

# **RECOMMENDATION FOR CODE AND CRITERIA CHANGES REGARDING ACCESS TO SHORELINE (TRAMS) AND SHORELINE MODIFICATIONS Planning Commission October 12, 2010**

## **Introduction**

Watershed Protection will provide a follow-up to the September 28, 2010 presentation of the proposed draft code amendments regarding shoreline access and shoreline modification. The follow-up will provide responses to comments from the previous presentation and provide additional opportunity for the community to comment. The draft amendments and proposed ECM section remain unchanged. The September 28, 2010 slide presentation, draft code amendments, ECM section are available at [http://www.ci.austin.tx.us/watershed/bulkhead\\_new.htm](http://www.ci.austin.tx.us/watershed/bulkhead_new.htm)

The following sections were provided for the September 28, 2010 backup summary:

## **Description:**

Amend the City Code, Chapter 25-2, Subchapter C, Article 13 relating to docks, bulkheads and shoreline access, Chapter 25-5-2 relating to site plan exemptions and Chapter 25-8-92 relating to Critical Water Quality Zone boundaries. This Code amendment proposes to clarify regulations for shoreline access (i.e. trams or incline elevators) and modify shoreline protection requirements to include the prevention of vertical bulkheads, promotion of stable and environmentally-functional shorelines that provide wave abatement, and provide additional guidance to protect the integrity, water quality and safety of Lake Austin, Lady Bird Lake, and Lake Walter E. Long as requested by the Parks Board, Environmental Board and Planning Commission in 2009. Amendments to 25-5-2 (Site Plan Exemption) will clarify related site plan exemptions for maintenance. Amendments to 25-8-92 will provide clarification that the inundated areas of the lakes are part of the Critical Water Quality Zone. A new section of the ECM will be proposed to support the amended code.

## **Background:**

There has been an increase in permitting requests for incline elevators (trams) as a means of providing access to the lake shore over cliffs or slopes. While traditional methods of access such as footpaths, stairs or sidewalks are addressed in the code, additional requirements are needed to regulate incline elevators and protect Critical Environmental Features.

Vertical bulkheads currently compose approximately one-half of the shoreline of Lake Austin and typically do not support the environmental, water quality and wave abating benefits that naturally sloped and vegetated shorelines provide. The First National Lakes Assessment by the EPA “shows that poor habitat condition along the shoreline is the most significant stressor in lakes” and that “local, state and national initiatives should center on protecting shoreline habitats.” Current code language prohibiting “smooth, vertical bulkheads” has led to problematic interpretations. Attempts in 2005 to provide clarification has not resulted in a substantive change in the typical development practices. WPD Environmental Resource Management Division has provided a webpage summarizing the disadvantages of vertical bulkheads, benefits of sloped and vegetated shorelines, alternatives to vertical bulkheads, guidance resources and proposed draft code/criteria amendments. [http://www.ci.austin.tx.us/watershed/bulkhead\\_shoreline.htm](http://www.ci.austin.tx.us/watershed/bulkhead_shoreline.htm).

### **Summary of Proposed Changes to the LDC:**

#### LDC 25-2 Article 13 (Boat Docks)

- Change Article 13 title to “Docks, Bulkheads and Shoreline Access”
- Replace “Town Lake” with “Lady Bird Lake” to reflect current name.
- Prohibit new boat ramps
- Prohibit storage of toxic or hazardous materials over water (fuel, herbicides, insecticides, etc)
- Include definitions for bulkhead and shoreline access (trams)
- Require site plan and building permit for shoreline access (trams)
- Require a licensed third-party inspection for trams (to meet State regulations)
- Construction of shoreline access must minimize disturbance to vegetation, preserve canopy, replace herbaceous ground cover and be screened from view with vegetation
- Shoreline stabilization to minimize wave action and wave return, demonstrate design guidelines and materials as specified in ECM (forthcoming), no bulkhead or revetment slopes greater than 45 degrees (unless in narrow man-made channels)
- Prohibit capturing or recapturing of land

#### LDC 25-8-92 (CWQZ)

- Clearly establish that inundated areas are part of the CWQZ

#### LDC 25-2-1066 (Screening Requirements)

- Trams must be screened from the view of property that is in an urban residence (SF-5) or more restrictive zoning district by providing vegetation and tree canopy as prescribed by rule.

#### LDC 25-5-2 (Site Plan Exemptions) and 25-5-3 (Small Projects)

- Site plan is not required for maintenance if structure was legally constructed, no variance is required, no board or commission approval required, no change to footprint, and no addition or replacement of piles unless the structure is compliant with current code
- Shoreline access exceeding 50ft and 35% gradient is not considered a small project

### **Historical Initiatives/Stakeholder Input**

- February 1, 2005: Development community meets with the LCRA Lake Austin Advisory Panel (LAAP) to express concerns about the delay in bulkhead approvals by the City
- March 8, 2005: PARD presents City process and goals for shoreline development to LAAP
- August 22 and September 8, 2005: LAAP observes wave action on various shorelines
- October 16 & 20, 2005: LAAP and stakeholders provide bulkhead design recommendations to PARD
- December 2, 2005: City Public Works Department presents PARD with proposed draft criteria and standard details requiring rip-rap, rock gabions or other revetment design to be installed for wave attenuation.

### **Recent Initiatives/Boards and Commissions:**

- Winter 2009: During routine hydrilla management field efforts, ERM Staff observes degraded biological community and lakebed scouring common at shorelines with vertical bulkheads
- Feb 19, 2009: Parks Board resolution to recommend amending the LDC to require review and permitting of trams (incline elevators/shoreline access)
- March 2009: ERM Staff estimates vertical bulkheads compose 42% of Lake Austin shoreline, observes a lack of compliance with recommended methods provided in 2005 by Public Works, and initiates literature review regarding shoreline development methods
- May 20, 2009: ERM presents findings to the Environmental Board
- July 15, 2009: Environmental Board recommends to the Planning Commission to initiate staff development of code and criteria changes as necessary to clarify shoreline protection requirements in conjunction with amendments related to trams
- Aug 25, 2009: Parks Board moved to support the Environmental Board resolution
- Oct 27, 2009: Planning Commission initiates staff development of code changes
- April/May 2010: ERM provides status presentations to Parks Board and Environmental Board
- June/July 2010: Environmental Board Subcommittee meetings for code amendments (with stakeholders)
- July 21, 2010: Environmental Board Motion to support draft code amendments
- Aug 24, 2010: Parks Board Motion to support draft code amendments
- September 17, 2010: Environmental Criteria Manual draft provided to stakeholders
- September 28, 2010: Planning Commission

**Backup Material Resource Links:**

The following list presents an abbreviated list of resources on shoreline stabilization provided by federal, regional, state and municipal entities. Included resources include a literature review, handbooks for landowners, alternative method recommendations and technical guidance. A more thorough list of resources can be provided upon request. The *Shoreline Stabilization Handbook* provides a thorough comparison of different methods and issues related to the topic.

**Shoreline Stabilization Handbook for Lake Champlain & Other Inland Lakes**

(Northwest Regional Planning Commission and NOAA)

<http://nsgd.gso.uri.edu/lcsg/lcsg04001.pdf>

**First National Lakes Assessment Released** (EPA)

<http://www.epa.gov/owow/info/NewsNotes/pdf/89issue.pdf>

**The Construction, Aesthetics, and Effects of Lakeshore Development: A Literature Review**

(Wisconsin Department of Natural Resources)

[http://dnr.wi.gov/org/es/science/publications/PUBL\\_SS\\_577\\_99.pdf](http://dnr.wi.gov/org/es/science/publications/PUBL_SS_577_99.pdf)

**Green Shorelines Report** (City of Seattle)

[http://www.cityofseattle.net/dpd/static/Green\\_Shorelines\\_Final\\_LatestReleased\\_DPDS015777.pdf](http://www.cityofseattle.net/dpd/static/Green_Shorelines_Final_LatestReleased_DPDS015777.pdf)

**Shore Erosion Control, the Natural Approach** (NRCS, NOAA, Maryland DNR)

[ftp://ftp-fc.sc.egov.usda.gov/MD/web\\_documents/programs/rcd/shore\\_esrcd.pdf](ftp://ftp-fc.sc.egov.usda.gov/MD/web_documents/programs/rcd/shore_esrcd.pdf)

**Streambank and Shoreline Stabilization Guidance** (Georgia DNR)

[http://www.gaepd.org/Files\\_PDF/techguide/wpb/Streambank\\_and\\_Shoreline\\_Stabilization\\_Guidance.pdf](http://www.gaepd.org/Files_PDF/techguide/wpb/Streambank_and_Shoreline_Stabilization_Guidance.pdf)

**Understanding, Living With, and Controlling Shoreline Erosion: A Guidebook for Shoreline Property Owners**

(Tip of the Mitt Watershed Council)

<http://www.watershedcouncil.org/resources%20and%20publications/files/Shoreline%20Erosion%203rd%20Edition.pdf>

**Erosion Control: Non-Structural Alternatives. A Shorefront Property Owner's Guide**

(North Carolina Coastal Federation)

[www.ncccoast.org/newsroom/images-pdfs/guides/ErosionBro.pdf](http://www.ncccoast.org/newsroom/images-pdfs/guides/ErosionBro.pdf)

**Engineering Field Handbook: Chapter 16 – Streambank and Shoreline Protection**

(USDA Natural Resource Conservation Service)

<ftp://ftp-nhq.sc.egov.usda.gov/NHQ/pub/outgoing/jbernard/CED-Directives/efh/EFH-Ch16.pdf>

**Staff Request:**

Staff requests the Planning Commission review and make recommendations for the proposed code amendments with anticipation of an October 28, 2010 City Council date. Staff also requests for support that the new section to the Environmental Criteria Manual be adopted through the Emergency Rules process with the formal stakeholder process to be completed through the 2nd quarter rules process.

**City Staff:**

Shoreline access (trams): Pat Murphy (974-2821)

Shoreline modifications (bulkheads): Andrew Clamann (974-2694)