Study of Recreational Boating use on Lakes Dunlap, McQueeny, Placid, Nolte (Meadow Lake), Gonzales (H4) & Wood (H5)

GBRA Public Meeting

27 March, 2010
Study Background & Purpose

1. Provide an overview of the modes of use; e.g., preferred activities, timing, area of use
2. Perceptions of lake conditions; social (e.g., crowding, safety) and environmental (e.g., lake conditions, erosion, aquatic vegetation)
3. Preferences for managing recreational boating
4. Perceived impact of recreational boating on shoreline structures/development
Who We Surveyed

1. Public boat ramp users surveyed over the Labor Day Holiday weekend
2. GBRA supplied mailing lists
3. County-wide mailing list

• 585 completed surveys
  – Dunlap=111; McQueeny=276; Placid=110; Nolte=22; Gonzales=13; Wood=31
Respondent Characteristics (overall)

• Age = 57 years
• Gender = 75% male
• Employment status = 50% employed fulltime; 33% retired
• Household income = 32% > $200K
Respondent Characteristics (overall)

• 66% own lakeshore properties
  – 57% their primary residence
  – Owned for 16 years (avg.)
  – 92% have a bulkhead/dock/slip
  – 46% indicated having bulkhead/dock/slip damaged from boating activities in last three years
  – $11,377 average cost of repair
Boat Use (overall)

- Most often used – 2009 Season
  - Speedboat/ski boat – 32.5%
  - Fishing/bass boat – 15.9%
  - Pontoon boat – 14.9%
  - Inflatable pulled behind another watercraft – 11.6%
  - Wakeboard boat – 9.5%
  - High performance boat – 1.3%
  - PWC – 14.0%

- Observed over July 4th and Labor Day holiday weekend
  - Speedboat/ski boat – 29.6%
  - Fishing/bass boat – 22.7%
  - Pontoon boat – 5.9%
  - Inflatable pulled behind another watercraft – 1.0%
  - Wakeboard boat – 13.4%
  - High performance boat – 0%
  - PWC – 46.8%
Crowding - Enjoyment

• How did the number of people you saw affect your overall enjoyment
  – 30% - “No effect” on my enjoyment
  – 38% - “Detracted a little from my enjoyment
  – 21% - “Detracted a lot from my enjoyment
Safety

• In light of the number of boats you saw on the lake this season, please rate how safe you felt
  – 8% - “Extremely safe”
  – 41% - “Moderately safe”
  – 8% - “Not at all safe”

• In light of the behavior of other boaters on the lake this season, please rate how safe you felt
  – 5% - “Extremely safe”
  – 41% - “Moderately safe”
  – 10% - “Not at all safe”
Crowding

• ... how would you describe the boating conditions on the lake... for the 2009 season?
  – 21.2% - “Extremely crowded”
  – 39.4% - “Moderately crowded”
Issues of Concern

• “Other boats came closer to my boat than I like”
  – 52.8% agree
  – 23.1% disagree

• “Boating in high use areas involved too much risk”
  – 51.4% agree
  – 32% disagree
Issues of Concern

• “Other boaters created massive wakes”
  – 65.2% agree
  – 20.1% disagree

• “I witnessed reckless boating operations by other boaters (i.e., unsafe speeds, dangerous behaviors, etc.)
  – 64.2% agree
  – 18.2% disagree
Issues of Concern

- “Other boaters played overly amplified music”
  - 46.4% agree
  - 28.1% disagree
- “I was bothered by personal watercraft cutting too close to my boat”
  - 51.5% agree
  - 31% disagree
Issues of Concern

• “There was adequate law enforcement patrols on the lake”
  – 53% agree
  – 32.5% disagree

• “The presence of personal watercraft interfered with the quality of my boating experience”
  – 41.6% agree
  – 35.6% disagree
Lake Management Preferences

• “Establish a minimum age of 15 years for the operation of personal watercraft (e.g., jetskis)”
  – 80.4% support
  – 9.4% oppose

• “Training for the operation of personal watercraft”
  – 84.5% support
  – 6.8% oppose
Lake Management Preferences

• “Establish a minimum age of 15 years for towing inflatables, skiers and wakeboarders”
  – 80% support
  – 11% oppose

• “Dredge the lake to improve depth”
  – 72.1% support
  – 12.4% oppose
Lake Management Preferences

• “Provide more aggressive enforcement of safety rules and regulations”
  – 62.4% support
  – 15.4% oppose

• “Cite boaters who’s music can be heard within 100 feet”
  – 45.4% support
  – 32.8% oppose
Lake Management Preferences

• “Training for all watercraft operators”
  – 80.4% support
  – 9.4% oppose

• “Online training for all watercraft operators”
  – 62% support
  – 15.4% oppose
Responses on Key Issues by Lake
Lake Dunlap
Lake Dunlap

- **89.7% lakeshore property owners**
- **Watercraft most often used – 2009 Season**
  - Speedboat/ski boat – 33.7%
  - Fishing/bass boat – 12.9%
  - Pontoon boat – 21.8%
  - Inflatable pulled behind another watercraft – 1.0
  - Wakeboard boat – 14.9%
  - PWC – 9.9%
Restricting Use to Zones Across the Lake

Activity Restriction for Zones

- PWC
- Wake
- Ski
- Pontoon
- Towing
- Other

Lake Dunlap

Dunlap Dam

Data Source: TMPOS, TANDT, U.S. Census Bureau
Projection: NAD 1983 State Plane Texas Central FIPS 4209
Datum: GCS North American 1983, Units: Feet
Areas Avoided

- Reasons
  - Narrow
  - Submerged obstacles
Crowding - Enjoyment

• How did the **number of people you saw** affect your overall enjoyment
  
  – 24.3% - “No effect” on my enjoyment
  
  – 51.5% - “Detracted a **little** from my enjoyment
  
  – 16.5% - “Detracted a **lot** from my enjoyment
Safety

• In light of the **number of boats** you saw on the lake this season, please rate how safe you felt
  - 2.9% - “Extremely safe”
  - 39.2% - “Moderately safe”
  - 4.9% - “Not at all safe”

• In light of the **behavior of other boaters** on the lake this season, please rate how safe you felt
  - 2.0% - “Extremely safe”
  - 40.2% - “Moderately safe”
  - 8.8% - “Not at all safe”
Perceived Crowding

• ... how would you describe the boating conditions on the lake... for the 2009 season?
  – 13.7% - “Extremely crowded”
  – 44.1% - “Moderately crowded”
Issues of Concern

• “Litter on shoreline”
  – 25.5% consider it a “moderate problem”
  – 35.7% consider it a “big problem”
• “Loud music played from watercraft”
  – 26.3% consider it a “moderate problem”
  – 33.3% consider it a “big problem”
• “Erosion of shoreline”
  – 15.2% consider it a “moderate problem”
  – 41.4% consider it a “big problem”
Issues of Concern

• “Large wakes from wakeboarding boats”
  – 11.1% consider it a “moderate problem”
  – 49.5% consider it a “big problem”
• “Aquatic vegetation”
  – 16.3% consider it a “moderate problem”
  – 32.7% consider it a “big problem”
Managerial Issues

• Respondents were most supportive of establishing a minimum age of 15 years for PWC operators & towing inflatables, in addition to requiring training for all PWC operators

• Other issues receiving support include more aggressive law enforcement and the dredging of the lake
Lake McQueeny

- 89.7% lakeshore property owners
- Watercraft most often used – 2009 Season
  - Speedboat/ski boat – 33.7%
  - Fishing/bass boat – 6.8%
  - Pontoon boat – 12.0%
  - Inflatable pulled behind another watercraft – 0
  - Wakeboard boat – 11.2%
  - PWC – 7.6%
Restricting Use to Zones Across the Lake
Areas Boaters’ Spend Most Time

Zonal Percentages for Most Time Spent
Number of responses = 420
Percentages in parentheses

- Zone 1 (9.3%)
- Zone 2 (26.9%)
- Zone 3 (19.5%)
- Zone 4 (19%)
- Zone 5 (20.2%)
- Zone 6 (5%)

Maps showing locations of Lake McQueeney, McQueeney Dam, and Dunlap Dam.
Areas Avoided

- **Reason**
  - Shallow
  - Obstacles (e.g., stumps, vegetation, sandbars, etc.)
Crowding - Enjoyment

• How did the number of people you saw affect your overall enjoyment
  – 34.0% - “No effect” on my enjoyment
  – 33.0% - “Detracted a little from my enjoyment
  – 25.2% - “Detracted a lot from my enjoyment
Safety

• In light of the number of boats you saw on the lake this season, please rate how safe you felt
  – 5.9% - “Extremely safe”
  – 40.2% - “Moderately safe”
  – 10.8% - “Not at all safe”

• In light of the behavior of other boaters on the lake this season, please rate how safe you felt
  – 2.9% - “Extremely safe”
  – 39.2% - “Moderately safe”
  – 11.8% - “Not at all safe”
Perceived Crowding

• ... how would you describe the boating conditions on the lake... for the 2009 season?
  – 25.2% - “Extremely crowded”
  – 31.3% - “Moderately crowded”
Issues of Concern

• “Loud music played from watercraft”
  – 18.6% consider it a “moderate problem”
  – 35.1% consider it a “big problem”

• “Erosion of shoreline”
  – 23.5% consider it a “moderate problem”
  – 33.7% consider it a “big problem”

• “Large wakes from wakeboarding boats”
  – 14.3% consider it a “moderate problem”
  – 41.8% consider it a “big problem”
Managerial Issues

- Respondents were most supportive of establishing a minimum age of 15 years for PWC operators & towing inflatables, in addition to requiring training for all PWC operators.

- Other issues receiving support include more aggressive law enforcement and the dredging of the lake.
Lake Placid
Lake Placid

• 70.1% lakeshore property owners
• Watercraft most often used – 2009 Season
  – Speedboat/ski boat – 40.6%
  – Fishing/bass boat – 17.7%
  – Pontoon boat – 19.8%
  – Inflatable pulled behind another watercraft – 0
  – Wakeboard boat – 10.4%
  – PWC – 6.2%
Restricting Use to Zones Across the Lake
Areas Boaters’ Spend Most Time

Zonal Percentages for Most Time Spent
Number of responses = 120
Percentages in parentheses

Zone 1 (50.6%)
Zone 2 (32.5%)
Zone 3 (16.7%)
Areas Avoided

- Reason
  - Shallow
  - Submerged obstacles
Crowding - Enjoyment

• How did the number of people you saw affect your overall enjoyment
  - 27.0% - “No effect” on my enjoyment
  - 39.5% - “Detracted a little from my enjoyment
  - 23.5% - “Detracted a lot from my enjoyment
Safety

• In light of the **number of boats** you saw on the lake this season, please rate how safe you felt
  - 6.8% - “Extremely safe”
  - 43.6% - “Moderately safe”
  - 8% - “Not at all safe”

• In light of the **behavior of other boaters** on the lake this season, please rate how safe you felt
  - 3.4% - “Extremely safe”
  - 43.2% - “Moderately safe”
  - 11.4% - “Not at all safe”
Perceived Crowding

• ... how would you describe the boating conditions on the lake... for the 2009 season?
  – 26.0% - “Extremely crowded”
  – 45.6% - “Moderately crowded”
Issues of Concern

• “Loud music played from watercraft”
  – 24.7% consider it a “moderate problem”
  – 19.0% consider it a “big problem”
• “Erosion of shoreline”
  – 17.8% consider it a “moderate problem”
  – 25.7% consider it a “big problem”
• “Large wakes from wakeboarding boats”
  – 19.4% consider it a “moderate problem”
  – 41.8% consider it a “big problem”
Issues of Concern

• “Inflatables/water toys trailing watercraft”
  – 19.8% consider it a “moderate problem”
  – 28.4% consider it a “big problem”
Managerial Issues

• Respondents were most supportive of establishing a minimum age of 15 years for PWC operators & towing inflatables, in addition to requiring training for all PWC operators

• Other issues receiving support include more aggressive law enforcement and the dredging of the lake
Lakes Nolte, Gonzales (H4) & Wood (H5)
Lakes Nolte, Gonzales & Wood

- Lakeshore property owners
  - 70% Nolte
  - 66% Gonzales
  - 19% Wood
Choice of Watercraft

**Nolte**
- Speedboat/ski boat – 5.3%
- Fishing/bass boat – 36.8%
- Pontoon boat – 15.8%
- Inflatable pulled behind another watercraft – 0%
- Wakeboard boat – 21.1%
- PWC – 21.1%

**Gonzales**
- Speedboat/ski boat – 0%
- Fishing/bass boat – 100.0%
- Pontoon boat – 0%
- Inflatable pulled behind another watercraft – 0%
- Wakeboard boat – 0%
- PWC – 0%

**Wood**
- Speedboat/ski boat – 23.5%
- Fishing/bass boat – 58.8%
- Pontoon boat – 5.9%
- Inflatable pulled behind another watercraft – 0%
- Wakeboard boat – 5.9%
- PWC – 0%
Areas Boaters’ Spend Most Time

Zonal Percentages for Most Time Spent
Number of responses = 20
Percentages in parentheses

Zone 3 (13.8%)
Max Strake Dam

Zone 2 (51.7%)

Zone 1 (34.5%)

Lake Nolte

Nolte Dam

Data Source: TMDX, U.S. Census Bureau
Projection: NAD 1983 State Plane Texas Central FIPS 4203
Datum: GCS North American 1983
North Feet
Areas Boaters’ Spend Most Time

Lake Gonzales

Zonal Percentages for Most Time Spent
Number of responses = 17
Percentages in parentheses

Zone 1 (11.8%)
Zone 2 (35.3%)
Zone 3 (23.5%)
Zone 4 (23.5%)
Zone 5 (5.9%)
Zone 6 (9%)

Gonzales Dam

Data Source: TM154, TDOT, U.S. Census Bureau
Projection: NAD 1983 State Plane Texas Central FIPS 4203
Datum: GCS North American 1983, Units: Feet
Areas Boaters’ Spend Most Time
Areas Avoided

- **Reason**
  - Shallow
  - Submerged obstacles
Areas Avoided

- Reason
  - Submerged obstacles
  - Shallow
Areas Avoided

- **Reason**
  - Submerged obstacles
  - Shallow
## Crowding - Enjoyment

- How did the **number of people you saw** affect your overall enjoyment

<table>
<thead>
<tr>
<th>Location</th>
<th>Percentage</th>
<th>Effect on Enjoyment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nolte</td>
<td>22.7%</td>
<td>Detracted a little from their enjoyment</td>
</tr>
<tr>
<td></td>
<td>13.6%</td>
<td>Detracted a lot from their enjoyment</td>
</tr>
<tr>
<td>Gonzales</td>
<td>66.7%</td>
<td>No effect on their enjoyment</td>
</tr>
<tr>
<td>Wood</td>
<td>60%</td>
<td>No effect on their enjoyment</td>
</tr>
</tbody>
</table>
Safety

• In light of the **number of boats** you saw on the lake this season, please rate how safe you felt
  – **Nolte**: 81.8% rated “moderately” to “extremely” safe
  – **Gonzales**: 91.7% : 81.8% rated “moderately” to “extremely” safe
  – **Wood**: 80.0% rated “moderately” to “extremely” safe

• In light of the **behavior of other boaters** on the lake this season, please rate how safe you felt
  – **Nolte**: 76.2% rated “moderately” to “extremely” safe
  – **Gonzales**: 100.0% : 81.8% rated “moderately” to “extremely” safe
  – **Wood**: 85.0% rated “moderately” to “extremely” safe
Perceived Crowding

• ... how would you describe the boating conditions on the lake... for the 2009 season?

Nolte
• 23.8% - “moderately crowded”
• 42.8% - “not at all crowded”

Gonzales
• 40% - “slightly crowded”
• 30% - “not at all crowded”

Wood
• 5% - “moderately crowded”
• 35% - “slightly crowded”
• 40% - “not at all crowded”
Issues of Concern

• **Nolte**
  – Litter on the shoreline, erosion of the shoreline, large wakes, towing inflatables

• **Gonzales**
  – Inadequate public toilet facilities, aquatic vegetation, insufficient navigational aides, debris at the launch ramps

• **Wood**
  – Aquatic vegetation, not enough public boat ramps, debris at launch ramps
Managerial Issues

• **All three lakes**
  – Respondents were most supportive of establishing a minimum age of 15 years for PWC operators & towing inflatables, in addition to requiring training for all PWC operators
  – Other issues receiving support include more aggressive law enforcement and the dredging of the lake

• **Gonzales & Wood**
  – Provide improved public access