat docks.
- b. Review how terms are defined so that they are clear, consistent and workable.
- c. Address the following issues identified by the Task Force:
 - i. *Definition of "boat lifts"*
 - ii. *Question of height (limits)*
 - iii. *Requirements for marinas may not make sense, e.g. parking requirements.*
 - iv. *Address issues relating to the fact that not all docks are linked to residences.*
 - v. *Several issues of clarity around Article 13 such as the definition of a dock, the need to update to include newer technologies such as solar power and the definition of a permanent structure*
- d. Provide opportunities for public involvement in these code changes.

Variances

V1. Specific to §25-8 variances: leave the code as it was changed in May 2012 except make Zoning and Platting Commission the approval body. (That is, no administrative approvals, requests go to the Environmental Board for advisory purposes, then to Zoning and Platting for final review and decision.)

V2. The Task Force believes that the Parks and Recreation Board is not the appropriate venue for variance approvals. These requests should go to a more appropriate Board. City staff should consider deeply, in conversation with other relevant groups, who is the most appropriate Board to approve variances. The Task Force is not necessarily asking for a new Board to be created. The Task Force encourages a process that uses findings of fact and provides public notifications.

Public Education and Outreach

PEO1. Ask the Environmental Education group in Watershed Protection to focus public education and outreach efforts towards homeowners in the Lake Austin watershed on topics including: best environmental practices for erosion, bulkheads, fertilizers, stream bank restoration, public safety and flood protection.

PEO2. Create an Advisory group, similar to the Lady Bird Lake Advisory group, for Lake Austin.

Coordination

C1. City Law needs to identify or cultivate one or more resource persons who have appropriate knowledge and experience in navigation stream law and Federal and State water codes to advise staff and the Boards/Commissions and City Council on policies and decisions related to managing the Lake.

C2. Establish a Lake Management Division with a cross-functional team led by a Director with lake management experience to provide comprehensive oversight of all the policies and procedures that affect the Lake Austin watershed. This Division would include planning, regulation and oversight of facilities and commercial uses along and within the lake, development within the watershed boundary, and managing recreational use.

C3. Consider consolidating the functions of the Board of Adjustment and the Zoning and Platting Commission to have one Board/Commission that uses appropriate Findings of Fact for considering variances to all regulations that affect the Lake Austin watershed. In the interim:

- All requests for variances from LDC 25-2 Use and Development and Article 13 Docks, Bulkheads and Shoreline Access should be determined by the Board of Adjustment (currently some requests go to the Parks and Recreation Board.)
- All requests for zoning or rezoning within the Lake Austin Watershed are reviewed by the Zoning and Platting Commission, which makes a recommendation to the City Council (as currently done.)
- All requests for variances from the environmental regulations, including CEF protections, shoreline relocation, lake fill, and construction on slopes are reviewed by the Environmental Board, which makes a recommendation to the Zoning and Platting Commission. Decisions of the ZAP may be appealed to the City Council (currently some requests go to PARB and some to the BoA).

C4. Have an educational component to this process.

C5. Create a financial plan with revenue resources to support a new Lake Use Management Department. Potential resources should include, but not be limited to, private/public contracts from concessions, boat ramp launching/parking fees, and gas proceeds.

Boat Lift Remodeling

BLR1. Treat stand-alone boat lifts like boat docks.

Marine Toilet Regulation

MT1. Direct the City Manager to immediately identify and have the health authority referenced by LDC 6-5-26 inspect all watercraft that have marine toilets to ensure that waste cannot be directly discharged into the water (i.e. any “Y” valve are secured in the closed position by padlock, non-resealable ties, removal of handle or other physical barrier). Have the City Manager clearly identify how to report violations and to whom.

MT2. Require commercial watercraft operators to provide proof of compliance with the Texas Party Boat Operator Licensing Program and the TCEQ MSD Certification program prior to issuing or renewing a license to operate on Lake Austin.

MT3. Direct the City Manager to apply for a TPWD Boating Access and Boat Sewage Pump-out Grant of up to \$500,000 by the application deadline of October 31, 2013 (<http://www.tpdw.state.tx.us/business/grants/trpa/>) for the purpose of providing additional and improved boat ramp and boat sewage pump-out stations for watercraft operating on Lake Austin.

MT4. Request the Water and Wastewater Commission follow-up on this issue and help ensure that watercraft with marine toilets operating within the city jurisdiction are inspected by the City and that adequate sewage pump-out stations are provided on both Lake Austin and Lady Bird Lake.

MT5. Update and improve the pump-out station at Walsh.

MT6. Consider creating a second pump-out station on Lake Austin.

MT7. Tie the pump-out station to the RV pump-out at Emma Long Park.

Wildfire

WF1. This Task Force supports the efforts of the Joint Wildfire Task Force.

Upzoning

UZ1. The ability of homeowners to exempt themselves from some of the environmental restrictions of Lake Austin zoning through the present upzoning process has the potential for both environmental harm and inequitable treatment of neighbors. The City should address this issue.

On-site Sewage Facilities (OSSF)

OSSF1. This Task Force supports the Austin Water Utility's current efforts to update the City of Austin on-site sewage facilities (OSSF) standards to provide a greater level of protection for the environment and public health and safety.

Work Group Analyses by Issue

This section includes, for each issue of the 16 issues discussed by the full Task Force:

- the Work Group report, when one exists,
- the identified stakeholder interests,
- the consensus recommendations and
- the entire list of brainstormed options.

Please note that the brainstormed options include some that had very strong support but not consensus, as well as others that had very little support.

Issue: Hydrilla and Aquatic Weeds

Work Group Report

Lake Austin has been clogged by thick strands of Hydrilla and Milfoil (both known as aquatic macrophytes) on and off for the last 10+ years. For the last 2 years, the upper end of the lake has had the most severe infestation of invasive macrophytes experienced to date. Prior to 1999, all macrophyte management activities on the Lake were focused on Milfoil, including the seasonal lowering of the lake.

- Are the current management program components effective and what effect(s) do these non-native invasive macrophytes have on Lake Austin's ecosystem?
- Does the stocking of non-native Asian Grass Carp have discernible effect(s), positive or negative, on Lake Austin's ecosystem?

Problem Analysis

- Excessive macrophyte growth causes, has caused, or may cause the following problems:
 - It reduces the accessibility of the lake for all users.
 - It likely contributed to or was a major factor in a drowning death on Lake Austin in November 2001.
 - It causes erratic driving among boat drivers, as they must often swervedramatically to avoid hitting a mat of Hydrilla.
 - It has, in 2002, slowed flood waters causing them to spill over Lake Austin's banks, flooding homes, damaging docks, shoreline armament, uprooting trees and exacerbated shoreline erosion and mass wasting.
 - It has caused \$500K+ damage to the power generation equipment and power loss due to shut downs at Tom Miller dam due to large mats of macrophytes ripped from the lake's channel floor during high flow conditions.
 - It can have an impact on dissolved oxygen, pH and temperature, which has a direct effect on the aquatic ecosystem.
 - It, excessive (over 30% coverage) macrophyte growth, including but not limited to Hydrilla and Milfoil is believed to negatively impact fisheries.
- The dominance of Hydrilla and Milfoil in the lake at the expense of other more beneficial macrophytes alters the ecosystem and can have a negative impact on aquatic species diversity and abundance.
- Hydrilla and Milfoil may provide a sink for nutrients and stabilize bedded sediments, masking the effect of other water quality impacts.

Cause Analysis

- Review of semi-quantitatively estimates of macrophyte coverage including Hydrilla and Milfoil over the last 14 years as measured by TPWD staff.
- Review of the City of Austin's Lake Austin Hydrilla Management Plan drafted in 2000.
- Consideration of citizen testimony, the [overwhelming] majority of which, cited Hydrilla or 'weeds' as the most significant problem for Lake Austin.
- The entire Lake Austin Task Force has received a presentation and question and answer sessions with City of Austin staff and Texas Parks and Wildlife staff regarding aquatic macrophyte management.
- Review of management program histories, successes and failures, and applicability for other water bodies. The current City of Austin protocol for the reduction of Hydrilla overgrowth is to attempt to maintain, through regular stockings, a 50:1 ratio of Asian Grass Carp per acre of Hydrilla. Measurements of Hydrilla coverage in the lake occur twice a year (Spring and Fall), although more frequent measurements have occurred in the past.

Remedy Analysis

It is recommended that the following remedies be considered:

- Update the *Lake Austin Hydrilla Management Plan* to be consistent with the current state of science regarding aquatic macrophyte management, the specific process for determining Asian Grass Carp stocking rates, costs, and applicability with current state and federal water quality standards.
- Development of a proactive and predictive process for determining Asian Grass Carp stocking rates, as opposed to the current process solely based on macrophyte coverage estimates.
- Increase the frequency of macrophyte coverage surveys that are conducted in conjunction with the Texas Parks and Wildlife Department and adjust stocking rates accordingly.
- Continue to work with the LCRA in supporting seasonal water volume draw-downs in the lake.

Interests Considered and Consensus Options for Hydrilla/Aquatic Weeds

Interests (Unmet Needs)	Options that Achieved Consensus
<ul style="list-style-type: none"> • Prevent damage to assets and property, including erosion • Safety for recreational users • Safety of water quality • Cost savings, e.g. LCRA replacing filters is costly • Preserving power production • Protecting fish habitat • Property owners ability to repair docks • Protecting bass habitat specifically • Commercial interests, maintaining the ambiance of the lake 	<ul style="list-style-type: none"> * Update the Lake Austin Hydrilla Management Plan to be consistent with the current state of science regarding aquatic macrophyte management, the specific process for determining Asian Grass Carp stocking rates, and applicability with current state and federal water quality standards. * Document and continue the iterative, proactive process for determining Asian Grass Carp stocking rates to achieve adaptive management. Increase the rate to 55.5%. Also improve the purchasing process to allow staff to react quickly, be more nimble. * Ask all agency partners to budget funds for grass carp purchase. * State that the Task Force believes that Asian

	<p>Grass Carp are the main keystone, dependable solution to the Hydrilla problem. They are not the exclusive control option.</p> <p>*The Task Force has examined and ruled out some possible lake-wide treatment options for the City including systematic mowing, pulling it up by the roots, and completely draining the lake and pulling it up.</p>
--	--

All Other Brainstormed Options for Hydrilla/Aquatic Vegetation

- Development of a proactive and predictive process for determining Asian Grass Carp stocking rates, as opposed to the current process based solely on macrophyte coverage estimates.
- Increase the frequency of macrophyte coverage surveys that are conducted in conjunction with the Texas Parks and Wildlife Department and adjust stocking rates accordingly.
- Continue to work with the LCRA in supporting seasonal water volume draw-downs in the lake.
- Consider a moratorium on mowing Hydrilla and study the impact of mowing.
- Share Hydrilla management information during the permitting process.
- Increase enforcement and education for those who obtain permits for mowing Hydrilla, so they know to put the mown material far enough off the shore.
- Provide additional staff support.
- Chemical treatment (this option was rejected by the workgroup, along with others.)
- State that the Task Force supports what the city is doing and that they believe Grass Carp are the most viable, long-term solution to the Hydrilla problem.
- Increase education and outreach regarding handling and removal and the permitting process for Hydrilla.

Issue: Sound/Noise

Work Group Report

Users of Lake Austin and property owners surrounding Lake Austin continue to complain regularly of noise coming from boats on the lake. The most frequently complained of noises are (1) amplified sound from boats and (2) boat engine/exhaust noise.

Problem 1 (Amplified Sound) Analysis

- Most motorized boats on the lake have sound equipment on board.
- The City of Austin has long had restrictions on amplified noise for cars and related motor vehicles.
- In 2009, City Council enacted a similar ordinance applicable to watercraft. The law states that “a person may not operate sound equipment in a watercraft audible or causing a vibration 100 feet from the equipment.” [Austin City Code §9-2-3(A)(6)]
- Since adoption of the 2009 law, amplified sound on the lake is reduced but citizens continue to complain that enforcement appears to be inconsistent. While enforcement in the coves seems to be regularly applied, enforcement on the main waterway of the lake appears to be less regularly applied.

Problem 2 (Engine/Exhaust Noise) Analysis

- Combustion engines produce noise.
- The Texas Water Safety Act provides that “a motorboat operating on the water of this state must have an exhaust water manifold or a factory-type muffler installed on the engine.” [Texas Water Safety Act § 31.070]
- Citizens continue to complain about engine/exhaust noise.

Remedy Analysis

It is recommended that the following remedies be considered:

- Direct law enforcement officers patrolling the lake to provide more consistent enforcement of the existing sound ordinance applicable to watercraft.

Interests Considered and Consensus Options for Sound/Noise

Interests (Unmet Needs)	Options that Achieved Consensus
<ul style="list-style-type: none"> • Quality of life for those who use the lake and those who live or work near it. Quality of life for lake users and homeowners. • Recognize that noise violations are prioritized as #4 (last) in the priority system. • Acknowledge which department/organization has the better equipment and sufficient staff to handle violations. • Acknowledge that officers can deal with noise from docks under a different 	<ul style="list-style-type: none"> ✱ Direct law enforcement officers patrolling the lake to provide more consistent enforcement of the existing sound ordinances applicable to water craft. (Note: This will apply to both amplified sound and engine/exhaust noise.) ✱ Simplify the process for getting APD boats repaired, so it can be accomplished more quickly, so that APD is not chronically short of boats for Lake enforcement. ✱ Add to the existing law enforcement database, a database that allows officers to track violators of the sound ordinance on the lake.

ordinance other than noise.	<ul style="list-style-type: none"> ✱ Set the allowable distance for all types of noise to 100 feet. ✱ Improve enforcement [of noise regulations] by increasing the number of boats and officers on Lake Austin, distributing patrol boats throughout the length of the lake, and increasing penalties.
-----------------------------	--

All Other Brainstormed Options for Sound/Noise

- Provide law enforcement officers with needed equipment.
- Remove sound systems on boats.
- Increase funding for additional patrol equipment.
- Provide increasing penalties for frequent violators of the noise ordinances and maintain a database of violators of sound ordinances.
- Establish a zero-tolerance enforcement policy during certain periods of time (similar to “no refuse weekends”).
- Reduce the limit for noise from 100 feet to 50 feet.
- Put up signs at boat ramps about the noise ordinances.
- Enforce noise trespass from amplified sound coming from land and commercial cruise boats.
- Modify the sound ordinance to apply also to engine noise and amplified sound within 100 feet of the shoreline.
- Modify the municipal sound ordinance to also apply to engine noise.
- Write the engine noise provision (from state law) into the municipal noise ordinance. Include noise from docks.
- Improve enforcement [of noise regulations] by increasing the number of boats and officers on Lake Austin , distributing patrol boats throughout the length of the lake as needed, and increasing penalties.
- Set the allowable distance for all types of noise to 75 feet.

Issue: Water Quality and Monitoring

Work Group Report

Lake Austin is a valued public asset, and protection of its water quality and aquatic integrity is considered a high priority by this task force. To this end, the following questions were evaluated:

- Does the currently available data indicate toxicants, including but not limited to pesticides, herbicides and petroleum products present in the lake's water or sediments at levels that pose unacceptable risk to human health and the environment?
- Are nutrient and sediment loading in the lake increasing in intensity?
- Are contact recreational uses at risk due to elevated bacterial levels?
- Is the current monitoring of the lake's water chemistry and aquatic integrity adequately robust to decipher potential impairments (including but not limited to increased nutrient and sediment loading, herbicide and pesticides, petroleum products, increased turbidity, low dissolved oxygen) and causes now and into the future?
- Considering the lake is an unnatural, highly managed impoundment, with near shore areas dominated by residential and commercial development; and home to numerous non-native and in some cases invasive plant and animal species can its aquatic integrity be effectively evaluated and ranked using conventional methods?

Problem Analysis:

Pesticides and Herbicides

- Pesticide and herbicide are mostly likely to enter the lake through residential and commercial land application in areas directly adjacent to the lake and throughout its watershed.
- Available surface water and sediment data does not indicate legacy pesticides and herbicides at levels that pose risk to human health and the environment are present or entering the lake.

Petroleum Products

- Fuel storage, watercraft fueling practices (including but not limited to residential docks, boat ramps and the Lake Austin Marina) and watercraft uses on the lake were identified as the primary potential contributors to petroleum products or hydrocarbon compounds in the lake.
- Secondary sources including rainfall runoff from roads and parking lots; above-ground and -underground storage tanks were also considered.
- Available surface water and sediment data does not indicate petroleum products or hydrocarbon compounds at levels that pose risk to human health and the environment are present in the lake.

Nutrients and Sediment Loading

- A trending increase in the severity, frequency and duration of blue-green algae blooms on the lake is apparent. These blooms are indicative of eutrophication (increasing nutrient levels). Eutrophication is a natural process that all lakes go through, however human activities often exacerbate and accelerate the process.
- Increased sediment loading as a result of land use practices and on-site sewage facilities (OSSFs-septic tank) in the watershed are believed to be the primary sources of nutrient loading in the system.

Contact Recreation Impairments

- Water bodies are most likely to have elevated bacterial levels following significant storm events.
- Multiple creeks within the Lake Austin watershed are currently listed or have been listed in the recent past for contact recreation impairments due to elevated bacterial levels.
- These impairments are likely due to failing conventional gravity sewage lines and OSSFs.
- Currently only Taylor Slough South is listed on the Clean Water Act 303d list for contact recreation impairment due to elevated fecal bacteria.

Low Dissolved Oxygen

- Lake Austin was listed on the 1998 303(d) list for aquatic life use impairment due to low dissolved oxygen levels immediately below Mansfield Dam at the upstream end of the lake.
- A Total Maximum Daily Load analysis was completed in November 2000, with the major findings that the low DO is a result of water released from the bottom of Lake Travis, which is thermally stratified during the summer months. The LCRA installed an aerator on one turbine to effectively aerate the water used and released.
- Dissolved oxygen levels are at times still below what is considered ideal for high aquatic life in the upper portions of the lake.

Monitoring

- Multiple departments and agencies both inside the City of Austin and outside currently or in the past have monitored water quality and aquatic integrity of the lake. Concerns that these data are not fully utilized in assessments and a lack of data sharing amongst groups has arisen.

Cause Analysis:

The following information (but not limited to) was reviewed:

- Lake Austin's sediment and water quality data house in the State's TRACs system and the City of Austin's database.
- City staff compiled specific data, and provided multiple presentations on Lake Austin's Water Quality.
- The USEPA's National Lakes Assessment report was review.
- TNRCC, 2000 *A Total Maximum Daily Load for Dissolved Oxygen in Lake Austin*

- TCEQ, 2011. *Trophic Classification of Texas Reservoirs 2010 Texas Water Quality Inventory and 303(d) list.*

Remedy Analysis:

The Water Quality and Environment work group recommends the following:

- Continued effort to consolidate and collaborate in lake planning and monitoring programs amongst stakeholders and involved agencies with increased data sharing.
- Development of a Historical Data Review for Lake Austin, to identify data gaps and needs and an annual Lake Austin Report, presenting monitoring methods, data collected and analysis procedures.
- Continued effort at deducing the causes of blue-green algae blooms on the lake.
- Consideration of establishing, either on the staff or department level, a group whose sole responsibility is management of Lake Austin watershed.

Interests Considered and Consensus Options for Water Quality & Monitoring

Interests (Unmet Needs)	Options that Achieved Consensus
<ul style="list-style-type: none"> • Maintain the high water quality • Public safety, including for swimming and drinking • Have transparency for the public about the water quality of Lake Austin • Preserve water quality for fish and other species • Acknowledge the impact of decreasing water flow through the Lake because of the drought. • Understand the relationship between water quality and development • Interest in developing the land around the Lake. 	<ul style="list-style-type: none"> * Consolidate and coordinate in lake planning and monitoring programs amongst stakeholders and involved agencies with increased data sharing. * Develop a Historical Data Review for Lake Austin, to identify data gaps and needs and an annual Lake Austin Report, presenting monitoring methods, data collected and analysis procedures. * Put resources into place and continued efforts at deducing the causes of blue-green algae blooms on the lake, such as source tracking. * Consider establishing, either on the staff or department level, a group whose sole responsibility is management of the entire Lake Austin watershed. * Within three years, the City will have established with the best scientific knowledge, the causes of blue-green algae blooms on the lake. * As a policy recommendation, the City should upgrade its standards for OSSFs. * Add the phrase “and provide easy access for the public to this information” to Option A.

All Other Brainstormed Options for Water Quality & Monitoring

- Establish a body responsible for consolidation and coordinating lake planning and monitoring programs amongst stakeholders and involved agencies with increased data sharing.
- Continue to coordinate with LCRA to maintain water quality standards. (*The group agreed that this was included in Option A.*)

Issue: Erosion

Interests Considered and Consensus Options for Erosion

Interests (Unmet Needs)	Options that Achieved Consensus
<ul style="list-style-type: none"> • Limiting erosion to protect this natural resource • Enjoyment of the Lake by a variety of users and property owners • Safety of lake users • Not concentrating specific uses in just one area • Limiting the negative impact of erosion on flora and fauna • Enforceability of rules • Don't study problems if there's no solution • Acknowledge that the City doesn't have unlimited resources 	<ul style="list-style-type: none"> ✧ Develop a process for creating navigation zones to limit erosion. ✧ Support stream and creek bank stabilization and restoration and education about these issues. ✧ The Task Force recommends that the City of Austin fund a study that is a scientific analysis of waves and erosion, to include watercraft user origin. (Origin meaning homeowner, marina or trailered vessel.)

All Other Brainstormed Options for Erosion

- Limit the number of boats.
- Staff public ramps on weekends and holidays.
- Limit the number of boat docks and use a model to determine the number.
- Create no-wake zones.
- Make time or place limits (temporary and/or permanent) on certain Lake uses.
- Within a year, do a study to understand the sources of wave-caused erosion, e.g. using wake sensors. Investigate what are waves' impact on erosion? Where is the traffic that's causing the problems? What are the causes of erosion?
- Recommend that the City Council fund a study to be conducted as soon as possible to apply NOAA's methodology to Lake Austin boat wakes. Expected outcome of the study would be a recommendation of speeds not to be exceeded by those boats that create the biggest waves.
- Recommend that the City Council fund a study to be conducted as soon as possible to apply NOAA's methodology to Lake Austin boat wakes.
- Language of option A without a requirement to follow the NOAA methodology. State that the study should include a source/user origin component.

Issue: Commercial Uses

Work Group Report

There is the presence of various users of Lake Austin whose business depends on the lake (and in some cases public docks or piers) and who profit from that use. Included are party boats, tour boats, boat rental operations, marinas, restaurants, boat repair facilities, tow boat services etc.

There is no licensing process or system for executing that licensing for lake use by commercial operators. There is one sewage pump out facility on the lake. There is one gas fueling facility. In addition there are undeveloped opportunities for commercial and recreational operations on Lake Austin that could generate funding for improvements on the lake such as increased lake patrol presence, Hydrilla control or others. There is also the opportunity to increase recreational and tourist-based activities.

Conversely there are some commercial uses that should neither be encouraged nor permitted. Included in this category would be marinas and boat storage facilities.

Problem Analysis

- The number and type of commercial operations on the lake has not been compiled.
- Users of the lake in its upper reaches must travel a significant distance to purchase gas on the lake.
- Unregulated and unsupervised commercial operations may be a source of trash, pollution and higher levels of traffic that may lead to safety concerns.
- There is the opportunity to provide funding for lake related activities by collecting fees for using boat launching ramps. These fees can pay for attendants at the ramps during summer months.
- Because the lake is the city's drinking water supply it's important to address possible pollution sources. All boats that carry larger numbers of people must have adequate sewage holding capabilities and have access to a properly maintained and readily accessible pump out station.
- There may be inadequate codes, ordinances or policies that address the construction of marinas or boat storage facilities.
- There could be more emphasis on recreational activities that may be a funding source. There could also be an emphasis on developing ecotourism.

There was no Remedy Analysis by the Work Group

Interests Considered and Consensus Options for Commercial Activities

Interests (Unmet Needs)	Options that Achieved Consensus
<ul style="list-style-type: none"> • Public safety, including access for police and fire department • Commercial interests, having a successful business, making money • Having the amenity of the lake and access to that amenity • Providing the City with revenue to increase the budget for Lake-related costs • Improved services for users, including parking • Promoting water safety • Easier access to safe fueling • Accessibility to boaters • Understanding who the users are • Preserving the beauty of particular areas • Reducing pollution, litter • Appropriate spacing for users 	<ul style="list-style-type: none"> * Develop and maintain a data bank of commercial users of the Lake and adjacent Lake shores. * Investigate possible locations for a second gas fueling station and additional sewage pumping facilities, considering environmental impacts as well as other factors. * Investigate, do a feasibility study, of possible commercial operations such as canoe, kayak, paddleboard rentals at Emma Long Park or other locations. * Provide for boat launching fees at public ramps and employ attendants to collect the fees. * Utilize funding sources such as Parks and Wildlife's Paddling Trails program or LCRA's Colorado River Trails program to increase recreational opportunities. * Research possible public-private partnerships or other funding strategies for construction of new concessions and/or City facilities. * Improve public boat ramps and parking, especially at Walsh. * Establish a licensing system and process for commercial users of the lake with appropriate fees and appropriate oversight.

All Other Brainstormed Options for Commercial Activities

- Establish a licensing system for commercial users of the Lake with appropriate fees.
- New marinas or boat storage facilities not be allowed.
- Promote nature and ecotourism-related activities such as birding.
- \ Create an organization to promote tourism and recreation on Lake Austin, including exploring possibilities of a Lake Austin Scenic Vista Corridor. Explore opportunities for funding with the Governor's Enterprise Fund.
- Limit additional marinas.
- Relative to recommendation D, clarify the code for different uses of the shoreline, for example, for motorized (farther from shore) and non-motorized watercraft (closer to shore.)

Issue: Funding

Interests Considered and Consensus Options for Funding

Interests (Unmet Needs)	Options That Achieved Consensus
<ul style="list-style-type: none"> • The City being able to actively manage the resource of the Lake. • Updating infrastructure to reflect the beauty of the Lake. • Equitability – those who benefit the most help fund it. • Spreading support for the Lake among all users. • Provide funding for a Department to take on lake management duties. • Clarify who's in charge. 	<ul style="list-style-type: none"> ✱ Create a Master Plan for the Lake. For example, identify long-term and short-term projects. Long-term projects might be funded through bonds. ✱ Establish license fees for commercial use of the Lake. ✱ Establish launching fees with the funds going to Lake management. ✱ Get a commitment from other agencies, such as LCRA, to fund Lake activities. ✱ Dedicate all lake usage fees to Lake-related expenses. ✱ Work with Travis County to ensure that any existing residential shoreline tax be applied to Lake Austin maintenance and operation. (The group will first verify that such taxes exist.) ✱ Investigate the possibility of establishing license fees for private docks on public land. ✱ Dedicate a particular amount of City of Austin general funds coming from property taxes on properties in the Lake Austin watershed to Lake Austin-specific uses. ✱ Create a financial plan with revenue resources to support a new Lake Use Management Department. Potential resources should include, but not be limited to, private/public contracts from concessions, boat ramp launching/parking fees, and gas proceeds.

All Other Brainstormed Options for Funding

- Establish recreational boat user fees (e.g. annual fees, like they do on beaches.)
- Establish license fees for private docks on public land.
- Investigate possible government grants for funding Lake activities.
- Investigate the feasibility of a special taxing district for Lake maintenance. Create a financial plan with revenue resources to support a new Lake Use Management Department. Potential resources should include: public/private contracts from

concessions, licensing fees for private dock on public property, and boat ramp launching/parking fees, and gas proceeds.

- Create a financial plan with revenue resources to support a new Lake Use Management Department. Potential resources should include but are not limited to: public/private contracts from concessions, licensing fees for private dock on public property, and boat ramp launching/parking fees, and gas proceeds.

Issue: Traffic

Interests Considered and Consensus Options for Traffic

Interests (Unmet Needs)	Options That Achieved Consensus
<ul style="list-style-type: none"> • Have our recommendations be legal • Protect public safety • Think of recommendations that would solve the problem and let the City work on legality • Acknowledge the existing conflicts between Lake residents and day users of the Lake • Manage diverse uses and their interests • Seek solutions that are practical and enforceable • Manage land vehicles (cars, trucks, trailers) associated with Lake use • Respect private property owners' rights • enforceability and practicality, • fairness and a desire not to totally ban any particular use, • Desire to spread out various uses of the lake rather than segregating them into specific areas, • Desire for any ban to apply to the entire lake, and • Concern that erosion caused by wakes would not be reduced with a ban for only small periods of time. 	<ul style="list-style-type: none"> ✱ Collect a fee for launching at the City of Austin public ramps. Revenue should be dedicated to Lake Austin needs, such as maintaining boat ramps, improving boat ramp trailer parking areas, converting vertical bulkheads and dealing with invasive species. ✱ Enforce parking restrictions at City of Austin public ramps. Encourage Travis County to enforce parking at Loop 360 boat ramps, including the illegal parking along the shoulders of Loop 360. ✱ Collect a fee for launching at the public ramps that would be used to employ an attendant at the ramps. ✱ Special attention is needed at Emma Long Park to keep swimmers inside of the swim areas. More buoys may need to be added along the shoreline of the camping area to separate boat traffic and campers. ✱ Designate 50 feet from the shore as a no-wake zone.

All Other Brainstormed Options for Traffic

- In conjunction with collecting boat launch fees, maintain accurate numbers of boats launched at each City of Austin public boat ramp.
- Encourage the Lake Patrol to establish standards for hazardous wakes and to actively enforce these standards.
- Consider utilizing no-wake zones in designated areas. Specifically, establish a no-wake zone from Tom Miller Dam to the end of Lake Austin Marina for a trial period of one

summer. Consider adopting this no-wake zone as a permanent no-wake zone during summer months only.

- Survey the number of boats launched from the public boats ramps on weekends during summer months. Following this analysis consider reducing traffic on the lake by placing a quota on the number of boats that may be launched from the public boat ramps on weekends during summer months. This quota would dovetail with concerns regarding limited parking.
- Prohibit any water sport dependent on being pulled by a boat or using waves generated by a boat unless the person behind the boat is on a rope of at least 50 feet in length.
- Limit the size of boats with planing hulls in use on Lake Austin to 24 or fewer feet.
- Encourage the lake patrol to establish standards for hazardous wakes and to actively enforce these standards.
- Consider utilizing no wake zones in designated areas.
- To reduce congestion and promote safety, boaters using boat ramps should be clear the boat ramp area before stopping to off load any skiers, i.e. create a buffer zone around the ramps.
- To better manage lake traffic, non-motorized boats should be encouraged to operate within 50 feet of the shoreline. When crossing the lake, the non-motorized boater should cross at a safe time and without delay. Non-motorized boats should not remain in the river channel longer than necessary to cross the river.
- Just as on land roadways, slower traffic on a river should stay to the right of the center channel. Boaters who wish to stop on the lake should move out of the center of the river channel toward the right-hand shoreline.
- Lake Patrol should enforce state code- 31.101. Obstructing Passage (No person may anchor a boat in the traveled portion of a river or channel so as to prevent, impede, or interfere with the safe passage of any other boat through the same area.)
- Notice should be posted at public parks, swimming areas, boat ramps informing the public of these regulations and recommendations. COA should notify all private park owners, marinas & neighborhood associations along the lake of our recommendations.
- To reduce congestion, boaters using boat ramps should be clear the boat ramp area before stopping to off- loading any skiers.
- The City of Austin should increase the number of personnel assigned to the Lake Patrol.
- The Lake Patrol should have the resources to ‘control & manage’ boat traffic on the lake.
- During the summer months, the Lake Patrol should have three stations on Lake Austin, at Mansfield Dam, Emma Long Park and Tom Miller Dam. This will allow the Lake Patrol to monitor 5-6 miles sections of the lake and actually ‘control & manage’ boat traffic.
- The City of Austin should enforce Texas Water Safety Act, especially sections § 31.094. Reckless or Negligent Operation; § 31.098. Hazardous Wake or Wash and § 31.101. Obstructing Passage.
- Data should be kept on boaters who violate the Texas Water Safety Act and repeat offenders should be removed from the lake.
- Do a scientifically valid study of different users of the Lake – the number and type. (For example, walk the marinas and count trailers, have the Lake Patrol use counters and count boats the entire length of the Lake.

- Establish a no-wake zone from Tom Miller Dam to the end of Lake Austin Marina for a trial period of one summer. Consider adopting this no-wake zone as a permanent no-wake zone during summer months only.
- Prohibit motorized watercraft from operating, except at cruising speed, within 50 feet of the shoreline.
- In cooperation with the Lake Patrol, designate some high traffic areas of the Lake during high-use weekends (Memorial Day, Labor Day, 4th of July) as areas where wake-generating devices are not allowed. Use the same process as is used for jet skis on those weekends.
- Try option BB for a year and gather data to see if it helps (do a 1-year pilot).
- Prohibit any water sport dependent on being pulled by a boat or using waves generated by a boat unless the person behind the boat is on a rope of at least 50 feet in length.
- During the three highest use weekends prohibit wake surfing.
- Not allow wake boarding or surfing during the three highest use times in certain defined areas of the lake.
- Not allow wake boarding or surfing during high- use times in certain defined areas of the lake.
- Not allow wake boarding or surfing during high- use times anywhere on the lake.
- During known high-use weekends, prohibit devices such as fat sacks that are designated to increase wake size. Do this as a pilot and see if it's effective.
- Conduct a pilot study in which wake boarding or surfing is not allowed during high- use times anywhere on the lake.

Issue: 50% Rule

Work Group Report

Issue: 50% Rule states that 50% of the boat dock or shoreline modification may be maintenance and permitted through a site plan exemption, a site development permit is not required.

Problem Analysis: Describe how the problem was analyzed.

City boat dock review team discussion and issues were listed.

This recent code change has been problematic because it is too subjective and vague. It needs to be clarified and the 50% rule needs to be refined. It is unlikely that only 50% of the framing of a dock needs replacing or less than 50% of the length of a bulkhead is failing. Entirely new docks are being constructed with site plan exemptions using steel instead of wood, bypassing review process and effectively allowing docks to maintain non-complying status rather than meeting current code. Currently applicants are claiming that replacing all of the supporting elements is ok. (but current code states 50% is ok) There is difficulty in defining 50%. Anything greater than 50% requires a demolition permit.

Another issue is the fee. The amount of time that Environmental inspection needs to devote to oversight far exceeds the \$94 review fee for a site plan exemption. Site plan exemptions are not reviewed by ERM, PARD, Flood Plain Management, or Building Inspection etc.

Cause Analysis: Describe the information that was reviewed to determine the cause of the issue.

LDC, Application Packet 19

Applicable LDC sections need to be revised.

📖 § 25-2-961 NONCOMPLYING DEFINED.

📖 § 25-2-962 STRUCTURES COMPLYING ON MARCH 1, 1984.

25-2-963 MODIFICATION AND MAINTENANCE OF NONCOMPLYING STRUCTURES

Remedy Analysis:

Need to revise application packet 19 and LDC sections to restrict what may qualify as an exemption.

City program set up to require each dock be registered/tag and grandfathered at that point.

Replacing up to 50% of the piers would require as-built and proposed repair document on file (like a site plan) and a building permit, but not a full blown site plan.

Need to define routine maintenance as redecking, replacing handrails or reroofing.

Interests Considered and Consensus Options for the 50% rule

Interests (Unmet Needs)	Options That Achieved Consensus
<ul style="list-style-type: none"> • Avoiding people “getting around” the requirements. • Property owners being able to maintain their docks and bulkheads without requiring a complete remodel. • Not promoting noncompliance. • Establishing a clean baseline of what’s there and what’s compliant. • Safety, water quality, reducing erosion • Having a practical solution • Having a legal solution • Eventually, getting all docks and bulkheads into compliance. 	<p>✳ Create a boat dock registration process that is required. If you register within a certain number of years of the establishment of the registry, you can keep your noncompliant dock in perpetuity as long as you don’t expand its footprint. The footprint (horizontal and vertical) and location would be grandfathered. Registration would require a photo and drawing and a \$50-\$75 fee. The fee would be used to support staff to do the work and verify the data. Use information that is already in the files. If your dock was built after 1981 it must have a permit.</p> <p>✳ Allow a 25% rule with a site plan exemption for bulkheads. You cannot repeat this exemption within a 3-year period..</p> <p>✳ Modification, maintenance, repair, replacement or reinforcement of boat docks under a site plan exemption (SPE) should be limited to non-structural changes to existing components. Allowed work under an SPE may include repair or replacement of the existing</p>

	<p>decking, railing, roofing etc. The following changes are NOT allowed:</p> <ul style="list-style-type: none"> • Changes to structural components (load bearing beams or walls, piers, roof structural components, etc.) no additional walls (load bearing or not) • No additional height, width or depth • For legal, non-complying structures, nothing that increases non-compliance. <p>★ Code should be changed to require a pre-construction meeting with Environmental Inspector prior to work commencing under an SPE. All other boat dock remodeling should require a site plan with associated drawings, pre-construction meeting and inspections.</p>
--	---

All Other Brainstormed Options for the 50% Rule

- Have a time period for registering your dock or bulkhead with a grandfathered “grace” period. After the grace period the City can verify if the work falls under the 50% rule. You have to wait two years for the next 50%.
- Have annual or semi-annual permits with a visible address. The money from those permits would be used for enforcement.
- Staff be specifically assigned to this and paid with the fees collected.
- Any new changes have to meet the new code.
- Option A plus a particular length of time after which you have to be compliant.
- Get registered and grandfathered for a year or so, but “sunset” the grandfathering so it doesn’t last forever.
- Make boat docks consistent with other building codes in the City.
- Treat docks separately from bulkheads.
- Have a “less than 50%” rule, for example, a “25% rule”.
- If it’s been grandfathered and you keep it stable, let it be.
- Write in the code the ability for staff to write an exemption if the structure couldn’t be made compliant without making it impractical or unsafe.
- Sunset noncompliant docks when the ownership transfers.
- Grandfather existing docks.
- For bulkheads, allow less than 50%.
- Have an exemption for not more than 50% within a 3-5 year period.
- Get your bulkhead to compliance if you transfer the property.
- Require disclosure to new owner if the bulkhead or dock is noncompliant.
- If you’re doing work IN the lake, you still need a site plan.
- Within [x] years, have staff inventory what’s there.
- If you work without a permit, increase the fine. Implement this policy consistently.

- Have option V but state that stand-alone boat lifts (in docks or outside them) that sit on the lake bed would not require site plans.
- Include a definition of boat lifts in the staff definitions/clarifications.
- Distinguish if the work is above or below the water level.
- Do a pre-construction conference.
- Distinguish between structural and non-structural changes.
- Recommend option V but exclude stand-alone boat lifts from that recommendation.
- Have the same 25% rule that the group agreed to for bulkheads, apply also to boat docks.
- Create a required boat dock registration process such that if the dock is registered within a certain number of years of the establishment of the registry, it qualifies as a legal, noncompliant dock in perpetuity as long as the horizontal and vertical footprint is not expanded. If a new dock is constructed under the site plan process, the new dock could use the same foot print as the non-compliant registered boat dock. Registration would require a photo and drawing illustrating the dock location and size and include a \$50-\$75 fee. The fee would be used to support staff to do the work and verify the data. Use information that is already in the files. If your dock was built after **2006**, it must have a permit. If your dock was built after that date and has no permit, it is illegal and must comply with current development codes.
- Although unpermitted boat docks built since 1974 are technically illegal, the City should work out an equitable resolution process for owners who bought their property after the boat dock was constructed. The policy and procedures should not be unduly burdensome and should take into account the interests of both the owner and their neighbors.
- Use a date of 1980.
- Use a date of 2000.
- Use a date of 1976.
- Consider adding a penalty for those who don't participate in the boat dock registration process.

Issue: ID Tags for Boat Docks

Work Group Report

Issue: ID Tags for boat Docks

Problem Analysis:

City has not enforced ID tags for boat docks but the ECM does give street address of residence as the proper ID for the dock. Street addresses would help locate people in emergencies.

Cause Analysis: ECM, 25-2-1173 Permit Required for Construction (b) requires an ID tag

ECM- 1.13.4 Identification Tag Required for Dock and Erosion

A. Guidance for Identification Tag Required for Dock.

Identification or registration tags shall be placed on the dock by an applicant as part of the requirements for a permit for construction of a dock as per LDC 25-2-1173(B). The identification or registration tag shall consist of the street address of the property on which the dock is located and shall be displayed on the lakeward side of the dock facing the centerline of the lake or slough on which it is located. The letters and numbers must be at least two inches in height, contrast with the background and be constructed with materials that resist water damage and deterioration by ultraviolet light.

Remedy Analysis:

ECM 1.13 language could be required to identify location of address on Site Plan. This section should go on to explain the process to identify all docks...retroactive identification

Application Packet #19 to ask for their ID number and where they will place it on their dock.

Owner to supply their own address letters.

However staff could use the excuse of a tag process and addressing to be a compliance issue. Obtaining a tag could establish a compliant boat dock for all of those docks that can not prove when they were permitted.

For existing docks and bulkheads, register, catalog and grandfather them from any action from the City, unless they are currently used for living quarters or business which would then require a license agreement with the City.

City needs an accurate database of the existing structures, grandfather everyone, enforce 50% going forward.

Interests Considered and Consensus Options for ID Tags for Boat Docks

Interests (Unmet Needs)	Options That Achieved Consensus
<ul style="list-style-type: none"> • Having correct and consistent information from the City about requirements, • Helping locate people from the lake in emergencies and improving safety, • Some people have privacy concerns • Helping the City identify if a dock is in compliance. 	<p>✱ Allow the City to decide how the tag requirement will be implemented as part of the boat dock registration process. City should consider using mile markers from the dam rather than street addresses.</p>

All Other Brainstormed Options for ID Tags for Boat Docks

- Have an ID that uses mile markers rather than street addresses.
- Have the City designate the mile marker number, e.g. have the EMS Department designate them.
- Have the address indicate whether they are compliant or non-compliant.
- Tie GPS coordinates to the tag.
- Have an address on the ID tag.
- Remove the need for an address on the tag from the Code.
- Allow the City to decide how the tag will be done as part of the registration process.

Issue: Other Boat Dock Issues

Interests Considered and Consensus Options for Other Boat Dock Issues

Interests (Unmet Needs)	Options That Achieved Consensus
<ul style="list-style-type: none"> • Clarity of definitions • Need for updating code to reflect changes in technology, etc. 	<p>★ City staff should:</p> <ol style="list-style-type: none"> 1. Update and modernize the Code relating to boat docks. 2. Review how terms are defined so that they are clear, consistent and workable. 3. Address the following issues identified by the Task Force: <ul style="list-style-type: none"> • <i>Definition of “boat lifts”</i> • <i>Question of height (limits)</i> • <i>Requirements for marinas may not make sense, e.g. parking requirements.</i> • <i>Address issues relating to the fact that not all docks are linked to residences.</i> • <i>Several issues of clarity around Article 13 such as the definition of a dock, the need to update to include newer technologies such as solar power, and the definition of a permanent structure.</i> 4. Provide opportunities for public involvement in these code changes.

All Other Brainstormed Options for Other Boat Dock Issues

- List the “other boat dock” issues as concerns and recommend that staff address these concerns.
- City staff should review all the Code relating to boat docks and make sure that all terms are defined and definitions are consistent and workable. City staff have been doing this research and we support them continuing their work.
- List the “other boat dock” issues as concerns and recommend that staff address these concerns and provide opportunities for public input.
- City staff should review all the Code relating to boat docks and make sure that all terms are defined and definitions are consistent and workable. Staff should present their code changes to Council.
- Update and modernize the Code relating to boat docks, including definitions, with opportunities for public input.

Issue: Variances

Interests Considered and Consensus Options for Variances

Interests (Unmet Needs)	Options That Achieved Consensus
<ul style="list-style-type: none"> • Make the variance process clearer, less “messy” • Have the variance process handled by a group that is appropriately knowledgeable and experienced with these specific issues. • Clarify the Land Development Code, 	<p>★ Specific to §25-8 variances: leave the code as it was changed in May 2012 except make Zoning and Platting Commission the approval body. (That is, no administrative approvals, goes to the Environmental Board for advisory purposes, then to Zoning and Platting for final</p>

<p>including avoiding the need for many variances.</p> <ul style="list-style-type: none"> • Not have staff duplicate or repeat work with no clear resolution. • Having clear findings of fact to allow the applicant, staff and recommending body to make wise decisions. • Being consistent with other City variance processes and being internally consistent and predictable. • Having the deciding body have sufficient experience and expertise in dealing with these issues. • Having an appropriate approving body in the interim while changes are being studied. • Having a body that uses findings of fact. • Having a logical system for handling variances. • Efficient processing of requests for variances. • Clarity of the process so people know what to expect. • It would be a relief to have all variances handled in one place. • Have a fully thought out recommendation • Having a process that provides for public input. 	<p>review and decision.)</p> <p>✱ The Task Force believes that the Parks and Recreation Board is not the appropriate venue for variance approvals. These requests should go to a more appropriate Board. City staff should consider deeply, in conversation with other relevant groups, who is the most appropriate Board to approve variances. The Task Force is not necessarily asking for a new Board to be created. The Task Force encourages a process that uses findings of fact.</p>
---	---

All Other Brainstormed Options for Variances

- Leave §25-8 (water quality & environmental) variances with the Zoning & Platting Commission.
- Leave §25-8 (water quality & environmental) variances in the Planning Commission
- Ask staff to study deeply the question of the role of Parks and Rec Board, especially in development-related cases.
- Put navigation issues in the Public Safety Commission or a similar commission.
- State that the Task Force believes that PARB is probably not the appropriate venue for all except §25-8 variances and ask staff to study deeply who would be better suited for this role.
- Put variances with the Environmental Board.
- State that this is a very urgent issue and ask that it be dealt with expeditiously.
- Impose a moratorium on variances until the ordinance can be changed.
- Have a single Board oversee all development of shoreline variances; one that has technical staff with appropriate knowledge of science, zoning and land use.

- State that the Task Force does not intend the Council to create a new Board, but use an existing Board that uses findings of fact.
- Create a Board that just focuses on Lake Austin.
- Allow §25-8 administrative variances as they existed before the code change.
- Have all §25-8 variances go to the Environmental Board, with no option for administrative approval.
- Leave the ordinance as it currently is (i.e. leave the May 2012 change in place with no administrative approval for 500' of shoreline, all variance requests go to the Planning Commission.
- Repeal the May 2012 changes and go back to the way it was before that change (with administrative approval for some cases and others going to the Zoning and Platting Commission.)

Issue: Public Education and Outreach

Interests Considered and Consensus Options for Public Education and Outreach

Interests (Unmet Needs)	Options That Achieved Consensus
<ul style="list-style-type: none"> • Neighborhood Associations around the Lake want and need information • Homeowners on the lake want and need information on best environmental practices for erosion, bulkheads, fertilizers, stream bank restoration, public safety and flood protection. • Lake users need to know rules, regulations, environmental information and information about flood and weather alerts. • Neighbors near boat landings need information. • The Public Safety and other City departments have an interest in public education. • Environmental groups have an interest in public education on water quality issues, birding activities, development and stream bank issues. • The public and homeowners in the Lake watershed need information about who has authority and lake management activities. • People in the watershed need education about the dangers of wildfires and how to prevent or protect themselves and their property. • People living along creeks that flow into Lake Austin need information. • Developers and homeowners need information about building regulations. • The Chamber of Commerce has an interest in promoting information about birding, swimming, boating, other recreational opportunities, environmental protection and promoting tourism. • Separate the regulatory functions from education or advisory roles. 	<ul style="list-style-type: none"> * Ask the Environmental Education group in Watershed Protection to focus public education and outreach efforts towards homeowners in the Lake Austin watershed on topics including: best environmental practices for erosion, bulkheads, fertilizers, stream bank restoration, public safety and flood protection. * Create an Advisory group, similar to the Lady Bird Lake Advisory group, for Lake Austin.

All Other Brainstormed Options for Public Education and Outreach

- Create a public education/information Plan that addresses the interest groups.
- Create a Lake Austin Team at the City of Austin to include Watershed Protection, Development Review, Public Information, Parks and Public Safety. The team should meet regularly to coordinate and discuss issues and implement best practices.
- Create an interagency working group that includes COA, LCRA, Parks and Wildlife.
- Create a Citizens' Advisory group of City staff and diverse stakeholders that informally discusses issues and provides advice.
- Form a Citizens' Advisory group and let them develop an Education/Outreach Plan and the City team.
- Make Public Education and Outreach a role that is given to the group with sole responsibility is management of the entire Lake Austin watershed.
- Have representation of the interest groups on a new Board.
- Have education and outreach within the Board that handles variances.
- Create a Lake Austin Team at the City of Austin to include Watershed Protection, Development Review, Public Information, Parks and Public Safety. Mandate that the team should meet quarterly to coordinate and discuss issues and implement best practices.
- Have the group with sole responsibility for managing the Lake watershed form a Citizens' Advisory Committee, as in D above.
- Have the Citizens' Advisory group report annually to Council on issues that they have discussed and that have come from stakeholders.
- Model the Citizens' group on the LCRA Lake Austin Advisory Panel.
- Have a corresponding Citizens' group to work with the staff or Department group.
- Add Lake Austin to the charge of the Lady Bird Lake Advisory group.
- Either add Lake Austin to the charge of the Lady Bird Lake Advisory group OR establish a similar body for Lake Austin.

Issue: Lake Austin Zoning

Work Group Report

Work Group: Everyone (Policies & Procedures category)

Issue: (DRC8) Up-zoning eliminates protections that are unique to Lake Austin.

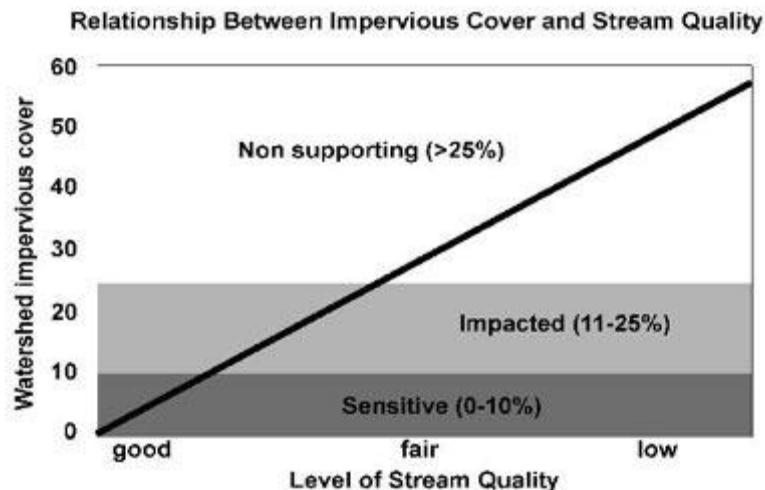
Problem Analysis:

Environmental protections for Lake Austin are specified in the LDC as a residential zoning district. The Lake Austin Residence District is defined as a geographical boundary that applies to all property within 1,000 feet of the shoreline. When a property within this boundary is rezoned to a different zoning district (such as SF-1, SF-2, SF-3, PUD, etc), the environmental protections for Lake Austin no longer apply and increased density is encouraged with smaller lot sizes and less open space.

	LA	RR	SF-1***	SF-2	SF-3
MINIMUM LOT SIZE (square feet):	43,560	43,560	10,000	5,750	5,750
MINIMUM LOT WIDTH:	100	100	60	50	50
MAXIMUM DWELLING UNITS PER LOT:	1	1	1	1	**
MAXIMUM HEIGHT:	35	35	35	35	35
MINIMUM SETBACKS:					
FRONT YARD:	40	40	25	25	25
STREET SIDE YARD:	25	25	15	15	15
INTERIOR SIDE YARD:	10	10	5	5	5
REAR YARD:	20	20	10	10	10
MAXIMUM BUILDING COVERAGE:	—	20%	35%	40%	40%
MAXIMUM IMPERVIOUS COVER:	*	25%	40%	45%	45%

Cause Analysis: Staff provided a map that illustrates how property within 1,000 feet of the Lake Austin shoreline is currently zoned.

- A substantial amount of property along Lake Austin has already been up-zoned to a different residential base district, and there are applications pending to up-zone additional property from the LA zoning district.
- The Board of Adjustment regularly receives requests for variances to exceed the amount of impervious cover and to allow construction on steep slopes for property adjacent to Lake Austin. Many of these requests for variances are to bring the development into compliance with the zoning regulations (i.e., requested after the fact to clear a compliance violation).
- There is scientific support that impervious cover and construction on steep slopes degrades water quality, as illustrated in the following graphic and addressed in the 1980 Lake Austin Watershed Ordinance and the 1986 Comprehensive Watershed Protection Ordinance.



Source: Schueler, T. 1994. The Importance of Imperviousness. In: Watershed Protection Techniques 1(3):100-111.

- The protections for Lady Bird Lake are specified in the LDC as an Overlay District. **The protections specified for the Overlay District apply regardless of how a property within the overlay boundary is zoned.** The most westerly point of the District is Tom Miller Dam.

§ 25-2-175 WATERFRONT OVERLAY (WO) DISTRICT PURPOSE AND BOUNDARIES.

(A) The purpose of the waterfront overlay (WO) district is to promote the harmonious interaction and transition between urban development and the park land and shoreline of Town Lake and the Colorado River.

(B) **The WO district applies to all property in its boundaries.**

(C) The boundaries of the WO district are identified in Appendix E of this chapter.

- Likewise, the sensitive Barton Springs area is protected by an Overlay District. The Barton Springs zone is defined as “BARTON SPRINGS ZONE means all watersheds that contribute recharge to Barton Springs, including those portions of the Barton, Williamson, Slaughter, Onion, Bear and Little Bear Creek watershed located in the Edwards Aquifer recharge or contributing zones.” **The regulations for the Barton Springs Overlay District apply regardless of how the underlying property is zoned.**

§ 25-2-178 BARTON SPRINGS ZONE OVERLAY DISTRICT PURPOSE AND BOUNDARIES.

(A) The purpose of the Barton Springs Zone (BSZ) overlay district is to preserve the natural beauty of the Hill Country, protect the image and character of the neighborhoods in the district, and reduce the negative effects of urbanization by restricting the scale and intensity of retail development.

(B) The BSZ overlay district applies to the portion of the Barton Springs Zone, as described in Section [25-8-2](#) (*Descriptions Of Regulated Areas*), that is within the city's zoning jurisdiction.

- Protections that are unique to Lake Austin are specified in the LDC as a Residential Base District.

§ 25-2-53 LAKE AUSTIN RESIDENCE (LA) DISTRICT DESIGNATION. Lake Austin residence (LA) district is the designation for a low density single-family residential use on a lot that is a minimum of one acre and that is located 1,000 feet or less, measured horizontally, from the 492.8 foot topographic contour line on either side of Lake Austin.

- The Lake Austin District Regulations contain the detailed regulations that are unique to property located within 1,000 feet of the shoreline.

§ 25-2-551 LAKE AUSTIN (LA) DISTRICT REGULATIONS.

(A) In this section:

(1) **SHORELINE** means the 492.8 topographic contour line along the shores of Lake Austin.

(2) **SHORELINE SETBACK** means a line parallel to the shoreline and at a distance from the shoreline that is prescribed in this section.

(3) **SHORELINE SETBACK AREA** means an area between the shoreline and the shoreline setback.

(B) This subsection applies in a Lake Austin (LA) district.

(1) A shoreline setback area is excluded from impervious cover calculations.

(2) A **permanent improvement is prohibited in a shoreline setback area**, except for a retaining wall, pier, wharf, boat-house, or marina, or a driveway to the structures.

(3) **Not more than 30 percent of the woody vegetation within a shoreline setback area may be removed.**

(4) Except for surveying or testing, **vegetation within a shoreline setback area may not be removed before a building permit is issued.** For surveying or testing, areas up to 15 feet wide may be cleared, and trees smaller than six inches in diameter may be removed.

(5) **Development is prohibited on land with a gradient that exceeds 35 percent.** This prohibition does not apply to a fence, driveway, road or utility that cannot be reasonably placed elsewhere, or a pedestrian facility.

(6) **A sewage holding tank that is at least partially below ground level, or an effluent disposal site, must be at least 100 feet horizontally from the shoreline. A sewage facility drain field that uses soil as a filter medium may not be located on land with a gradient of more than 15 percent.**

(C) **Except for a lot included in a subdivision plat recorded before April 22, 1982 or a tract that is not required to be platted, this subsection applies in an LA district.**

- (1) **The shoreline setback is 75 feet.**
- (2) A lot that fronts on a cul-de-sac must have:
 - (a) a chord width of not less than 33 feet at the front lot line;
 - (b) a width of not less than 60 feet at the front yard setback line; and
 - (c) **a width of not less than 100 feet at all points 100 feet or more behind the front lot line.**
- (3) **Impervious cover may not exceed:**
 - (a) **20 percent, on a slope with a gradient of 25 percent or less;**
 - (b) **10 percent, on a slope with a gradient of more than 25 percent and not more than 35 percent; or**
 - (c) **if impervious cover is transferred under Subsection (E), 30 percent.**

(D) This subsection applies to a lot included in a subdivision plat recorded before April 22, 1982 or a tract that is not required to be platted, and that is located in an LA district.

- (1) The shoreline setback is:
 - (a) 75 feet; or
 - (b) if the front line of the lot or tract is 200 feet or less from the shoreline, 25 feet.
- (2) The lot or tract must comply with the front yard, street side yard, interior side yard, and rear yard setback requirements applicable in an SF-2 district.
- (3) Impervious cover may not exceed:
 - (a) 35 percent, on a slope with a gradient of 15 percent or less;
 - (b) 10 percent, on a slope with a gradient of more than of 15 percent and not more than 25 percent;
 - (c) 5 percent, on a slope with a gradient of more than 25 percent and not more than 35 percent; or
 - (d) if impervious cover is transferred under Subsection (E), 40 percent.
- (E) In an LA district, a person may transfer impervious cover in accordance with this subsection.
 - (1) Impervious cover may be transferred only:
 - (a) between tracts within an LA district; and
 - (b) from land with a gradient of 35 percent or less, to land with a gradient of 15 percent or less.

(2) **Land from which impervious cover is transferred may not be developed. The land must either remain undisturbed or be restored to a natural state.**

(3) A transfer of impervious cover must be described in a restrictive covenant that runs with the land, is approved by the city attorney, and is recorded in the county deed records.

Remedy Analysis: Describe what the Work Group recommends to address the issue.

- Create a Lake Austin Overlay District that applies to all property within 1,000 feet of the shoreline, regardless of how the property is zoned. The Lake Austin Overlay District regulations would include the detailed regulations currently specified in 25-2-551.
- Re-educate the staff of all City departments and entities (such as Austin Water Utility) about the Lake Austin Overlay District regulations, and how the regulations help protect the quality of our drinking water supply.
- Prohibit requests for up-zoning LA property until the Overlay District is created and staff is re-educated on how it applies to requests for zoning and applications for development.

Interests Considered for LA Zoning Issues

Interests (Unmet Needs)	Options That Achieved Consensus
<ul style="list-style-type: none"> • Preserving certain environmental protections for the Lake Austin area (such as setback from shoreline, limits on removal of vegetation and impervious cover limits) that currently exist within the LA Residence District) regardless of zoning changes. • Preserving the rights of residents whose property has been grandfathered. • Not just encouraging very large, very expensive residences. • Protecting the environment of the entire watershed, not just the area within 1,000 feet of the shoreline. • Not letting the perfect be the enemy of the good enough. • Protecting the existing high quality of the water in Lake Austin. 	<p>✱ The ability of homeowners to exempt themselves from some of the environmental restrictions of Lake Austin zoning through the present upzoning process has the potential for both environmental harm and inequitable treatment of neighbors. The City should address this issue.</p>

All Other Brainstormed Options for LA Zoning Issues

- Create a Lake Austin Overlay District that applies to all property within 1,000 feet of the shoreline, regardless of how the property is rezoned. The Lake Austin Overlay District regulations would include the detailed regulations currently specified in 25-2-551.

- Re-educate the staff of all City departments and entities (such as Austin Water Utility) about the Lake Austin Overlay District regulations, and how the regulations help protect the quality of our drinking water supply.
- Prohibit requests for up-zoning LAT property until the Overlay District is created and staff is re-educated on how it applies to requests for zoning and applications for development.
- Limit the size of houses in relation to the lot size.
- Prohibit up-zoning in the Lake Austin Residence District.
- Increase enforcement of the Land Development Code in the Lake Austin area.
- Create an Overlay District and have the City reconsider what LA zoning means, i.e. what makes for reasonable restrictions given the current state of the environment and technology?
- Re-evaluate the Lake Austin District zoning requirements using the current regulations as a starting place. Ask if these standards are still appropriate given changes in technology, land use, the environment and other concerns. Determine what is appropriate and go through the normal public process for any changes, including review by the Environmental Board and the Planning Commission.
- Do the Lake Austin Overlay with a 1,000 foot setback.
- Maintain a 75 foot setback and the Lake Austin Residence District vegetation requirements if you upzone.
- Create a Lake Austin Overlay District and maintain grandfathering for lots permitted before 1982.
- Create a Lake Austin Overlay District that only applies to residential rezoning, not commercial.
- The ability of homeowners to exempt themselves from some of the environmental restrictions of Lake Austin zoning through the present upzoning process has the potential for both environmental harm and inequitable treatment of neighbors. The City should address this issue and exclude lots of less than one acre.

LDC Section	Scope	Staff Responsible	Variance Process	Enforcement
Chapter 6-5, Articles 2 and 3	Pollution of Water Supply, Watercraft, and Marinas (marine toilets, holding tanks, disposal, excursion boats, toilets/waste at marinas, parks, picnic areas)	Administrator (the director or the health authority)	Admin approval for experimental substance, material, or equipment.	NONE (Administrator specified) Class C misdemeanor
Chapter 8-1	Concessions in Town Lake Park (no other lakes addressed)	PARD Director and Council	Approval subject to restrictions specified for different areas of Lady Bird Lake	PARD (NONE for Lake Austin concessions)
Chapter 8-5	Waterway Access and Use (navigation control zones, recreational uses for various water bodies, structural and exhaust requirements for watercraft, houseboats, lake use by watercraft on Lake Austin, LBL, and Lake Long	Designated Official (Park Police, City police, WPD or PDRD staff, or health authority). Fire Chief for recreational ban during flooding threats. City Mgr for buoy placements.	NONE for requesting or defining navigation control zones.	Building Official conducts public hearing for certain violations (structural & exhaust requirements). Director may remove or impound a watercraft. PARD/APD for use violations. Misdemeanor
Chapter 9-2	Noise & Amplified Sound	Accountable Official (City officer or employee designated by the CM)	none	APD Class C misdemeanor
Chapter 25-2	Zoning	PDRD	Zoning and rezoning requests go to ZAP, then CC. Requests for same or less restrictive zoning limited to 1 per year.	Code Compliance

LDC Section	Scope	Staff Responsible	Variance Process	Enforcement
Chapter 25-2-471, Subchapter C (except for 25-2-551 below)	Use and Development (variances from requirements of chapter, including height, setbacks on land, building coverage, impervious cover, removal of vegetation within shoreline setback area, construction on steep slopes)	PDRD	Board of Adjustment for variances and appeals of Building Official decisions	Code Compliance, EV Inspections
25-2-551, (A)(6)	Sewage Holding Tanks and Sewage Drain Fields	AWU	AWU Admin	AWU, Code Compliance?
25-2-891	Accessory Uses	PDRD, PARD		Code Compliance
25-2-961	Noncomplying Structures	PDRD, PARD		Code Compliance
Article 13 (25-2-1171 thru 1179), except for 25-2-1176 below	Docks, Bulkheads, and Shoreline Access (applies to LA, LDL, and Lake Long), including license agreements for businesses or living quarters extending into or above the lakes	Building Official, PDRD Director, PARD Director, WPD	PDRD Director approval of SP that clusters docks within a subdivision is subject to PARB approval. PARB recommends to PARD Director for docks >30ft. PARB recommends to Council for license agreements. PARB has sovereign decision on inundated side yard setback and using >20% of shoreline width.	Code Compliance, EV Inspections
25-2-1176, (G)	Subsection applicable to marinas and common areas	PDRD, AWU	AWU Administrative	AWU?

LDC Section	Scope	Staff Responsible	Variance Process	Enforcement
Chapter 25-5-3	Small Projects (docks with no shoreline mod or dredging, retaining walls less than 100ft in length)	PDRD, PARD, WPD	None?	EV Inspections , Code Compliance
Chapter 25-7-63	Drainage Review by PARB of Certain Site Plans (shoreline mod of 3 lakes, dredging)	PDRD, PARD, WPD	PARB comment	EV Inspections
Chapter 25-8-281 (see LATF Ordinance)	Environment: CEFs (buffers and preservation of natural character of CEFs)	WPD, PDRD	LATF recommends ZAP review 25-8 variances	EV Inspections
Chapter 25-8-282	Environment: Wetland Protections	WPD, PDRD, PARD	WPD Director may approve removal and replacement or eliminate setbacks if for WQC	EV Inspections
25-8, Division 3 (25-8-301 thru 304)	Environment: Construction on Slopes for Lake Austin watershed and within CWQZ	WPD, PDRD	ZAP may grant variance if meets requirements	EV Inspections
25-8, Division 4 (25-8-651 and 652)	Shoreline Relocation; Lake Fill	WPD, PDRD, PARD	PARB approval required for all 3 lakes. Council approval with more detail required for Lady Bird Lake.	EV Inspections
Chapter 25-2, Subchapter C, Article 3	Waterfront Overlay District Requirements for Town Lake Park (FOR COMPARISON)	PDRD, PARD?	If WPAB approves→LUC. If WPAB denies, can appeal to Council. Can appeal LUC decision to Council.	Code Compliance?

Issue: Coordination

Work Group Report

(PPC3) Authority over different aspects of managing the lake is not well understood by staff or management (and, consequently, the public).

(PPC6) There is inadequate legal guidance for staff and decision-makers in regard to navigation stream law, state water codes, and local authority.

(PPC8) There is little to no coordination among City departments in setting policies that affect Lake Austin; in planning, reviewing, or inspection of development in and along the lake, or in managing recreational and commercial use of the public lake and lands.

(PPC10) Evaluate and clarify the role of Parks Board, Environmental Board, Zoning and Platting Commission, and Board of Adjustments in the development review process and variance requests.

Problem Analysis:

- See summary of LDC regulations, oversight, and variance procedures.

Remedy Analysis: Describe recommendations to address the issue.

- City Law needs to identify or cultivate one or more resources who have appropriate knowledge and experience in navigation stream law and Federal and state water codes to advise staff and the Boards/Commissions and City Council on policies and decisions related to managing the lake.
- Establish a Lake Management Division with a cross-functional team led by a director with lake management experience to provide comprehensive oversight of all the policies and procedures that affect the Lake Austin watershed. This division would include planning, regulation and oversight of facilities and commercial uses along and within the lake, development within the watershed boundary, and managing recreational use.
- Consider consolidating the functions of the BofA and the ZAP to have one Board/Commission that uses appropriate Findings of Facts for considering variances to all regulations that affect the Lake Austin watershed. In the interim:
 - All requests for variances from LDC 25-2 Use and Development and Article 13 Docks, Bulkheads, and Shoreline Access should be determined by the Board of Adjustment (currently some requests go to the PARB).
 - All requests for zoning or rezoning within the Lake Austin Watershed are reviewed by the Zoning and Platting Commission, which makes a recommendation to the City Council. (as currently done)

- All requests for variances from the environmental regulations, including CEF protections, shoreline relocation, drainage, lake fill, and construction on slopes are reviewed by the Environmental Board, which makes a recommendation to the Zoning and Platting Commission. Decisions of the ZAP may be appealed to the City Council. (currently some requests go to the PARB and some to the BofA)

Interests Considered and Consensus Options for Coordination Issues

Interests (Unmet Needs)	Options That Achieved Consensus
<ul style="list-style-type: none"> • Protect public safety. • Clarity of processes, rules, roles and responsibilities • Efficiency and effectiveness • Active management of Lake Austin as a resource • Protecting the environment and drinking water supply • Providing adequate legal guidance • Not overburdening the public with regulations • Preserving the rights that people currently have on their property. 	<ul style="list-style-type: none"> ✱ City Law needs to identify or cultivate one or more resource people who have appropriate knowledge and experience in navigation stream law and Federal and State water codes to advise staff and the Boards/Commissions and City Council on policies and decisions related to managing the Lake. ✱ Establish a Lake Management Division with a cross-functional team led by a Director with lake management experience to provide comprehensive oversight of all the policies and procedures that affect the Lake Austin watershed. This Division would include planning, regulation and oversight of facilities and commercial uses along and within the lake, development within the watershed boundary, and managing recreational use. ✱ Consider consolidating the functions of the Board of Adjustment and the Zoning and Platting Commission to have one Board/Commission that uses appropriate Findings of Fact for considering variances to all regulations that affect the Lake Austin watershed. In the interim: <ul style="list-style-type: none"> - All requests for variances from LDC 25-2 Use and Development and Article 13 Docks, Bulkheads, and Shoreline Access should be determined by the Board of Adjustment (currently some requests go to the Parks and Recreation Board.) - All requests for zoning or rezoning within the Lake Austin Watershed are reviewed by the Zoning and Platting Commission, which makes a recommendation to the City Council (as currently done.) - All requests for variances from the environmental regulations, including CEF protections, shoreline relocation, drainage, lake fill and construction on slopes are reviewed by the Environmental Board, which makes a recommendation to the Zoning and Platting Commission. Decisions of the ZAP may be appealed to the City Council (currently some requests go to PARB

	<p>and some to the BoA.)</p> <ul style="list-style-type: none">* Have an educational component to this process.* Create a financial plan with revenue resources to support a new Lake Use Management Department. Potential resources should include but are not limited to: public/private contracts from concessions, boat ramp launching/parking fees, and gas proceeds.
--	---

Issue: Boat Lift Remodeling

Interests Considered and Consensus Options for Boat Lift Remodeling

Interests (Unmet Needs)	Options That Achieved Consensus
<ul style="list-style-type: none"> • Not requiring a site plan for something as standard as a boat lift. • Concerns about safety and flood safety as a result of putting something on the lake bottom. • Because they may not be very visible, concern that they are used to add “stealth” boat slips. 	<ul style="list-style-type: none"> ✱ Treat stand-alone boat lifts like a boat dock.

Issue: Marine Toilet Regulations

Work Group Report

Work Group: Everyone (Processes, Policies & Coordination category)

Issue: (PPC5) There is no inspection of marine toilets as required under current code

Issue Detail:

The Austin Land Development Code includes the following requirements for watercraft outfitted with marine toilets:

- Watercraft cannot have a marine toilet that is capable of discharging sewage into the water (6-5-31)
- Holding tanks must be designed to prevent the removal of sewage other than by pumping to an on-shore disposal facility (6-5-32)
- Excursion boats that carry more than 20 passengers must provide separate marine toilets for men and women. (6-5-34)
- The health authority shall annually inspect a resident pleasure boat, transient pleasure boat, excursion boat, houseboat, picnic area, or marina and issue a permit indicating compliance. (6-5-36)

Problem Analysis:

- There is no one within the City who is inspecting marine toilets to ensure they are not capable of discharging sewage into the water. Verified with Austin-Travis County Health Department, Austin Water Utility, Watershed Protection Department, Planning Development & Review, Parks & Recreation Department, APD (Lake Patrol).

- Dozens of excursion boats with marine toilets operate on Lake Austin and Lady Bird Lake.
- There is one marine waste pump station on Lake Austin (located at Walsh boat ramp) and no marine waste pump station on Lady Bird Lake. The Walsh pump station provide 10 minutes of electricity for two quarters. Approximately 30,660 gallons of wastewater was pumped at the Walsh station during a six-month period in 2011.
- 1 gallon of sewage from a boat has as much bacteria as 10,000 gallons of treated municipal wastewater (<http://www.maritimesanitation.com/law.html>).
- The Federal Clean Water Act is implemented by the Texas Commission on Environmental Quality (TCEQ) which requires that watercraft with Marine Sanitation Device (MSD) be certified. Certification is indicated with a decal on the stern of the boat, but there is no inspection of the MSD or watercraft. Only 3 houseboats on Lake Austin have filed an application to certify a MSD. (Frank Espino and Cassandra Derrick, TCEQ). The Texas Parks and Wildlife Dept enforces the Texas Clean Water Act on Lake Texoma and is inspecting boats for compliance (<http://www.maritimesanitation.com/law.html>).
- The 1992 Clean Vessel Act established a federal grant program to help reduce pollution from vessel sewage discharges. It provides for installation, renovation, operation, and maintenance of pumpout and dump stations, reimbursing up to 75% of the approved project costs. The TPWD administers the Texas apportionment of the federal funds.
- The TPWD administers the Texas Party Boat Operator Licensing Program per the Texas Administrative Code (Chapter 55, Subchapter H) and Parks and Wildlife Code (Ch 31, Subchapter G). This program addresses training and safety requirements but the application and inspections include nothing about MSDs or health concerns.

Remedy Analysis: Describe recommendations to address the issue.

- Direct the City Manager to immediately identify and have the health authority referenced by LDC 6-5-26 inspect all watercraft that have marine toilets to ensure that waste cannot be directly discharged into the water (i.e., any “Y” valves are secured in the closed position by padlock, non-resealable ties, removal of handle, or other physical barrier).
- Require commercial watercraft operators to provide proof of compliance with the Texas Party Boat Operator Licensing Program and the TCEQ MSD Certification program prior to issuing or renewing a license to operate on Lake Austin.
- Direct the City Manager to apply for a TPWD Boating Access and Boat Sewage Pumpout Grant of up to \$500,000 by the application deadline of October 31, 2013

(<http://www.tpwd.state.tx.us/business/grants/trpa/>) for the purpose of providing additional and improved boat ramp and boat sewage pumpout stations for watercraft operating on Lake Austin.

- Request the Water and Wastewater Commission to follow-up on this issue and help ensure that watercraft with marine toilets operating within the city jurisdiction are inspected by the City and that adequate sewage pumpout stations are provided on both Lake Austin and Lady Bird Lake.

Interests Considered and Consensus Options for Marine Toilet Regulations

Interests (Unmet Needs)	Options That Achieved Consensus
<ul style="list-style-type: none"> • Protect the high quality of the water. • Protect public safety for those who use the lake. • Obtain funding for the implementation of any recommendation. • Have an enforceable recommendation. • Not contradict federal or state laws that are already on the books. • Strengthen enforcement of existing laws. 	<ul style="list-style-type: none"> * Direct the City Manager to immediately identify and have the health authority referenced by LDC 6-5-26 inspect all watercraft that have marine toilets to ensure that waste cannot be directly discharged into the water (i.e. any “Y” valve are secured in the closed position by padlock, non-resealable ties, removal of handle or other physical barrier). Have the City Manager clearly identify how to report violations and to whom. * Require commercial watercraft operators to provide proof of compliance with the Texas Party Boat Operator Licensing Program and the TCEQ MSD Certification program prior to issuing or renewing a license to operate on Lake Austin. Direct the City Manager to apply for a TPWD Boating Access and Boat Sewage Pump-out Grant of up to \$500,000 by the application deadline of October 31, 2013 (http://www.tpdw.state.tx.us/business/grants/trpa/) for the purpose of providing additional and improved boat ramp and boat sewage pump-out stations for watercraft operating on Lake Austin. * Request the Water and Wastewater Commission follow-up on this issue and help ensure that watercraft with marine toilets operating within the city jurisdiction are inspected by the City and that adequate sewage pump-out stations are provided on both Lake Austin and Lady Bird Lake. * Update and improve the pump-out station at Walsh. * Consider creating a second pump-out station on Lake Austin.

	* Tie the pump-out station to the RV pump-out at Emma Long Park.
--	--

Issue: Wildfire

Interests Considered and Consensus Options for Wildfire

Interests (Unmet Needs)	Options That Achieved Consensus
<ul style="list-style-type: none"> • Public safety • Protection of people, property • Need for public education around this topic • Not overstepping the role of the new Joint Wildfire Task Force. • Not burdening the City with requirements for which they receive no resources. 	<ul style="list-style-type: none"> * This Task Force supports the efforts of the Joint Wildfire Task Force.

All Other Brainstormed Options for Wildfire Issues

- A. Complacency and indifference by citizens and public officials to the coming wildfire will increase the number of deaths and amount of property destroyed by the wildfire. The City, Travis County, ESD's, Water districts, school districts and neighborhood groups must work together to plan for our wildfire and make sure the needed personnel and resources are in place before the wildfire event occurs.
- B. Successfully preparing for a wildfire requires citizens to take personal responsibility for protecting themselves, their family and their property. Homeowners should prepare their homes and property using the Firewise program to reduce the fire hazards in their neighborhood. Every family should have an evacuation and wildfire action plan to ensure your family doesn't panic when the wildfire consumes your neighborhood.
- C. The City of Austin should ensure there are fire hydrants on all of the streets along Lake Austin. The City should guarantee the water system infrastructure in the Wildland – Urban Interface is capable of providing the 'fire flow' needed to fight multiple major wildfires at the same time.

Issue: On-site Sewage Facilities (OSSF)

Interests Considered and Consensus Options for OSSF

Interests (Unmet Needs)	Options That Achieved Consensus
<ul style="list-style-type: none"> • Protect water quality. • Protect public health and safety and the environment. • Implementable recommendation. • Not unduly burdening those with septic systems. 	<p>★ This Task Force supports the Austin Water Utility's current efforts to update the City of Austin on-site sewage facilities (OSSF) standards to provide a greater level of protection for the environment and public health and safety.</p>

All Other Brainstormed Options for OSSF Issues

- A. City Council should direct the Austin Water Utility to bring forth recommendations for more advanced regulation of on-site septic facilities, no later than September 1, 2013. Due to the similar geological characteristics for OSSF within the Austin regulatory area, the regulations adopted by the Village of West Lake Hills, the City of Rollingwood, and the Village of Bee Cave should be reviewed and considered in developing advanced standards for Austin.
- B. If the Austin Water Utility does not improve its OSSF permitting database and recommend advanced standards by September 1, 2013, the City Council should consider transferring the TCEQ authority for regulating OSSF to the Austin/Travis Health and Human Services Department or another appropriate city department.
- C. The Water and Wastewater Commission should follow-up on the status of the problems detailed in [report provided by Mary Ann Neely] and on the AWU developing advanced OSSF standards and improving the completeness and inter-departmental and public access to its permitting database.
- D. The Water and Wastewater Commission and Environmental Board will follow-up on the status of the problems detailed in [report provided by Mary Ann Neely] and on the AWU developing advanced OSSF standards and improving the completeness and inter-departmental and public access to its permitting database.
- E. If the Austin Water Utility does not improve its OSSF permitting database and recommend advanced standards by September 1, 2015, the City Council should consider transferring the TCEQ authority for regulating OSSF to the Austin/Travis Health and Human Services Department or another appropriate city department.
- F. This Task Force recommends that the Austin Water Utility to bring forth recommendations for more advanced regulation of on-site septic facilities, no later than September 1, 2013. Due to the similar geological characteristics for OSSF within the Austin regulatory area, the regulations adopted by the Village of West Lake Hills, the City of Rollingwood, and the Village of Bee Cave should be reviewed and considered in developing advanced standards for Austin.
- G. Add language that current systems should fall under this only if they fail.

Work Group Report

Issue: (PPC5(a)) Austin's OSSF regulations are the weakest of any septic permitting authority in Travis County

Issue Detail:

On-site sewage facilities (OSSF), including conventional septic tank absorption field systems, can impact water quality if improperly constructed, maintained or placed without consideration of surface and ground water impacts.

Problem Analysis:

- The TCEQ authorized Austin to regulate on-site sewage facilities via Austin Ordinance No. 990211-E on February 26, 1999, which adopts the state standards for onsite sewage facilities. The accompanying Resolution No. 990211-37 states that “the City recognizes that current state standards for onsite wastewater facilities are a bare minimum, and that the City’s public health and welfare would be better served by a more stringent set of standards; and the City intends to submit more stringent standards for such facilities to the TNRCC within 120 days.”
- The only amendment to the onsite wastewater regulations or TCEQ filings since Austin was authorized in 1999 to regulate onsite sewage facilities has been to change the enforcement from the Austin Health Department to the Water and Wastewater Department, effected by Ordinance No. 011011-14 on October 22, 2001.
- Austin’s area of jurisdiction for regulating onsite septic facilities applies to property within the Full Purpose and Limited Purpose boundaries of the City.
- The Texas Health and Safety Code, Chapter 336, authorizes local government to regulate the use of onsite sewage disposal facilities in its jurisdiction in order to abate or prevent pollution or injury to public health. All other entities that are authorized to regulate onsite sewage facilities within Travis County have adopted more stringent standards for regulation of onsite sewage facilities within their jurisdictions:
 - Village of Bee Cave, updated February 2, 1994
 - City of Mustang Ridge, updated December 19, 2007
 - City of Rollingwood, updated September 22, 2009
 - City of West Lake Hills, updated November 18, 2010
 - County of Travis, updated July 28, 2000
- The number of housing units in Austin utilizing onsite septic increased significantly from 1970 to 1990 (927 to 6905, and likely underestimated), primarily in the Lake Austin Watershed. The Watershed Protection Department reviewed OSSF permit data from the Austin Health Department 1979 to 2001, but Austin Water Utility could provide only minimal information (address) for permits it has issued since 2001. The incomplete

permitting database is illustrated with the Granada Hills Subdivision, with only 7 permitted OSSF according to City of Austin, 234 OSSF housing units according to US census information, and 355 single-family housing parcels according to TCAD.²

- “Lake Austin, with high concentrations of OSSF along the shorelines, maintains statistically significant high concentrations of photosynthetic plankton counts than Town Lake based on data collected from the City of Austin drinking water treatment plants located on both. Increased nutrient input from shoreline or near shore OSSF may sustain the higher Lake Austin algal levels.” “The City of Austin Health Department suspended annual inspections of the OSSF along Lake Austin in 1999. The City of Austin no longer routinely inspects OSSF after installation and final permit approval (James Grubbs, personal communication with Chris Harrington, 19 April 2005).”²
- At least two large onsite sewage facilities along Lake Austin are failing. The onsite sewage facilities and drainfield in Emma Long Metropolitan Park were installed around 1940 and the Parks & Recreation Department must have the septic holding tank pumped out daily due to drainfield saturation during seasons of high park use. The Oak Shores WWTP has a history of discharging untreated waste, not maintaining the treated wastewater drip irrigation field, and exceeding permitted effluent amounts (see TCEQ Docket No. 2011-0027-MWD on Dec 7, 2011; investigation 1015021 on 6/22/2012 and 7/13/2012). The Oak Shores WWTP and drip irrigation drainfield discharges into Conner Creek, which is a tributary to Lake Austin. (below photos of **drip** irrigation field for Oak Shores WWTP).



- 1 gallon of untreated sewage has as much bacteria as 10,000 gallons of treated municipal wastewater.³
- During testimony of an appeal of an OSSF permit on 1 August 2011, Syed Muir of the Austin Water Utility told the City Council that a review of the city program is required and

² City of Austin report SR-05-04, “Potential Effects of On-Site Sewage Treatment Facilities on Surface and Ground Water Quality in Travis County, Texas.”, Chris Herrington, Environmental Resource Management Division, City of Austin Watershed Protection Department.

³ <http://www.maritimesanitation.com/law.html>

the AWU is drafting some recommended changes, including requiring an annual inspection of all onsite sewage facilities. Council Members suggested that AWU consider additional ways to provide collective public sewage facilities, such as adding packaging stations and extending lines from West Lake Hills.⁴ On January 15, 2013 Bart Jennings of AWU responded to the LATF that staff has a draft revision to Ch15-5 related to private OSSFs that is being reviewed internally by City Staff.⁵

Remedy Analysis: Describe recommendations to address the issue.

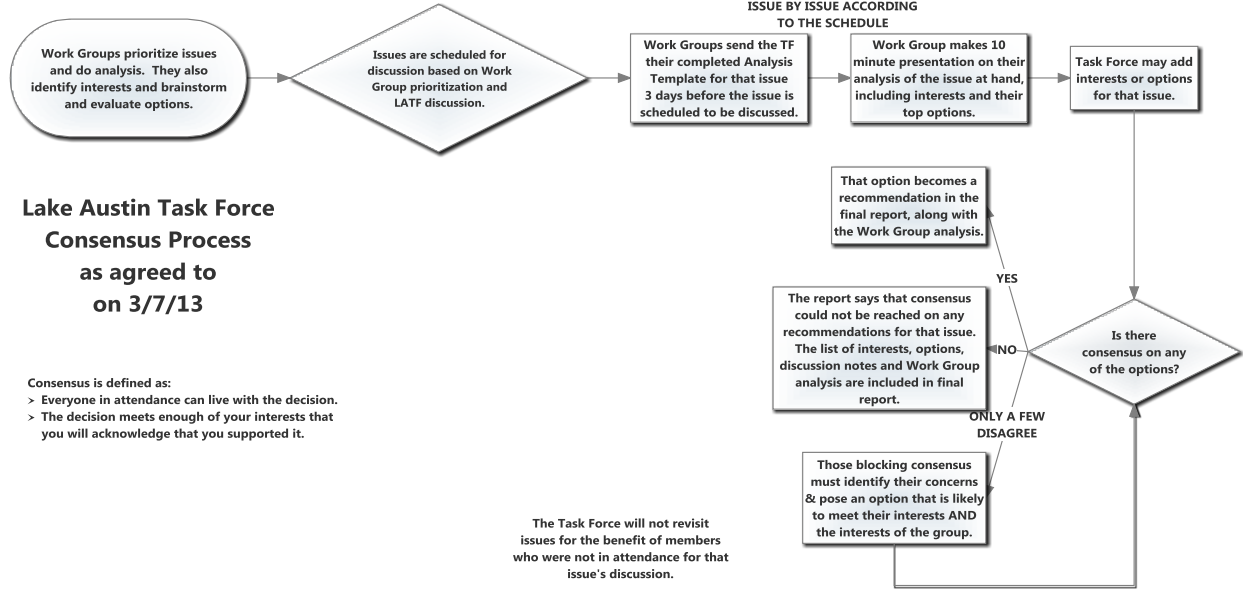
- Adopted as WQ5 consensus item under Water Quality & Monitoring issue:
“As a policy recommendation, the City should upgrade its standards for on-site septic facilities.”
- City Council should direct the Austin Water Utility to bring forth recommendations for more advanced regulation of on-site septic facilities no later than 1 September 2013. Due to the similar geological characteristics for OSSF within the Austin regulatory area, the regulations adopted by the Village of West Lake Hills, the City of Rollingwood, and the Village of Bee Cave should be reviewed and considered in developing advanced standards for Austin.
- If the Austin Water Utility does not improve its OSSF permitting database and recommend advanced OSSF standards by 1 September, 2013, the City Council should consider transferring the TCEQ authority for regulating OSSF to the Austin/Travis Health and Human Services Department or another appropriate city department.
- The Water and Wastewater Commission should follow-up on the status of the problems detailed above, and on the AWU developing advanced OSSF standards and improving the completeness and inter-departmental and public access to its permitting database.

⁴ City Council Meeting Transcript, 1 August 2011.

⁵ LATF Information Requests Tracking, updated February 13, 2013.

Appendices

Appendix A: Flow Chart of Consensus Process



Lake Austin Task Force Consensus Process as agreed to on 3/7/13

Consensus is defined as:

- > Everyone in attendance can live with the decision.
- > The decision meets enough of your interests that you will acknowledge that you supported it.

Appendix B: Work Group Process Steps

Lake Austin Task Force Work Group Process

Welcome to your Work Groups! Here are some guidelines for you to ensure your work proceeds smoothly.

- 1) **Identify Priority Issues.** The workgroup should discuss how to organize their issues, with input from each work group member. Work groups should also review their lists of issues to ensure that each one qualifies as an issue for the group to consider (i.e., does it fit the scope of the work group, is it an issue rather than a recommendation, etc.)
- 2) **Identify Information Needs.** City of Austin staff can provide some additional background information on an as-needed basis to help you inform your discussions. Once you've identified the issues your group will consider, be sure that your work group has the information it needs to deliberate on those issues. Make sure that the group agrees on the authenticity of the information—that it comes from reliable sources that the entire group trusts.
- 3) **Begin Discussion of Issues and Clarify Issues, As Needed.** As you begin discussing issues as a work group and review the information available on each, you may need to refine what exactly the issue is for the Task Force to investigate. This is an important step that will help streamline the Task Force's review of the work group's discussions.
- 4) **Brainstorm a List of Recommendations and/or Solutions for the Work Group's Issues.** Work group members should each have the opportunity to present solutions or recommendations for the work group to consider on each issue. This can be done via email or during work group meetings; the important thing is for each member to feel they have the opportunity to present their ideas.
- 5) **Discuss Potential Recommendations for Task Force To Consider.** The work group can offer a set of proposed recommendations to the Task Force or multiple options within a given recommendation from which the Task Force can choose as its official recommendation. As the work group reviews proposed recommendations, those that the work group chooses to put forward to the full Task Force as proposals should have the support of all work group members to the greatest extent possible. Work groups do not need to take formal votes on their proposals, but they should strive to achieve consensus within their work group on a proposed recommendation for the Task Force.

Appendix C: Work Group Report Template

Issue: Description of issue, as it is listed in the Issues list for each Work Group.

Problem Analysis: Describe how the problem was analyzed.

Cause Analysis: Describe the information that was reviewed to determine the cause of the issue.

Remedy Analysis: Describe what the Work Group recommends to address the issue.

Appendix D: Issue Analysis Template

Issue Worksheet DRAFT 2012.10.09

PROBLEM ANALYSIS

Question	Evaluation					Subcommittee tasks
Is the overall problem within the city's ability to fix?	no	no/maybe	maybe	yes/maybe	yes	If consensus is clearly no, then drop problem.
The evidence of the problem (seen by the committee) is...	nonexistent	committee's perception	stakeholder testimony	expert testimony	data	List evidence
Does the committee need more evidence?	no	no/maybe	maybe	yes/maybe	yes	Reach consensus
If more evidence is needed, it should be obtained by:	not applicable	public hearings	stakeholder surveys	outside experts	city staff	Decide plan
Relative to other problems, this problem is...	least important	less important	about average	very important	most important	Put forward to full committee for ranking
This problem affects (circle all that apply)	landowners	water quality	businesses	boaters	other lake users	

CAUSE ANALYSIS

Question	Evaluation					Subcommittee tasks
The evidence on the problem's causes are	nonexistent	committee's perception	stakeholder testimony	expert testimony	data	List evidence
Does the committee need more evidence of the causes?	no	no/maybe	maybe	yes/maybe	yes	Reach consensus
If more evidence is needed, it should be obtained by:	not applicable	public hearings	stakeholder surveys	outside experts	city staff	Decide plan
Are the causes within the city's ability to fix?	no	no/maybe	maybe	yes/maybe	yes	If consensus is clearly no, then drop problem.
The causes can be attributed to (circle all that apply)	landowners	government agencies	businesses	boaters	other lake users	
The causes are associated with ...	insufficient enforcement of regulations		insufficient regulations		lack of any regulations	

REMEDY ANALYSIS

Question	Evaluation					Subcommittee tasks
Are there proposed remedies?	no	no/maybe	maybe	yes/maybe	yes	List remedies
Are the relative costs of different remedies known?	no	no/maybe	maybe	yes/maybe	yes	List costs
Does the committee need more evidence on impact or costs of proposed remedies?	no	no/maybe	maybe	yes/maybe	yes	Reach consensus
If more evidence is needed, it should be obtained by:	not applicable	public hearings	stakeholder surveys	outside experts	city staff	Decide plan
Proposed remedies are	Funding for enforcement	Policy changes and coordination	revising regulations	writing new regulations	other	
Remedies will affect	landowners	government budgets	businesses	boaters	other lake users	
Are the remedies within the city's ability?	no	no/maybe	maybe	yes/maybe	yes	If consensus is clearly no, then drop remedy.

Appendix E: Work Group Report: Enclosing Boat Docks and Extraneous Appurtenances

Problem Analysis:

Current code prohibits the construction of a “living quarter” on a pier or similar structure extending into or above Lake Austin (except under a license agreement approved by the council) as per 25-2-1176(H), however, Staff is burdened with the interpretation of what constitutes a “living quarter”. The limit of what constitutes a living quarter is not so clear. The root of the issue begins with proposals to enclose one or more portions of the dock, which becomes problematic for several reasons, including, but not limited to: hazardous conditions related to the normal operation of gas powered boats, obstructing flow of floodwaters, and inability to inspect activities/hazards over public waters etc. Additionally, the simple act of enclosing other parts of the dock may then lead to conversion to living space with plumbing such as toilets, sinks, showers etc.

A related, but separate code section describes the restrictions of development within the Critical Water Quality Zones (CWQZ) in all of Austin’s water bodies. Current code allows boat docks and “necessary access and appurtenances” for boat docks within the CWQZ as per 25-8-261(C)(1), however, Staff is burdened with interpretation of what appurtenances are “necessary”. Although traditional dock appurtenances (such as a roof, storage closet, lift mechanism etc.) have historically been approved as necessary to the function of a boat dock, there has been an increase of “appurtenances” that exceed the qualifier of “necessary” (such as including enclosed rooms, plumbing, a third story, large storage facilities, kitchenettes, etc).

Cause Analysis: Describe the information that was reviewed to determine the cause of the issue.

LDC, ECM, Application Packet 19

§ 25-8-261(C) CRITICAL WATER QUALITY ZONE DEVELOPMENT

§ 25-2-1176(H) REGULATIONS

Remedy Analysis:

Better define “living quarters” and/or establish limitations for enclosed areas.

Better define “necessary appurtenance”

Better define what can be included for storage. (other cities ordinance sample for storage:

A contained storage area is allowed only within the first floor (lower deck) of a Boathouse and only for the purpose of storing items such as tackle and life jackets. Products considered hazardous material or any material which has a warning label prohibiting its use or storage near water and/or public water supplies may not be stored in these areas. The maximum storage area allowed shall be as follows:

<i>Structure Area</i>	<i>Storage Area</i>
<i>800 to 1500 square feet</i>	<i>32 square feet</i>
<i>1501 to 2000 square feet</i>	<i>48 square feet</i>
<i>2001 to 2500 square feet</i>	<i>64 square feet</i>

Better define width of necessary access.

Appendix F: Work Group Report: Small Quantity Dredging

If dredging is needed but it does not require an Army Corps of Engineer's permit, meaning it is less than 10 cubic yards and is not beneath the boat dock structure, then it needs to be reviewed by City staff.

At this time it is the responsibility of the Parks Board to review (but not approve or deny) this dredging.

§ 25-7-63 REVIEW BY PARKS AND RECREATION BOARD OF CERTAIN SITE PLANS.

Remedy Analysis:

Clarify that no more than 10 cy can be dredged with a boat dock site plan and that this small quantity dredging will be inspected by WPD/ERM staff.

Currently dredging is found in 25-7, but drainage reviewers don't review boat docks, so this directive should move to clarify Article 7 of 25-8 and Title 8 of LDC.

Parks Board would like to have Environmental Board review instead.

Appendix G: Accessory to Residence

Issue: Accessory to a Residence boat docks on properties with no residences and off site owners

Problem Analysis: Our requirement that the Owner must have lot within the City of Austin but can build a dock without owning an adjacent house is inconsistent with the rest of our code. Our code allows construction of accessories to residences if the residence is on the same lot. All other accessory uses must be adjacent to a residence.

Cause Analysis:

LDC 25-2-893 (G)

Application Packet 19 should also be revised.

Remedy Analysis:

Boat docks should be an accessory to a residence on the same lot.

Dissenting view: This is referring to less than 150 remaining lots. Assuming only a few want to build docks first, why is this an issue? Can't I live downtown and still build a boat dock on my lake lot? This has been a long standing practice and multiple precedents have been set.

Appendix H: Modifications that Qualify for Site Plan Exemptions

Issue: What maintenance or modification of an existing non-conforming boat dock qualifies as a Site Plan Exemption instead of a Site Plan?

Problem Analysis:

The level of staff input required for boat dock review requires a site plan process, not a site plan exemption. Exemptions do not trigger building inspection and often not environmental inspection. Exemptions are reviewed by staff in the Development Assistance Center, which is a limited group that does not include members of PARD or Environmental Resource Management and therefore the coordination for the review of exemptions can be unwieldy. The cost of a site plan exemption is only \$94 and is not intended for projects that require significant staff review or inspection resources. Because development along Lake Austin frequently occurs adjacent to Critical Environmental Features, all projects require site visits from either Environmental Resource Management or Environmental Reviewers, which is often impossible for DAC staff, who are intended to be largely available to the public for walk-in visits.

Cause Analysis:

Reviewed LDC, ECM, Application Packet 19,

25-5-2 SITE PLAN EXEMPTIONS.

📖 § 25-5-3 SMALL PROJECTS.

Remedy Analysis

Set up period for all existing docks and bulkheads to register with the City.

Need to define what may will qualify for an exemption, what will not, to allow enforcement of 50% rule.

Appendix I: Work Group Report – Light Pollution

Problem Analysis:

Boat docks require outdoor lighting for navigation safety. Current code requires shielded low wattage lights. But it is unclear who is to enforce this.

Cause Analysis:

Land Development Code:

📖 § 25-2-1175 LIGHTING AND ELECTRICAL REQUIREMENTS.

📖 § 25-2-1176 REGULATIONS.

Remedy Analysis: Assign clear responsibility for compliance with light fixtures to applicable City Staff.

Appendix J: Public Comments

Comments from Speak Up Austin online portal:

Topics	Question
Environment	What are some of the environmental issues and challenges facing the Lake Austin area that require immediate action?
1	October 19, 2012 at 10:31am To better protect water quality and quantity flowing to Lake Austin we have to start using a "cumulative effect model" for development applications. Currently everything is approved on a site by site basis with seemingly no concern for cumulative impacts. Look at how much we are spending on a tunnel under Waller Creek! We do the same with traffic. Guess what...every proposed development pretty much gets a thumbs up. The old model is broken.
2	October 19, 2012 at 10:51am Force development to include water quality controls for pollution and discharge that will result in either a net zero impact or positive impact on water quality. maintaining the natural water systems of austin is paramount and in line with the idea of "a city within a park." we need to stop treating our waterways as sewers.
3	October 24, 2012 at 2:33pm Maintain & enforce the Urban & Suburban Watershed impervious limits. Make them more strict for upcoming development, i.e., the above suggested Net Zero or positive impact. Limit the noise allowed. Require that new bulkheads, and modifications to existing ones, be constructed in a way so as to break up the wake, rather than just bouncing it back. Impose an annual 'hydrilla remediation fee' on all boats registered in the ATX area,, launched from public docks/landings
4	October 19, 2012 at 7:45pm Shouldn't the Lake Austin watershed have the same strict environmental controls for development that the Barton Springs/Edwards Aquifer watershed does, especially since most of our drinking water come from the lake? I never understood why the Lake Austin watershed was not emphasized. Also, stop putting non-native carp in Lake Austin. they will spread everywhere, and they don't just eat hydrilla, they eat all aquatic vegetation. If you want to get rid of hydrilla remove it directly instead of bringing in invasive species or using chemicals

5	<p>October 22, 2012 at 11:18am</p> <p>All improved property run off needs to go through some type of retention pond. We need a "residential scale" retention pond that is not grandfathered. No exceptions. And, of course, all water siphons from the Lake must be metered and billed. The are beneficial, if they are metered, rather than running them through our drinking water system. Consider limiting fertilizers to quickly biodegrading types ... Golf courses need to retain and treat their run off. Noise pollution standards should be established and monitored (ban cigar boats).</p>
6	<p>October 23, 2012 at 2:14pm</p> <p>I agree with this: " Noise pollution standards should be established and monitored (ban cigar boats)." These boats also create a safety hazard since they are typically out on busy weekends running up and down the lake and very high speeds.</p>
7	<p>October 26, 2012 at 10:13am</p> <p>Obviously the most challenging issues are 1) Hydrilla/Duckweed 2) Overcrowding/Safety 3)Shoreline/Erosion In an attempt to explain the achievable resolutions I will do as an officer of the APD had advised me one day while on Lake Austin, "Think of this lake as the same as a highway in Austin." 1) Hydrilla/Duckweed: If there were plants growing in the middle of a road in Austin the city would do away with the plants using whatever means possible to allow access. 2) Overcrowding: Since Lake Austin is getting over-crowded more attention should be focused on maintaining safety, not cutting back on the people who use it. There are no laws that make Austinites stay off of Mopac at rush hour, but there are Patrol cars making sure everybody is following the laws. If someone was to be swerving around crazy like that of a boat pulling a tuber an officer would reprimand them in a proper manner. 3) Shoreline/Erosion: When guardrail damage occurs or curbs get smashed, the city fixes them and provides proper support to make them sustainable. They would never put the focus on the size of the cars causing the damage. If the shoreline is eroding then fix the shoreline with more support to make it sustainable.</p>

8	<p>Hydrilla November 9, 2012 at 5:12pm</p> <p>Wow, based on comments at today's public hearing it looks like I've made the City's "Most Wanted List" and the posse appear loaded and mounted for complete eradication exercises. COA Staff purported that I have been solely responsible for damage to homes and property during historical rain events and flooding, are you sure I did that? COA Staff have noted that I'm "ugly and out of control" -- what else did I really do besides filter sediment and pollutants from the City's Drinking Water Supply; oxygenate the waterway; stabilize lake bed; establish erosion control to shoreline; provide habitat for numerous fishes, organisms, and sustain life for many other of God's Creatures? COA Staff have represented that they are somehow responsible for my well-being but I live in Waters of the State of Texas. Has the City assumed responsibility for me and my neighbors without genuine authority? Wondering what the experts at TPWD would have to say about me and my neighbor's behavior? COA Staff have put forward data suggesting my current and historical area coverage (in acres) based on surveys -- alleging that I'm residing in greater than 30% of the waterway right now. Are you sure about this? Does the data presented actually differentiate between me and some of my other neighbors like Eurasian Watermilfoil? Or I'm I taking the heat for everybody? I've been labeled a "nuisance" but some of my non-native neighbors like Eurasian Watermilfoil (who take up many many acres of space) seem unaffected by the current accusations of harm and danger. Has the COA struck some kind of amnesty deal with Eurasian Watermilfoil? Why am I labeled such a nuisance and under attack while my neighbors are hardly mentioned? COA has introduced over 45 thousand exotic carp into Lake Austin to arguably control the so-called nuisance aquatic vegetation conditions based on survey data. How many acres do my Milfoil neighbors really occupy and why would COA hide these numbers? Why would COA introduce exotic carp into Lake Austin to eradicate me singly -- knowing full well the introduced exotic carp species have no palate for my neighbors like Milfoil? And then why advertise success/failure of these activities without genuine data from comprehensive planning and research? Maybe it's time to get real facts -- before it's too late...</p>
Development	How does development in the Lake Austin watershed, such as homes, businesses, docks, marinas, and other public facilities impact the lake?

1	<p>October 19, 2012 at 10:31am To better protect water quality and quantity flowing to Lake Austin we have to start using a "cumulative effect model" for development applications. Currently everything is approved on a site by site basis with seemingly no concern for cumulative impacts. Look at how much we are spending on a tunnel under Waller Creek! We do the same with traffic. Guess what...every proposed development pretty much gets a thumbs up. The old model is broken.</p>
2	<p>October 19, 2012 at 10:52am most of those are just fine but fertilizers and runoff muddy the water and pollute everything downstream. how easy is it to enact regulations for properties that discharge directly/indirectly into our shared watershed. no one should have the right to pollute</p>
3	<p>October 19, 2012 at 7:49pm I often wonder how much oil and gasoline are given off by the motorboats and jetskis that roam the lake, and how that affects our drinking water.</p>
4	<p>October 22, 2012 at 8:54am Just take a drive down Lakeshore Blvd and you'll see the immediate effects of the landscape being stripped and reshaped: enormous eroision, dumping of industrial waste, complete disregard for the natural topography. It should also be noted that in this lastest push to accommodate the demand for lakeside real estate by our recent transplants (and the developers who feed off them), the city has once again given the green light to the destruction of hundreds of units of affordable housing, which have been razed to create a new model neighborhood for those in the higher income brackets.</p>
5	<p>Lake Austin ... not Lady Bird / Town Lake right? ... Lake Austin is pretty much a private lake so it seems. There is not much access for the public to Lake Austin, save Emma Long Park ... maybe the City could buy a portion of the lake front property on the east / north side and turn it into a park and reserve it for only recreation (i.e. no ACL rentals to big money organizations like C3). Since supposedly another 1 million are moving to Austin in the next 15 years, they are going to need places to take their dogs to poop.</p>

	6	<p>November 9, 2012 at 9:54pm</p> <p>Hydrilla From my experience, development often times results in large collective impacts to the watershed and waterway. Primarily through sedimentation and pollutant loading during rainfall events which has resulted in impacted and/or impaired water quality. Several areas in the City's ETJ have little or no water quality comparative protection standards in relation to Full COA Jurisdiction areas, compliments of HB 1704. These loopholes should be tightened collectively and comprehensively -- and if you really want the City's Drinking Water Source protected, you won't act hastily on the whimsical cries of the special interest groups now lobbying to eradicate all submergent vegetation from the ecosystem.</p>
Policies and Procedures		How can the processes, policies and coordination between entities with jurisdiction over Lake Austin, like the city, the Lower Colorado River Authority, and the Texas Parks and Wildlife Department be improved
	1	<p>October 19, 2012 at 10:33am</p> <p>Take money out of the equation and just look at long term environmental health of the resource. Oh, and don't forget there is no such thing as consensus.</p>
	2	<p>October 19, 2012 at 10:53am</p> <p>produce a shared mission statement and stick to it.</p>
	3	<p>October 22, 2012 at 11:07am</p> <p>Town Lake / Lady Bird Lake) regulations. Far too political ... which means someone is going to get stroked. TPWD should be in charge for the surrounds and LCRA only for the water flow</p>
	4	<p>Hydrilla November 9, 2012 at 10:13pm</p> <p>The processes and policies need substantial review and modification from qualified experts. Detailed agreements and memorandums of understanding between all of these authorities should be crafted and followed. Creation of a "Water Master" program charged with implementation of the agreed management plans and programs might offer greater opportunity for bipartisanship. Talk and Listen with Open Mind...</p>
Lake Use and Management		What are some of the most pressing issues regarding recreational, commercial, and private uses of Lake Austin?
	1	<p>October 19, 2012 at 10:35am</p> <p>Increased demand for public use will not go away as more people move to urban areas. We need to keep as much as practical available for public use. We must look at cumulative impacts not case by case impacts.</p>
	2	<p>maintain public access so the entire lake doesn't become backyards for the rich.</p>

3	<p>October 19, 2012 at 10:54am</p> <p>We need to expand public access and acquire more parkland in this area. it doesn't have to be super-developed parks, just areas open to the public (like the low water crossing area). It would also be a good idea to purchase water quality land in the few areas still undeveloped in the Lake Austin watershed</p>
4	<p>October 19, 2012 at 7:55pm</p> <p>The Lakeshore district has already been levelled and is currently being reshaped and rezoned. The youth hostel, fior example quietly lost its lease, and will be replaced by yet another police facility to protect the new higher income residents set to move in and take over the former neighborhood. The only remaining frontier is just to the north- the Holly neighborhood, which is already being chopped up in computer models and re-imagined, mostly behind closed doors.</p>
5	<p>October 22, 2012 at 11:13am</p> <p>The land around Lake Austin (not Town Lake / Lady Bird Lake) has gone to who can pay the highest dollar. There are some very small County parks on the west / south side, and they are undeveloped as of now. If we could expand those and keep them pristine and away from concert promoters ... and maybe ... maybe build an over water connection from shore to shore (where appropriate, it could attract more public use for folks who can't afford a \$3 or \$4 million home on Lake Austin. Jet Skis may have to be permanently banned someday (if they aren't already).</p>
6	<p>October 23, 2012 at 1:58pm</p> <p>I wanted to reiterate the points I tried to make last night for the record. I was cut short so here goes: 1) Lake Austin is a river. As such it is prone to erosion since there is current and wind. I've been a recreational user of Lake Austin for over 12 years. By far the most visible erosion and bottom movements occurs during flooding. 2) Hydrilla continues to be the biggest use/safety issue on the lake. Let's deal with it once and for all. If more funding is required then let's look at ways to raise the money (increased usage fees, ramp fees, lakefront, etc...) 3) Boating safety is an issue with more pressure on the lake because of ramp closures on Lake Travis. Hydrilla has made this worse concentrating traffic into smaller areas. Inexperienced boaters power-turn, whip tubes into oncoming boat traffic, and are generally unaware of lake etiquette (cutting others off, passing on the right, following to close behind riders). 4) Big wakes can be produced by any boat size or type depending on the speed and weight of the boat. I've seen fishing boats swamp others with a slow start and turn (i.e. plowing). Based on scientific research it's virtually impossible to connect wake boats to shore line erosion. Ensuring that inexperienced boaters can deal with a wide variety of situations or scenarios I think would go a long way to solving complaints. James</p>

8	<p>October 23, 2012 at 3:54pm I feel last night's meeting went very well. There were representatives from both lake front property owners and recreational boaters. It is my opinion that the following key message was presented and received by the council: The overwhelming quantity of Hydrilla is the primary concern as it decreases the usable space for all boaters, therefore forcing tem to conduct their activities in concentrated areas of the river. This then presents two consequential issues; the first is that more boaters operating in less space presents a real safety concern; inexperienced boat drivers and a general lack of lake etiquette puts people at risk of being seriously injured or killed. The second perceived issue is that of the waves created by EVERY BOAT are causing accelerated bank erosion. This is simple not true and there is no evidence that confirms this theory. I believe the answer is simple: we must find a long term environmentally sustainable solution that will permanently remove the Hydrilla without using measures that may have a significant negative impact on the ecosystem. I suggest we investigate employing a full time Waterkeeper / Riverkeeper. Someone who is experienced in watershed management environmentally educated at a university level and who will tackle not just one issue, but use their position to maintain the natural environment, educate the community on water quality issues, and raise money to battle the numerous issues our beautiful river may face in the future. These positions can often be funded by state grants and require no local government or resident contribution. More information can be found at www.waterkeeper.org</p>
9	<p>October 26, 2012 at 10:41am Obviously the most challenging issues are 1) Hydrilla/Duckweed 2) Overcrowding/Safety 3)Shoreline/Erosion In an attempt to explain the achievable resolutions I will do as an officer of the APD had advised me one day while on Lake Austin, "Think of this lake as the same as a highway in Austin." 1) Hydrilla/Duckweed: If there were plants growing in the middle of a road in Austin the city would do away with the plants using whatever means possible to allow access. 2) Overcrowding: Since Lake Austin is getting over-crowded more attention should be focused on maintaining safety, not cutting back on the people who use it. There are no laws that make Austinites stay off of Mopac at rush hour, but there are Patrol cars making sure everybody is following the laws. If someone was to be swerving around crazy like that of a boat pulling a tuber an officer would reprimand them in a proper manner. 3) Shoreline/Erosion: When guardrail damage occurs or curbs get smashed, the city fixes them and provides proper support to make them sustainable. They would never put the focus on the size of the cars using the roads. If the shoreline is eroding then fix the shoreline with more support to make it sustainable. Cheers, Jarrod</p>

Written Comments from Public Meeting, May 20, 2013

Attendees were asked to provide all comments in writing and reference the specific LATF recommendation.

Recommendation	Comment
F6 and F8	Funding for public facilities to be used by all of Austin Texas or the planet should come from property taxes from all property owners, not just Lake Austin residents.
WQ3	You don't yet know the cause of the blue green algae blurriness and Lake Austin. Blue-green algae or cyanobacteria produce undesirable water quality and can be toxic which can then lead to closure recreational waters. Maybe due to the wake board boats? Maybe due to the many off leash dogs and Turkey Creek.
T-5	A proposal for a 50 foot no wake zone from the shore is useless since that is about what we have now. People's boat docks are getting damaged from wake board boats that are 50 feet from shore since that would be about 15 to 20 feet from their docks. And swimmers and people in kayak and canoe's and on paddle boards are still at risk from the huge wake produced at 50+ feet from shore.
T-5	From Planet Nautique Blog (planetnautique.com) "sad IMO that people are flocking to what requires the least amount of skill or effort, tubing and wake surfing, as they both create the largest impact on the lakes and waterways."
T-5	Wake board boats belong in larger, wider lakes where their impact on the environment and risks of harm to people and damage to their property would be much less; therefore, wake board boats should be banned from Lake Austin.
T-5	The wakeboard boats are most likely wounding or killing water fowl since the driver can't see them or the huge waves from their wake slam swimming in the 'ocean'. Wakeboard boats are hazardous to wildlife and habitat and should be banned from Lake Austin.
T-5	Thanks for the information. Please keep us in the loop. Unfortunately we are in South Carolina and will miss this meeting. We spend much time on the Lake and would like to be a ball supporting this issue of preserving the Lake from the massive waves and the way board error and surfers. Sally and Tim Barber
N/A	Enforce stronger erosion control in the pool Creek watershed upstream from the RR 2222 bridge to mitigate erosion downstream from the County Line restaurant, particularly the major silting that occur at the 90 degree right angle turn" in the Bull Creek channel about half a mile downstream from the County line restaurant.
N/A	I hope to see Lake Austin taken care of in a manner that preserves and protects the Lakes ecosystem and keeps it beautiful for visitors to enjoy it responsibly.

N/A	Concerned about erosion we are losing land. Wake Boards really wash away the soil.
N/A	City should make the boat dock permitting process more straight forward.
N/A	Add more fish to control the aquatic vegetation and Hydrilla so that it does not get out of control safety issues for boaters are a major concern.
N/A	A concern about the noise from large boats and engine noise and music. Also, erosion concerns for homeowners along the lake.
PE-01	Change to, all lawn chemicals including fertilizers, pesticides, herbicides, insecticides, etc. Direct Lake patrol officers to enforce any existing law regarding smoking Marine engines or to develop on to limit engine smoking to 5 seconds or less. Develop an educational program to limit engine idling at boat ramps while the boat is in the water with in 200 feet of the ramp use the same program to prohibit engine starts outside of the water when other people are present. Due to concerns regarding air pollution. air and water internal combustion engines made.
T1-T5	I'm highly supportive of T-1 - T5. Dedicate public funding and applied for any grant funding available to develop a scrap which program for carbonated two -- stroke outbound engine because these are among the most polluting air and water internal combustion engines ever made.
F7	I strongly support at F7 have the Austin Police Department Lake patrol develop a plan to increase enforcement off the terrain from bolts onto the water. Develop and ordinance to require inspections for specific systems at regular intervals D. G. Every five years so that the fee pays for the inspectors time. Evaluate the development controls and re-mediation opportunities to improve water quality in the ball Creek watershed that flows into Lake Austin.
BDBI	The City needs to make it easier to get a boat dock permit, even if you have to cross critical environmental features. I have spent three years about \$200,000. I have filed three different site plans and I still can't get a permit. The city is wasteful of time, money and effort. They are obstructionists. They have a green agenda, but Lake Austin is not a national park. They don't trust me, the owner of the land, to take proper care of my own property. They think only they know that what is best.
BDBI	Existing boat docks not under active enforcement action are legal accessory used to single-family residential use. Arbitrary grandfather cut off date is wrong. Up-zoning should not be restricted if I'd got to zoning does not meet the performance standards of the use district classification. For example, many West bank lots were platted or (determined legal tracks) before April 1982 when the city adopted LA zoning and classified all lots on the lake LA whether they met the minimum 1 acre lot size or not..
BDBI	Re: boat docks: existing boat docks should all be grandfathered regardless of when built the effective date should be date any ordinance change is made 1974 is 30 years ago and backdating ordinance is unreasonable.
BDBI	Disagree with the 1974 recommendation. The BDBI rule is unreasonable. At least 1984
<u>N/A</u>	Boat Dock regulations seem reasonable to me. Fee for launching at public ramp good idea. No wake zone a good idea.

<u>N/A</u>	1. Create a Lake use management department to focus on all these proposed regulations instead of Texas Parks and wildlife wood zero funding.
<u>N/A</u>	2. Install commercial eateries or such with income to fund Lake use management.
<u>N/A</u>	Who is responsible for managing hazard markers on Lake?
<u>N/A</u>	3. How will the City work with County to coordinate fees and usage?
<u>N/A</u>	Tackle simple problems first. Get all hazard markers back in proper place.
<u>N/A</u>	How will LCR a managed the water flow if we get a large rain? Flood management with vegetation in the Lake changes the process greatly. Good Communication is key!
<u>N/A</u>	Big issue is co-operation between jurisdictions on the lakes. An APD Officer should not be issuing citations when the funds generated go to the County- not the City. No issue with charging at ramps as long as funds collected go to funding ramp and parking areas and safety enforcement. No \$ has been put into this in 20+ years. This area looks like a jeep trail. Not a parking lot.
<u>N/A</u>	The tagging and recordation of all existing docks, is a great idea and will help current and future owners know what the city knows about the property.
<u>N/A</u>	We support: All future shoreline modifications should be in the direction of a 12/1 sand beach.
<u>N/A</u>	Control of no weight on bull Creek is nonexistent. Lots of erosion occurs.
<u>BDBI</u>	\$50-\$75 fee should be deleted. (Shoreline property owners) our property value taxation is enough to cover this! Any fee you create will always increase somewhere in the future. Take some of the property tax already in place to cover this.
<u>N/A</u>	Fees collected by Travis County should be used for Lake Austin benefits! Place "no swimming" signs near Loop 360 launch area. Very dangerous area for swimmers/families when boats are trying to use ramps.
<u>N/A</u>	How many docks and bulkheads are on the lake?
<u>N/A</u>	What % of docks are 1. Illegal, 2 Non-compliance?
<u>N/A</u>	What % of Bulkheads are 2. Illegal 2. Non-Compliance?
<u>N/A</u>	Wake boats cause damage sediment from shoreline erosion clouds water, making it uninviting for swimming or fishing. May damage docks by thrusting them against their moorings. Property owners may lose your line due to erosion. Sediment from shoreline erosion can silt and fish spawning habitat and smother aquatic vegetation. Large weights may disturb nesting birds.
<u>N/A</u>	Wakeboard boats are 30 times more destructive than ordinary boats *Hydrologists estimate that a wake 5 inches high produces limited damage to the shoreline * a 10-inch wake is 5 times more destructive* A 25-inch wake is 30 times more destructive * Wake Board boats can create wakes of 25 inches or more * source: Oregon State Boater's Guide.
<u>N/A</u>	Wakeboard boats are a safety hazard *Danger to swimmers * Danger to people on paddle boards *Danger to small boats

N/A	Wake Boats Need to be Restructured on Lake Austin. All Highland lakes have boating regulations except Lake Austin *No person may operate a vessel within 50 feet of a shoreline, structures, or swimmers at a speed greater than the minimum speed necessary to maintain steerageway and headway (a no wake speed) *Watercraft noise may not exceed 92 decibels *More law enforcement personnel and purchase of adequate equipment for lake patrol and public education * Watercraft may not operate faster than 20 miles per hour or the minimum planing speed at night on the Highland Lakes source: LCRA Land and Water Use Regulations
N/A	The no-wake zone around the entire lake needs to be like the LCRA at least 50 feet from the shore, docks, or swimmers. For wake boats it needs to be larger, like 100 feet
N/A	LCRA owns the water, stores it on my property for free, never asked me to do that and pays no fee to me. I paid to LCRA an irrigation fee to use the water. LCRA sells the water. Can they pay the substantial fees required to manage the lake, since they derive the greatest financial benefit?
N/A	The city needs a plan to educate boaters with signage is at ramps leaflets, etc. about the no wake zone near shore, swimmers, and boat docks and the Sound Ordinance.
N/A	I would be concerned that charging fees at the boat ramps would exclude people that could not afford the fees for using Lake. Saying if you can afford to live on the Lake you can use your Boat for free, but otherwise trailer your boat and pay. If fees are charged they should be affordable and annual memberships available.
N/A	Mooring Buoys present hazards and permit mooring to tethers to prevent allowing water crafts to <i>circumvent the code relating to docking watercraft</i> .
N/A	Why the inconsistently? Strict regulations on docks and no regulations on personal Buoys?
N/A	People on the lake should respect each others right. Blaring music distracts or disturbs and is not considerate of others right. Keep the noise down.
	For the restaurants along the Lake Austin, we spend an extensive amount of time and money repairing our boat docks due to the boats who park there beating against them due to the bad wakes. We would like to have a no wake zone put in place to accommodate boaters' fear of getting their boats beat u and also to help save time and money every year to repair these docks.
N/A	We are traveling at the moment but would love to be there. In the past year we have had to put two loads of 1" gravel behind our sea wall to keep the wash-out from devouring our yard. This is a new problem that we have NOT had to deal with in the 23 plus years we've lived on the lakes edge. In addition, we've had tremendous damage to our boat dock caused fenders and ladders have had to be replaced frequently.
N/A	There should be signage to educate boaters of the special needs of boating on Lake Austin...Wake Boarders should be asked to stay at least 50 feet away from shore. I've seen them so close they could throw a beer can on my deck as they pass by!!! Wakes, noise and speed should all be looked at closely in hopes of not deteriorating our beautiful lake.

N/A	Lastly, the noise factor is absolutely insane. Lake Austin is a "neighborhood" lake. It's the backyard to hundreds of Austin residents living along it's shore. If someone drove up in a car in in our front yard with speakers outside of it blasting at full volume and heavy bass, they'd get a ticket. In ur backyard there can be 5 or 6 boats ALL blasting a the same time and no one seems to pay any attention tothem. What the heck are the Park Patrols out there for?
N/A	Most of the issues addressed only affect small property owners and vastly reduce the value of their assets.
N/A	There should be no restrictions on up zoning of lots temporarily zoned.
N/A	The lake is much more pleasant when the personal watercraft are not allowed. Would be nice to have one day a month even -one weekend.

Appendix K: LATF Information Requests Tracking

Updated: February 13, 2013

Date Requested	Summary of Info Request	Request or	Assigned To	Date Provided	Response
8/14/2012	Large map of the OSSF slide presented 8/6/2012. Status of AWU developing advanced standards and alternative WW service options per Aug 2011 City Council hearing.	Carol	Bart Jennings AWU response	1/15/2013	<p>see Maps in Resource Manual for OSSF slide.</p> <p>AWU staff recently drafted a revision to Chapter 15-5 of the City Code related to Private On-site Sewage Facilities (OSSFs). The draft is currently being internally reviewed by City staff.</p> <p>AWU re-evaluates OSSFs when building permits are required for minor renovations to a single-family home.</p> <p>AWU continues to address OSSF issues on a case-by-case basis. For example, recently approximately fourteen property owners near Constant Springs Drive (in the Drinking Water Protection Zone) with aging and/or problematic OSSFs obtained City Council's approval to coordinate and construct wastewater extensions to the City's wastewater system to alleviate the need of continued use of their OSSFs. As problematic areas are identified, AWU will work with the property owners to determine a solution that best fits the situation in terms of the location of existing infrastructure, the extent of the problems in the geographical area, potential solutions, and associated funding sources. A systematic program to immediately transition off the use of OSSFs to centralized wastewater systems in the Drinking Water Protection Zone would be costly and may not be cost-effective if the existing OSSFs are operational and properly maintained.</p>

8/14/2012	Large, legible map of the zoning along Lake Austin.	Carol	Andrew Clamann	9/14/2012	One hardcopy, and it is really large (but legible)! Get from Carol if want to reference.
8/14/2012	Under what circumstances were "recessed boat docks" required/allowed (see 13-2-795 of prior LDC), and when/why was the practice discontinued?	Carol	George Zapalac	1/15/2013	The pre-1999 regulations in 13-2-795 (1) mentioned a recessed boat dock as a type of structure that could not constitute a hazard to navigation. It was subject to the same requirements as any other boat dock. When the Code was rewritten into "plain English" in 1999, this reference was apparently determined to be unnecessary and was eliminated. Most of the existing recessed boat docks along Lake Austin appear to have been built prior to the adoption of the Comprehensive Watershed Ordinance in 1986. Under the CWO, construction of a recessed boat dock would require a variance for construction in the Critical Water Quality Zone. This type of variance would probably not be supported by staff in most cases because the environmental disturbance created by the excavation would greatly exceed the disturbance caused by building a conventional boat dock, and the effects of construction (such as siltation) could not be easily mitigated.
8/14/2012	What is the significance of the dates Aug 26, 1976 and June 23, 1979 (LDC 25-2-1173) and March 1, 1984 (LDC 25-2-962)?	Carol	Susan Scallon & Greg Guernsey	1/15/2013	Unable to find the origin of the dates Aug 26, 1976 and June 23, 1979 (LDC 25-2-1173) March 1, 1984 (LDC 25-2-962): Ordinance 840301-S was the ordinance passed by Council on March 1, 1984 that changed the zoning designations and adopted 13-2A which superseded 13-2. Although the ordinance passed on March 1, 1984, the code became effective Jan 1, 1985. LA zoning was changed <u>from</u> : LA Lake Austin Residence (all height and Area Districts) Single family dwelling (minimum lot: 1 acre) <u>to</u> : LA Lake Austin Residence District, Height 35 feet Single family Dwelling (min lot 1 acre). The new LA zoning regulations used the March 1,

					1984 date to allow structures that were legally placed prior to March 1, 1984 to remain legal even though the new regulations were in effect. The changes were basically the current LA district setbacks, height, etc. regulations.
8/14/2012	Detailed report on the number, type, and location of calls that Lake Patrol responds to, and number and nature of citations issued.	Carol	John Scott (Lake Patrol) via Andrew Clamann	2/12/2013	See LAPatrol LakeCitationsupdate.pdf , LakeUse\LAPatrol lake reports 2012-2013ytd.pdf , and LakeUse\LAPatrol Lake unit calls 01012012 to 01312013.pdf
9/20/2012	Example of regulations and enforcement for jurisdictions/lakes that have banned the use of ballast tanks, such as Lake McQueeney near New Braunfels.	Ken	Chuck Lesniak	1/15/2013	City Staff does not have the requested information. (City Staff will gather in-house information and data that is not readily available to the public in addition to providing clarity on supporting code, criteria, rules, development, policies, historical background etc., however, internet research on external sources is more appropriately done by individuals.)
9/20/2012	Number, location, and type of WW treatment plants within the LA watershed, and data on permitting and inspection of OSSF systems.	Ken	Bart Jennings, AWU	1/15/2013	AWU response: See map02 OSSFs for the location of OSSFs within the CoA OSSF jurisdiction within the LA watershed. WWTP LAWatershed shows wastewater treatment plants located near the LA watershed. To the best of our knowledge, none of the plants are actually located in the watershed. Some of their service areas are located within the LA watershed. All three of the plants have non-discharge permits and use irrigation as the method to dispose of the treated effluent. The Steiner Ranch wastewater treatment plant also is a wholesale wastewater customer of the City in that when treated effluent cannot be disposed of through irrigation due to weather conditions or amount of flow, then the treated effluent is transported to the City's wastewater system via a force main. OSSFActivityLAWatershed provides historical OSSF data related to the Lake

					Austin watershed. The data comes from different data sources within AWU which are color-coded in the spreadsheet.
11/13/2012	Need a reference map that combines the Lake Austin map that shows buoys, private/public rentals, bluffs, vertical bulkheading with the mile markers (Larry copied and sent the 2 maps to Chuck)	Carol (via Plannin g Meeting)	Andrew Clamann	1/22/2013	The " LA areas of bluff potential.pdf " provides programmatically estimated location of steep slopes that may or may not meet the definition of Bluff. Only ground-truthing can provide verification of presence/absence of CEFs. The " LA buoys and Marinas " provides the GIS information that PARD has from 2009. Sheet 1 of 5 is an overview, while Sheets 2, 3 and 4 provide greater resolution. Marinas are labeled with the field included in the data base. Buoys are labeled numerically with information included on sheet 5 of 5 . We do not have updated vertical bulkhead GIS information at this time.
11/19/2012 request to City 01/28/2013 request to Travis Cty	What are the amenities, hours, amount of vehicle & trailer parking, fees, acreage, usage, and annual collections for each of the boat ramps on LA. For the 360 boat ramp, what is the annual budget for staffing and maintaining the ramp?	Ellen	Chris Yanez	Partial from CofA 12/19/2012 Robert Armistead for Travis County 2/6/2013	<u>Emma Long Metro Park/Approx. 1100 acres</u> , (Boat Ramp/Trailer Parking Area Approx. 1 acre), 2 boat ramps, 2 piers/boat docks, unspecified number of trailer parking spaces, M/W restroom, benches, picnic tables, trash cans, Open 7 days a week/365 days a year; 7am-10pm, \$5 daily park entrance fee Mon.-Thur.; \$10 daily park entrance fee Fri.-Sun (and holidays); separate fees for camp sites *(numbers for boat ramp usage are not specifically tracked.), Approx. 2,300 park visitors w/ boats in FY12_ \$287,324 FY12 Expenses for O&M. \$493,000 FY12 Revenue Collected (revenue goes to General Fund) <u>Walsh Boat Landing/Approx. 4 acres</u> , 3 boat ramps, 2 piers/boat docks, unspecified number of trailer parking spaces (approx. 30 spaces), M/W restroom, drinking fountain, benches, picnic tables, trash cans, mutt mitt stations, wastewater removal system/vacuum, Open 7 days a week/365 days a year; 7am-10pm, Free 7 days a week unless;(\$10 daily parking lot fee; weekends and holidays only-

					<p>Memorial Day weekend to Labor Day weekend) *(numbers for boat ramp usage are not specifically tracked.) \$10,337.75 FY12 Expenses for O&M. \$23,179.05 FY12 Revenue Collected (revenue goes to General Fund)</p> <p><u>Loop 360 Boat Ramp</u> This information is not maintained by City Staff (contact Travis County Parks Dept. Robert Armistead)</p> <h2>Loop 360</h2> <p>Amenities available – boat ramp (3 lanes), restrooms (portable toilet), picnic tables, grills Acreage – 3.0 Hours of operation – Sunrise to Sunset Days/seasons of operation – Open 365 days per year Amount of parking (vehicle and trailer)- 21 trailer, 14 vehicle, 1 handicap Fees charged and annual collections - \$10 per vehicle + \$2 per trailer, \$100 Annual Pass (\$50 duplicate), \$30 Trailer Annual Pass, Over 62 years of age & 60% service related disabled veterans (free)</p> <p>Annual permit revenue – \$107,328 Annual budget for staffing (Loop 360) – \$ 141,869 Annual budget for maintaining ramp and area – \$ 120,095.70</p> <h2>Mary Quinlan Park</h2> <p>Amenities available – boat ramp (2 lanes), restrooms (portable toilet), picnic table, grill Acreage – 5.0 Hours of operation – Sunrise to Sunset Days/seasons of operation – Open 365 days per year</p>
--	--	--	--	--	--

					<p>Amount of parking (vehicle and trailer)- 32 vehicle/trailer spaces</p> <p>Fees charged and annual collections - none</p> <p>Annual permit revenue – none</p> <p>Annual budget for staffing (Mary Quinlan Park) – utilizes staff from Mansfield Dam Park</p> <p>Annual budget for maintaining ramp and area – \$ 17,120</p>
11/26/2012	Briefing/summary on the State of Texas water code and the authority municipalities have to regulate water use and recreational activities.	Carol	Andrew Clamann	1/7/2013	Full copy of Water Safety Act and a digest/summary of the Act provided in Resource Manual Jan 7, 2013. In addition, Ellen Witt indicated via phone conference (Jan 2, 2013) that she has contacted a person at TPWD that may be able to provide the requested information.
12/17/2012	Request for copy of the MOU between City of Austin and the LCRA for setting buoys.	Alan/Carol	Chris Yanez	1/15/2013	See Interlocal Agreement and Draft Amendment