



# Austin Parks & Recreation Department FY2022 ANNUAL CONCESSION REPORT



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**Appendix 1. Annual Concession Report Presentation Slides**

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**Appendix 3. Austin Lake Water Protection Plan and Marine Waste Information**

**Appendix 4. Lady Bird Lake Capacity Report, 2022**

## Executive Summary

The mission of the Parks and Recreation Department (PARC) is to inspire Austin to learn, play, protect and connect by creating diverse programs and experiences in sustainable natural spaces and public places.

In carrying out its mission, PARC has established nine permanent concessions in Town Lake Park that provide recreation services. These services include rentals of canoes, kayaks, and stand-up paddleboards (SUPs); rowing instruction and memberships; food and beverage sales; short-course golf; excursion boats; and a mini train. These concessions were established pursuant to City of Austin Code Section 8-1-71, which authorizes the director of the Parks and Recreation Department to allow a person to operate a food or beverage, rental, or service concession in Town Lake Park.

Section 8-1-73 also requires PARC to present an annual report on the status of concessions operating in Town Lake Park to the Parks and Recreation Board (PARB) and the Environmental Commission each year. At a minimum, the report must include the following information:

- The name and location of each concession;
- An income and expenditure statement for each concession;
- The total number of boats rented on Lady Bird Lake; and
- A statement describing any environmental or other problem caused or created by a concession.

Within 30 days of receiving the Annual Concession Report, PARB and the Environmental Commission make recommendations to the City Council regarding the following:

- The creation, continuation, or termination of a concession;
- The status of each existing concession; and



- Issuance of a request for proposals for a concession under this division.

Staff provided the required report on the fiscal year ending September 30, 2021, to the Parks and Recreation Board and the Environmental Commission on February 27 and March 1, 2022, respectively. The presentation to these committees is attached as Appendix 1.

The following information is a compilation of the report elements and recommendations received from both the Environmental Commission and the Parks and Recreation Board.

# Concession Locations

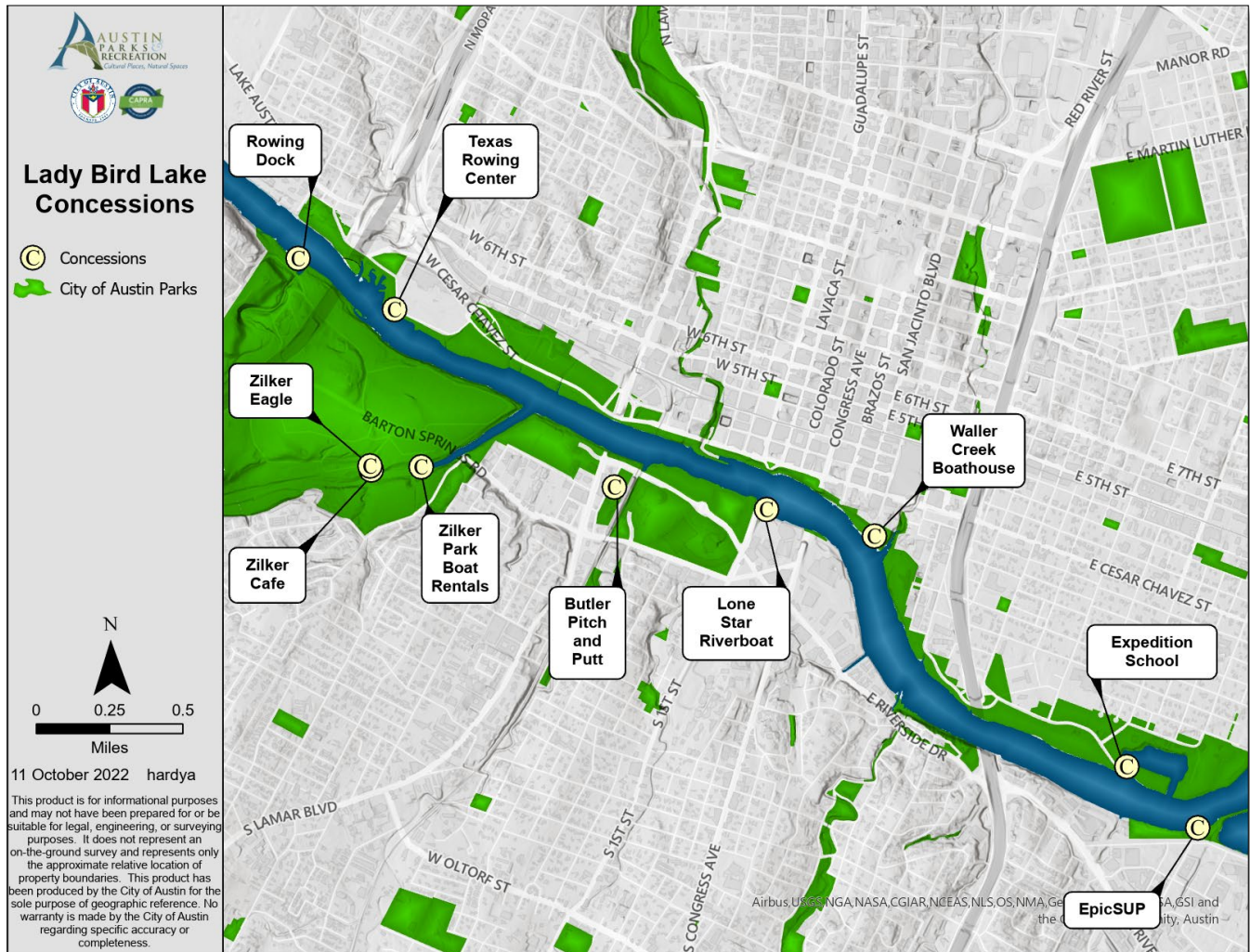


Figure 1. Map of Lady Bird Lake Concessions

As of FY22, there are nine concessions located in Town Lake Park.

- Seven provide water-based recreation services, including one or more of the following: rentals of canoes, kayaks, stand-up paddle boards (SUPs), and electric boats; summer water sports camps; rowing and paddling lessons and membership; guided group tours, team-building outings, and custom paddling events; fitness lessons; and lake excursion cruises.

- Rowing Dock
- Texas Rowing Center
- Zilker Park Boat Rentals
- Lone Star Riverboat
- Austin Rowing Club at Waller Creek Boathouse
- Expedition School
- EpicSUP
- Four provide varied activities that include food and beverage service, short-course golf, and a mini train, respectively:
  - Austin Rowing Club at Waller Creek Boathouse (Alta's Café)
  - Zilker Café (temporarily closed)
  - Butler Pitch and Putt
  - Zilker Eagle (formerly Zilker Zephyr; temporarily closed)
- Additionally, Austin Rowing Club at Waller Creek Boathouse offers event space rentals and an indoor rowing fitness studio.

# Concession Contracts

## Contract Terms

All the Town Lake Park concessions are currently under contract, except for Zilker Cafe. Figure 2 below shows the contract terms for each of the concessions. Changes to concession contracts in FY22 are discussed below.

## Solicitations and New Contracts

There were no concession solicitations or new contracts in FY22.

## Contract Extensions

### Expedition School

In December 2019, Council approved Ordinance no. 20191205-070, which authorized a boating concession on Lady Bird Lake for the Expedition School, a business that had previously been operating as a contract instructor at Camacho Recreation Center. In 2020, PARD executed an 18-month contract with Expedition School with an expiration date of April 28, 2022. The contract authorizes the vendor to operate from a temporary site at the Festival Beach Boat Ramp until appropriate infrastructure (such as a dock, boat storage, and pedestrian access) can be built at the permanent site, located at the west end of the lagoon near Fiesta Gardens. In January 2022, the contract was extended for a two-year period, until April 2024, to allow the vendor to operate at the current site while the new site is being developed. A separate contract is being drafted that will allow for development of the permanent site.

### Zilker Park Boat Rentals

The contract with Zilker Park Boat Rentals was set to expire in February 2022. However, after a two-year vision planning process for Zilker Park was initiated in 2021, PARD requested a two-year contract holdover so that any solicitation would be conducted

after the vision planning process had been completed. In February 2022, the holdover was executed, setting the new contract expiration date for February 28, 2024. In May 2022, a contract amendment was executed to authorize a \$3/hour increase in fees for watercraft rentals.

Concession	Contract Begin	Contract End	2000				2005				2010				2015				2020				2025				2030				2035			2040		
Austin Rowing Club at Waller Creek Boathouse	2012	2023													5		2		4																	
EpicSUP*	2013	2023													5		2		2																	
Rowing Dock	2000	2023	2			5			5					5					5																	
Expedition School	2020	2024																	18 mo.																	
Zilker Park Boat Rentals	2006	2024							5					5					5																	
Lone Star Riverboat	2015	2025													5				5																	
Butler Pitch & Putt	2019	2029																	10							5			5							
Texas Rowing Center	2020	2030																	10							5			5							
Zilker Eagle	2021	2031																	10										10							
Interim Period																																				
Basic Term																																				
Option Executed																																				
Option Remaining																																				
Holdover																																				

\*May 15, 2021-January 1, 2023, all revenue share payments go to The Trail Conservancy

Figure 2. Contract Terms for Lady Bird Lake Concessions

**Expiring Contracts**

Rowing Dock

The current agreement with Rowing Dock will expire in April 2023. The contract authorized a basic term of five years (2002-2007) with three five-year options (2007-2012, 2012-2017, 2017-2021). Due to the ongoing Zilker Park Vision Planning process, which began in 2020 and is set to be completed in early 2023, PARD planning staff recommended not to proceed with a solicitation at the site until a thorough assessment could be conducted to determine the site’s viability and its place in the Vision Plan. A two-year contract extension was recommended to allow for incorporation of the recommendations of the Vision Planning process into the next



solicitation process. However, the vendor requested and received Council approval for the City to limit the contract extension to one year only (Resolution no. 20220728-192). Consequently, the City released a Request for Proposals in fall 2022, with the goal of executing a new contract by April 2023.

#### Austin Rowing Club at Waller Creek Boathouse

The contract with Austin Rowing Club to manage and operate the Waller Creek Boathouse expires in February 2023. Typically, a solicitation for a new contract would be released about a year prior to contract expiration. However, in late 2021, plans were announced that Project Connect would require a bridge and tunnel to be built across the lake, necessitating the demolition of the boathouse. Because the demolition was projected to take place around 2024, the solicitation process paused until more details about the location of the transit line and construction timeline could be provided.

In summer 2022, PARD planning staff identified the site at 2200 S. Lakeshore Drive as a potential site for a new boathouse, should the Waller Creek Boathouse be demolished. Subsequently, Council Resolution no. 20220901-085 directed the City to coordinate with Austin Rowing Club regarding relocation efforts and to extend the contract with Austin Rowing Club so that it could remain at the Waller Creek Boathouse until 60 days prior to scheduled demolition. PARD will execute an amendment to provide a three-year contract extension, allowing the Austin Rowing Club to continue operating at the boathouse until more details are known about Project Connect.

#### EpicSUP/The Trail Conservancy

EpicSUP began in 2013 as a subcontractor of Hosteling International-USA (HI-USA), a group that held a license agreement with PARD for use of the building at 2200 S. Lakeshore Blvd. EpicSUP's contract with HI-USA required EpicSUP to pay 10% of gross

revenue to the City and 1% to HI-USA. When the hostel closed in 2020 due to COVID-19, HI-USA terminated its agreement with the City, and accordingly, the subcontract with EpicSUP was also terminated. In order for EpicSUP to continue providing watercraft rentals to the public, Council passed Resolution 20201112-071, which authorized EpicSUP to operate first through a temporary concession permit issued by PARD (with permit fees waived) and then through a contract with The Trail Conservancy (TTC), formerly The Trail Foundation. The agreement between TTC and EpicSUP, executed in April 2021, expired January 1, 2023; as well as the complementary agreement executed between PARD and TTC. Both contracts have been extended (see below). The agreement requires the vendor to pay 13.5% of all gross revenues to TTC; no payments are paid directly to PARD. TTC is required to submit to PARD copies of EpicSUP's monthly reports, which include total gross sales, total net revenue, sales tax, and payments. TTC is required to invest any revenue received from EpicSUP into direct care of the Ann and Roy Butler Hike and Bike Trail.

Resolution 20201112-07 directed that if the City Manager determines that concession operations should continue at this location after 2023, the City will follow applicable purchasing guidelines to secure future concession operations. In 2021, plans were announced that Project Connect would require a bridge and tunnel to be built across the lake, necessitating the demolition of the Waller Creek Boathouse. The site at 2200 S. Lakeshore Drive, near where EpicSUP operates, was identified as a potential site for a new boathouse. Because of the uncertainty surrounding the plans for Project Connect, PARD did not go out for solicitation for concession operations at the site. Instead, Council Resolution 20220901-085 directed the City to coordinate with TTC to extend the contract with EpicSUP until such time as the site is redeveloped. Accordingly, a contract extension was executed in early 2023.

## **Other Contract Changes**

### Zilker Zephyr/Zilker Eagle

In 2019, the Zilker Zephyr miniature train ceased operations after the tracks sustained damage from a storm. As repairs to the track would be expensive and the vendor's contract was nearing expiration, the City allowed the contract to expire. A solicitation for a new vendor was not released, as PARD staff opted to wait until the Zilker Park Vision Plan was completed so that any new solicitation could include the plan recommendations regarding the train. In February 2020, City Council passed Resolution 20200220-046, directing the City Manager to negotiate and execute an agreement with the Austin Parks Foundation (APF) to procure a new family amusement train vendor and oversee the operations of the train, with all net proceeds to be distributed to non-profit organizations operating within and around Zilker Park, until such time as the Zilker Park Vision Plan recommendations could be implemented. As of the end of FY22, APF has built the tracks and infrastructure and acquired a new train, called the Zephyr Eagle. The new tracks follow the existing track base from the train depot to Lou Neff Point. The old tracks had turned west at Lou Neff Point and continued to follow alongside Lou Neff Road. However, the erosion at the turnaround and the instability of the ground there did not allow for replacing the turnaround at that site. A new turnaround was installed at Lou Neff Point instead. The track plan set was approved through the City's general permit program. Mulch socks were used by the contractor as erosion control when the new turnaround was constructed. The opening of the concession has been delayed due to unforeseen equipment issues and is expected to be in operation by FY24.

### Zilker Café

No vendor has been operating at the site of the Zilker Café since early 2016. After the contract with the previous vendor expired, the building was extensively renovated to

address the structure's severely deteriorated condition, to meet code requirements, and to provide ADA accessibility.

In 2019, after a competitive solicitation, PARD signed a contract with a vendor to operate the concession beginning in January 2021. However, the opening of the café was delayed, first due to building permitting issues, then the COVID pandemic, and then due to the unforeseen requirement to seek a Conditional Use Permit (CUP) to authorize the sale of beer and wine at the site, as proposed by the vendor. The Austin Land Development Code requires any area designated as a public (P) district to receive approval of a conditional use site plan by the Land Use Commission for the sale of alcohol. Zilker Metropolitan Park, where Zilker Café is located, is a public (P) district. In 2021, PARD requested a CUP for the site, conducted community outreach and collected public input, as required by the CUP process. Both the Parks Board and the Planning Commission voted to deny the request, and ultimately, the CUP was not authorized. The vendor was unable to provide services during the COVID pandemic. In 2022, after several unsuccessful negotiations with the vendor to open the Café, the City made the decision to terminate the contractual relationship. Currently, there is a food truck operating at the Zilker Café site. A solicitation for a long-term concessionaire is expected to be released in May 2023.

#### Lone Star Riverboat

Two amendments to the contract with Lone Star Riverboat, Inc., were executed in FY22: one to authorize an increase in ticket prices and a second to assign a new owner and contract manager for the business.

## Concession Revenue, Payments, and Expenditures

The impact of the COVID-19 pandemic upon PARD's concessions was detailed in the annual reports for FY20 and FY21. During FY20 and FY21, when options for indoor activities were limited due to the spread of COVID, outdoor activities such as paddling and golf became much more popular. Additionally, after Butler Pitch and Putt received extensive renovations in 2021, the historic Austin golf course has reported record numbers of rounds of golf played and record revenues. In FY22, concession operations largely returned to pre-COVID state.

### Gross Sales

Figure 3 below provides gross sales generated by the Town Lake Park concessions, which totaled \$115,994,081 in FY22. In total, concession gross sales in FY22 exceeded a record \$15 million, over \$4 million more than FY21.

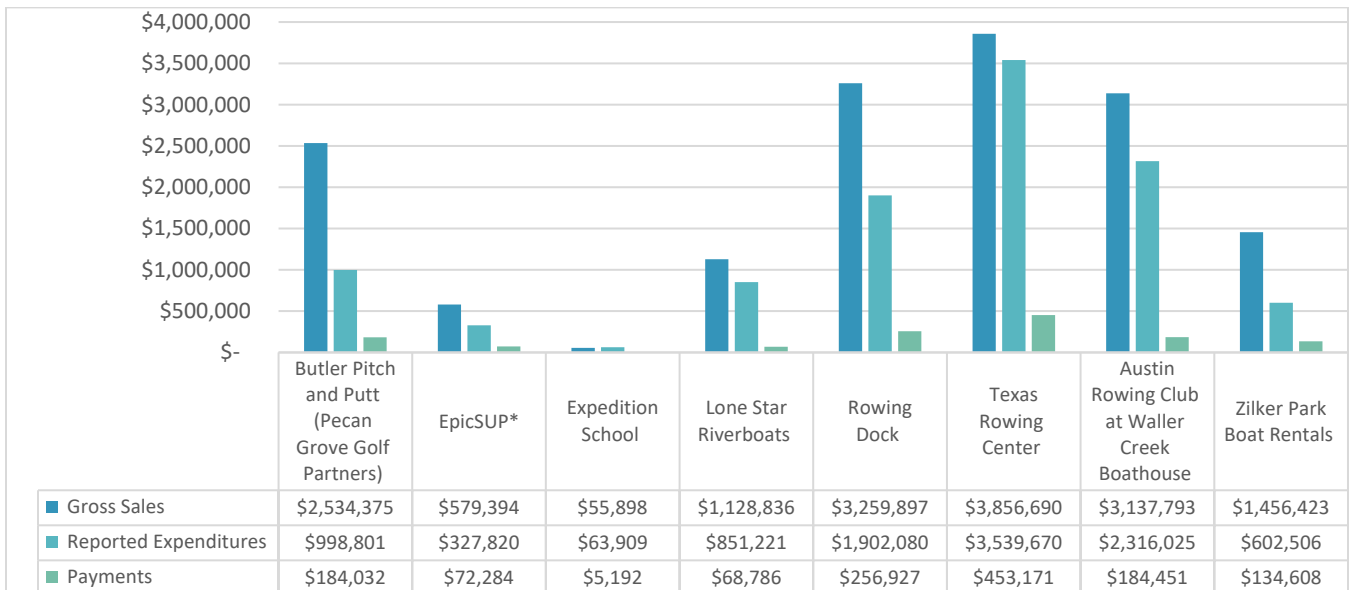


Figure 3. FY22 Gross Sales, Payments, and Expenditures, by Concession



Figure 4 below shows the increase in gross sales over the past eight years. After several years of modest growth between 2014 and 2018, and a slight dip in sales in 2020 due to the COVID-19 pandemic, the annual revenue in the past two years has nearly doubled pre-COVID levels.

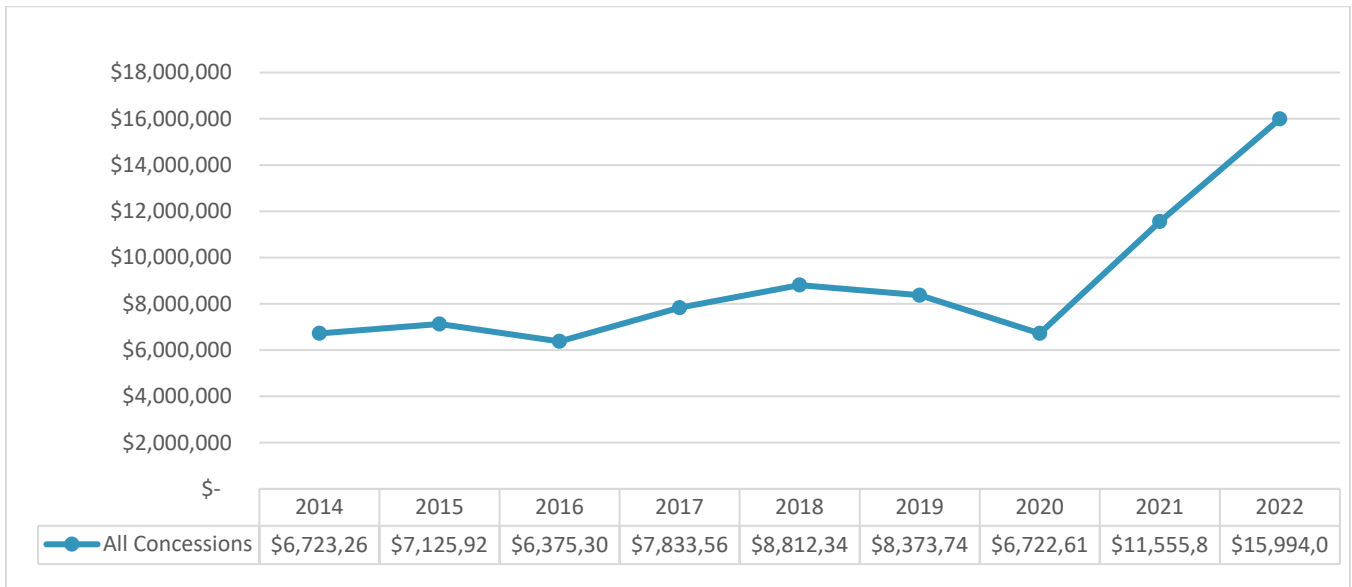


Figure 4. Total Annual Gross Sales Since FY14

**Revenue Share Payments**

The revenue share for each concession is determined by a unique formula negotiated in each individual contract. The Expedition School, Zilker Park Boat Rentals, and EpicSUP remit a percentage of gross revenue on a monthly basis, and the other concessions pay a monthly flat fee in addition to an annual lump sum payment based on total annual revenue. Tables 1 and 2 provide the revenue share formulas used for each concession. Please note that the terms “net revenue” and “gross revenue” are defined by contract as gross sales minus sales tax.

Table 1. Required Monthly Fees and Formulas for Annual Revenue Share Payments to the City, by Concession

Concession	Monthly Payment to the City	Annual Lump Sum Payment Formula
Butler Pitch & Putt	\$10,417/month	6% of annual gross revenue (gross sales minus sales tax) exceeding \$694,444
Expedition School	10% of monthly gross revenue	n/a
Lone Star Riverboat	\$1667/month	10% of annual gross revenue (gross sales minus sales tax) greater than \$200,000
Rowing Dock	\$667/month	1% of annual net revenue (gross sales minus sales tax) plus 8% of net revenue greater than \$80,000
Texas Rowing Center	\$1500/month	1% of annual net revenue (gross sales minus sales tax) plus 8% of net revenue greater than \$80,000
Waller Creek Boathouse	\$1000/month	1% of annual net revenue (gross sales minus sales tax) less than and up to \$80,000 plus 8% annual net revenue greater than \$80,000
Zilker Park Boat Rentals	10% of monthly gross revenue	n/a

Table 2. Required Monthly Fees and Formulas for Annual Revenue Share Payments to The Trail Conservancy

Concession	Monthly Payment to The Trail Conservancy	Annual Lump Sum Payment Formula
EpicSUP	13.5% of monthly gross revenue	n/a

As shown in figure 3, FY22 total payments to the City totaled just over \$1.2 million, which is nearly double the amount paid in FY21. Of the FY22 revenue, \$1 million went to the City's general fund; \$184K (from Butler Pitch and Putt) went to Golf ATX, an enterprise division of PARD; and \$72K (from EpicSUP) was paid to the Trail Conservancy.

Figure 5 below shows total revenue payments over the last eight years. (These numbers include EpicSUP's payments to The Trail Conservancy.)

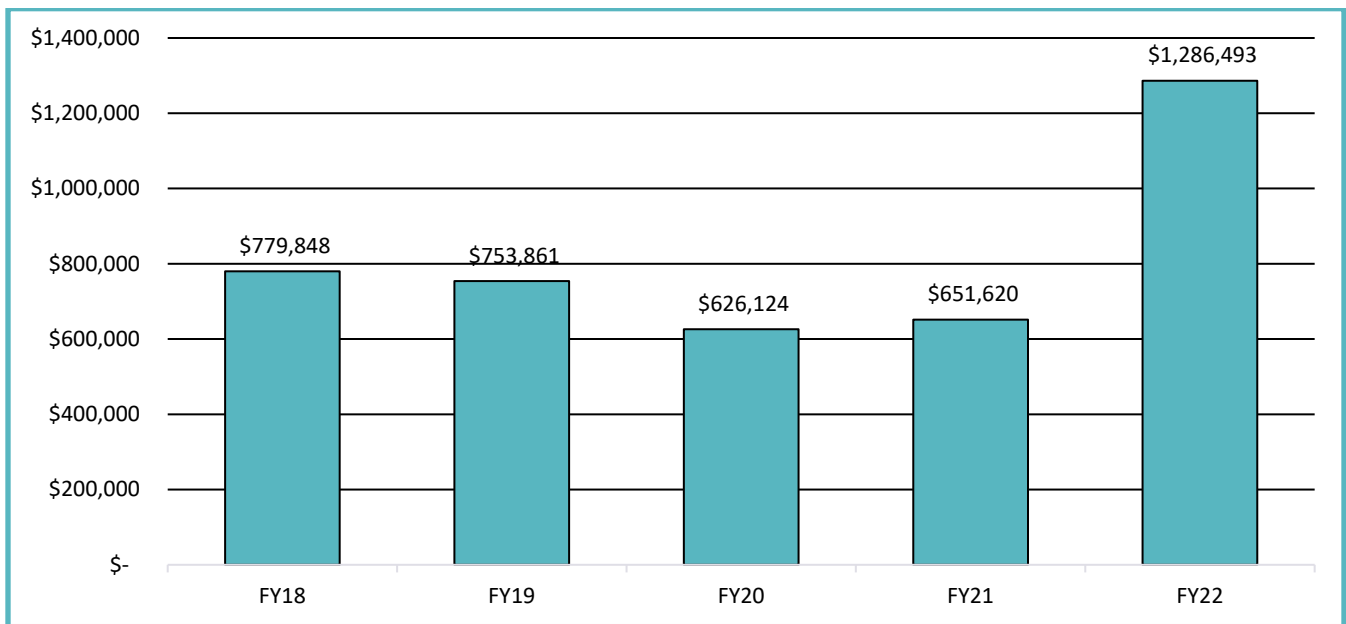


Figure 5. Total Concession Payments, FY18 -- FY22

Table 3 below shows the breakdown of revenue for each concession over this period.

Table 3. Payments FY18 -- FY22, by Concession

<b>Concession</b>	<b>FY18</b>	<b>FY19</b>	<b>FY20</b>	<b>FY21</b>	<b>FY22</b>
Butler Pitch & Putt	\$87,368	\$73,801	\$39,068	\$98,204	\$184,032
EpicSUP*	\$24,212	\$22,199	\$38,103	\$53,302	\$72,284
Expedition School	n/a	n/a	n/a	\$6,086	\$4,519
Lone Star River Boat	\$61,888	\$65,237	\$64,822	\$10,002	\$68,786
Rowing Dock	\$133,373	\$146,717	\$143,031	\$138,037	\$256,927
Texas Rowing Center	\$216,249	\$205,687	\$186,225	\$188,896	\$453,171
Waller Creek Boathouse	\$133,387	\$146,135	\$121,161	\$114,359	\$184,451
Zilker Café	closed	closed	closed	closed	closed
Zilker Park Boat Rental	\$74,536	\$62,519	\$33,401	\$91,589	\$134,608
Zilker Zephyr	\$48,835	\$34,485	\$313	closed	closed
<b>All Concessions</b>	<b>\$779,848</b>	<b>\$753,861</b>	<b>\$626,124</b>	<b>\$700,474</b>	<b>\$1,286,493</b>

\*EpicSUP payments: FY21, \$4,447 to the City, \$48,855 to TTC; FY22 \$72,284 to TTC

### **Capital Improvements**

The reported capital improvements for FY22 are listed below.

#### **Butler Pitch and Putt – \$116,887**

Installation of fencing and safety lighting, heritage tree care, turf grass replacement, upgrades to walkways, well water pump and plumbing upgrades, rainwater drainage systems repairs and upgrades, purchase of a walk-in cooler, and installation of a foundation and power hookup for the food truck location

#### **EpicSUP – \$21,000**

Dock improvements, including solar lighting

#### **Texas Rowing Center – \$57,934**

Major facility and equipment repairs, including annual wood plank replacement.

**Waller Creek Boathouse – \$25,600**

Upgrades to exterior lighting fixtures

**Public Benefit**

Many of the concession contracts include requirements for public benefit programming for underserved youth and seniors. Among these, the contract with Austin Rowing Club includes specific requirements to provide a minimum of \$40,000/year in programming for underserved youth and 10% of annual rowing revenue to financial assistance for rowing memberships, lessons, or camps. PARD's vendors typically provide benefits over and above what is required, partnering with community youth groups to provide free or discounted services and with environmental groups for lake cleanup activities. The reported charitable contributions by the Town Lake Park concessions in FY22 are summarized below.

**Austin Rowing Club\* – \$140,921**

- Provided free programming and discounts for veterans, service members, and first responders; youth and community groups such as Boys' and Girls' Club, PARD summer campers; and hosted lake clean-up events.

**EpicSUP – \$47,000**

- Hosted monthly and Earth Day lake cleanup events, donated SUPs for events for Operation Get Out and Damn That Cancer, donated gift cards to local charities, such as The Trail Conservancy, for fundraising events.



**Expedition School – \$226,610**

- Provided free guided paddle sessions to individuals with severe cognitive disabilities and individuals with visual impairments; provided discounts for economically disadvantaged schools, individuals, and families; cleaned over one ton of trash from Lady Bird Lake and two tons of trash on parkland; submitted weekly water quality test data to LCRA; partnered with global non-governmental organizations to offer free paddling to visiting scholars from around the world.

**Lone Star Riverboat – \$7,700**

- Donated free passes to local schools and nonprofits for fundraising events, provided reduced price tickets for bat watching cruises for the Education in Action summer program.

**Rowing Dock – \$383,602**

- Free equipment use for community schools and organizations; hosted nonprofit fundraising events, including Paddle for Puppies, Project Princess, and ATX Paddle Dash Kayak Race; provided direct contributions to groups, such as Texas River School, The Trail Conservancy, and Flatwater Foundation; and provided discounted rentals to active military personnel, first responders, teachers, and college students.

**Texas Rowing Center – \$267,700**

- Provided scholarships for youth rowing programs, summer camps, and adaptive programs; hosted Keep Austin Beautiful lake cleanups and other charitable paddling group events; provided gift certificates to over 500 local non-profit fundraisers; sponsorship of the Austin Parks Foundation, The Trail Conservancy,

Texas River School, and TRC High Performance, a non-profit that supports elite rowing athletes training for the Olympics and World Rowing Championships.

**Zilker Park Boat Rentals – \$9,540**

- Donated free watercraft rentals for Keep Austin Beautiful and Austin Youth River Watch lake cleanup efforts and youth camps such as Adventurers Academy, Austin Sunshine Camps, and Big Brothers Big Sisters; donated to environmental groups such as Sierra Club Austin Chapter, The Trail Conservancy, Austin Parks Foundation, and Travis County Audubon Society; donated gift certificates to schools and other non-profits for charitable fundraisers.

## **Concessions Outside of Town Lake Park**

### **Short-Term Permits**

In addition to the concessions discussed above, which operate under long-term contracts, PARD offers short-term permits for temporary concessions and commercial uses. Permits are issued for either one day or a six-month period, and the types of concessions and commercial activities that are authorized include food trucks, vending or merchandise sales, fitness trainers, performing artists, and group tour operators. Permit fees are based on the term, the use, and the type of park. For example, six-month permits are \$1,500 for metro parks and \$500 for all other parks. The total collected in FY22 from commercial use permits was \$50,425.

Details regarding the temporary concessions in Town Lake Park, including types of permits, park areas affected, and names of vendors, are included in Appendix 2.

### **Concessions at Golf Courses**

PARD also collects fees from three vendors that operate concessions at City golf courses: two are food and beverage concessions and one is a driving range. The total FY22 revenue collected from the golf concessions was \$235,848. These funds go into the Golf ATX budget.

Additionally, since February 2021, the food and beverage concession at Lions Municipal Golf Course has been operated by Save Historic MUNY District (SHMD), which contracts with a vendor for services and receives 10% of the vendor's net revenue. In FY22, SHMD received \$50,604. Per the City's contract with SHMD, the proceeds shall be used only for improvements to the golf course infrastructure or to upgrade or replace equipment.

## **Parks and Recreation Board Recommendations**

At the February 27, 2023, meeting, the Parks and Recreation Board passed a recommendation that PARD staff take the following actions with regard to current and future concession contracts:

- Include consideration to recent studies and how that can impact water quality, the environment, safety, wildlife, and outdoor recreation.
- Upon expiration of a contract on Lady Bird Lake, consider findings of environmental and capacity studies on Lady Bird Lake and consult experts.
- [Upon expiration of a contract], reevaluate the revenue sharing of that concession's contract and weigh it against recent rates and the public's ability to enjoy the park.

As mentioned elsewhere in this report, PARD has commissioned a study of Lady Bird Lake capacity that considers the recreational uses of the lake and the potential environmental and social impacts. More information on the report's findings is provided in the next section. The entire report is provided in Appendix 4.

## **Environmental Commission Recommendations**

At the March 1, 2023, meeting, the Environmental Commission passed a recommendation that PARD continue the concession contracts on Lady Bird Lake (Town Lake) Park with the following conditions:

1. Be consistent with the Environmental Commission's previous recommendations in the 2023 Annual Report, PARD staff will verify that three years of records for marine waste disposal have been maintained for any entity that pumps waste on Lady Bird Lake, and that these monthly records are included in the public record going forward.
2. PARD staff should continue to review the number of public and private watercraft that are typically on Lady Bird Lake, what the safety strategies of the City of Austin, and their ability to meet capacity.
3. PARD should continue working on consistent terms and conditions in the various contracts to the extent practicable.
4. Include the waste pump-out data in the 2021 Annual Report and future reports.
5. Provide an update on any new concessions.
6. Provide an update on unlicensed vendor activity and the actions being taken.
7. Provide information on how carrying capacity is being addressed.
8. Report on the Zilker Eagle reconstruction, track realignment, and environmental impacts to be included in the final 2022 report.

PARD's responses to these recommendations are outlined below.

### **Marine Waste Disposal**

In response to the Environmental Commission's recommendations regarding marine waste disposal since 2016, PARD's actions have been as follows:

- PARD monitors Lone Star Riverboat's monthly pump-outs by requiring copies of manifests.



- All boats must comply with the State of Texas Clean Water Certification Program requirements and other state requirements for boat design, installation, operation, waste documentation, etc.
- Austin Water's Lake Water Protection program requires permits for each excursion boat with onboard toilet facilities (marine sanitation devices) and each boat pump-out facility.
- Austin Water conducts inspections at least annually on boats and pump-out facilities.

Currently, only three excursion boats with marine sanitation devices have been permitted for use on Lady Bird Lake:

- Lone Star, operated by Lone Star Riverboat
- MV Nighthawk, operated by Capital Cruises
- MV Pride and Joy, operated by Capital Cruises

The Capital Cruise boats are launched from a private dock and thus are not under PARD's purview.

More information about the Austin Water Lake Protection Program is provided in Appendix 3.

### **Watercraft Census**

PARD tracks the number of watercrafts in each concession's inventory and has reported these numbers in the annual concession report since FY11. Table 4 records the number and type of rental craft in use at the six water recreation concessions in FY22 and the total number of boats for each of the last five years. The total FY22 inventory of rental craft, not including coaching launches, numbered 2316, which represents an increase of 392 over the previous year.

Table 4. FY22 Watercraft Inventory, by Type of Boat and Concession

Type of Boat	EpicSUP	Expedition School	Rowing Dock	Texas Rowing Center	Waller Creek Boathouse	Zilker Park Boat Rentals
Kayaks	27	39	212	212	159	68
Stand-up Paddle Boards (SUP)	125	42	365	493	165	50
Canoes	0	14	22	21	0	58
Rowing Shells	0	0	0	154	65	0
Electric Boat	0	0	0	0	15	0
Coaching Boats/Launches	0	0	0	11	10	0
<b>Totals*</b>	152	95	599	880	414	176

Fiscal Year	2018	2019	2020	2021	2022
Total Boat Inventory	1694	1597	1640	1924	2316

\*Not including coaching launches

In response to recommendations from the Parks Board and the Environmental Commission regarding lake saturation, or lake capacity, in 2022, PARD contracted with a team from Huston-Tillotson University to conduct a study of lake capacity. The team used aerial drone photography and land-based counts to estimate the number of watercrafts on the lake at specified peak and non-peak times. Using these boat counts, the study's authors estimated the boat density at certain segments on the lake. The lake census data can be found in the study (Appendix 4).

### **Lake Safety**

PARD staff began compiling peak usage time numbers in FY18, in response to the Environmental Commission's questions regarding lake capacity and safety. Table 5 provides the numbers of rentals during weeks of peak usage, as reported by the concessions. The numbers represent the total rentals by each concession during designated eight-day periods including spring break (mid-March), Memorial Day, Fourth of July, and Labor Day. Table 6 provides the total number of rentals for FY22 for each location.

Table 5: Watercraft Rented During FY22 Weeks of Peak Usage, by Concession

Holiday Week	EpicSUP	Expedition School	Rowing Dock	Texas Rowing Center	Waller Creek Boathouse	Zilker Park Boat Rentals	Totals
Spring Break	718	80	3440	3596	1221	2318	<b>11,373</b>
Memorial Day	1505	207	5616	9476	2016	4548	<b>23,368</b>
Fourth of July	1566	279	5123	8126	2248	4625	<b>20,967</b>
Labor Day	686	62	2232	3098	1361	1306	<b>8745</b>

Table 6: Total Rentals for FY22, by Concession

Type of Boat	EpicSUP	Expedition School	Rowing Dock	Texas Rowing Club	Waller Creek Boathouse	Zilker Park Boat Rentals
Canoes	0	603	9,404	4,489	0	11,013
Kayaks	9,052	1,682	48,838	39,358	24,108	28,728
SUPs	16,832	928	30,374	76,205	10,033	16,542
Electric Boats	0	0	0	0	4,785	0
<b>Totals</b>	<b>25,884</b>	<b>3,213</b>	<b>88,616</b>	<b>120,052</b>	<b>39,926</b>	<b>56,283</b>

PARD will continue to monitor the number of boats in the concessions' rental inventories and also continue to consult with Austin Police Department, Austin Fire Department rescue teams, and the Texas Parks and Wildlife Department to monitor safety conditions of the lake's users.

## **Consistency Across Concession Contracts**

Because the concessions operating in Lady Bird Lake Park typically have long-term contracts, with the initial terms five to ten years, it is difficult to ensure 100% consistency across concession contracts. Additionally, not all vendors provide the same services or operate in the same locations, so there is some variation in some of the terms and conditions. However, all the contracts are meant to be competitively solicited following the City's Central Procurement processes, so that the Request for Proposal and evaluation process is consistent for each solicitation, and each contractor is subject to standard terms and conditions applying to all city contracts. PARD staff will continue to work on consistent terms and conditions in concession contracts to the extent practicable.

The City Corporate Purchasing (CP) Office is responsible for managing the procurement of goods and services for all City of Austin operations, and this includes the marketing and advertising of solicitations. PARD's role is to provide the scope of work (SOW) and evaluation criteria to CP. PARD works closely with CP to streamline documents and improve the SOW and evaluation language as a way to encourage more vendor responses. PARD actively provides information to prospective vendors on how the procurement process works, how to register as a vendor through the vendor registration system, and how to find solicitation notices.

## **New Concessions**

An update on new concessions is provided at the beginning of this report.

## **Carrying Capacity**

The main goal of the HTU study was to define a carrying capacity for Lady Bird Lake and explore issues related to managing carrying capacity. There are several definitions of carrying capacity, including ecological, recreational, special or facility, and experiential or social. In other words, these definitions focus on how many boats can be on the lake without negatively affecting the lake ecology, recreational use, safety, or user enjoyment. The study used several different methods to gather information that would help assess the carrying capacity of Lady Bird Lake, and also compared the gathered data with target numbers from published sources. In short, the study found that these target density numbers were exceeded on some Saturdays on one area of the lake—the segment from MoPac to the South Lamar Bridge. The counts were consistent with anecdotal reports of increased density during the summers of 2020, 2021, and 2022.

However, the study concluded that more research needs to be conducted to determine what deleterious effects, if any, this occasional lake density has on the lake and its users. Specific effects that can be attributed to watercraft usage, such as a decrease in water quality or an increase in safety concerns or safety incidents, if observed, may indicate that the lake has exceeded the desired lake capacity.

## **Unlicensed Vendor Activity**

Per City Code § 8-1-71, If authorized by the director, a person may operate a food or beverage, rental, or service concession in Lady Bird Lake Park. Per City Code § 8-1-72, subject to certain restrictions, a person may operate a boating concession adjacent to Lady Bird Lake Park. The concessions listed in this report were so authorized. This report does not include information about vendors operating on private property

adjacent to Lady Bird Lake, including Capital Cruises, Live Love Paddle, and Austin Paddle Shack, which operate from the south shore east of the South Congress Bridge.

PARD is aware of a number of unlicensed vendors that operate on Lady Bird Lake. The existence of these vendors has been identified by various methods: social media advertisements and postings, and reports and sightings by licensed vendors, Park Rangers, citizens, and Austin 311. The unlicensed vendors provide access to the lake from various sites on City parkland, but they do not maintain a permanent site on the lake. Typically, their customers reserve equipment via the internet or social media platforms and the vendors transport their equipment to specific meeting points at designated times—the locations and times of distribution of craft is provided only to customers when they make their reservation. Some of the businesses only provide rental equipment, which they distribute from their trailer or van to waiting customers, and others provide guided tours on the lake. They are not available for walk-up business, like the PARD concessions, and they do not maintain a consistent presence at a particular site. In many cases, the name and owner of the unlicensed vendors is known.

These businesses are in violation of City Code, and their unlicensed activity creates several problems. The first problem is that these businesses are using public parkland maintained by the City for their own commercial gain without compensating the City for their use of these sites. PARD does not receive any revenue share from their business. In contrast, the authorized businesses pay a certain revenue share to the city in return for use of these prime sites along the lake. The unlicensed businesses also take paying customers away from licensed vendors that do pay a share of their revenue to the City. Additionally, the City's authorized vendors must adhere to certain rules and regulations regarding safe operations, insurance coverage, living wage requirements for employees, maintenance of the shoreline where they operate, environmental

guidelines, etc. However, it's unknown what regulations and guidelines these unauthorized businesses follow, as the City has no purview over their operations.

One vendor deploys craft that use battery-powered motors to reach speeds of up to 25 mph. Regulations limit the capacity of motorized craft on Lady Bird Lake to 5 horsepower. A 5 hp engine on a boat typically achieves 4-10 mph depending on lake conditions, thus this vendor is in violation not only of license requirements but also of the restriction on motorized vessels.

As part of their study, the Huston-Tillotson University team addressed unlicensed vendor activity in relation to their contribution to lake density, or the total number of boats on Lady Bird Lake. In considering whether Lady Bird Lake is approaching maximum density or lake capacity, there is no question that privately owned craft and craft rented by unlicensed vendors contribute to this density. However, as the study acknowledged, it is impossible to easily distinguish by visual inspection which boats are rented and which are privately owned. Enhanced enforcement will be needed to mitigate the safety and environmental issues caused by these unpermitted activities.

### **Zilker Eagle Updates**

The Environmental Commission also requested an update on the Zilker Eagle, specifically the reconstruction, track realignment, and environmental impacts of the train. Contract information on the Zilker Eagle is included in the section on Concession Contracts (above).



## **Appendix 1. Annual Concession Report Presentation Slides**



Austin Parks and Recreation Department

# ANNUAL CONCESSION REPORT FY22



Presented by

Maggie Stenz,

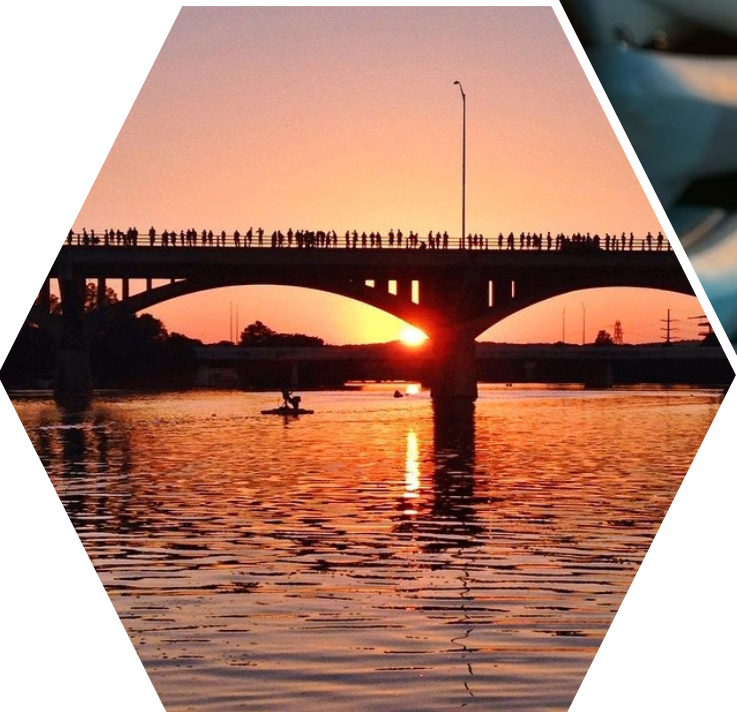
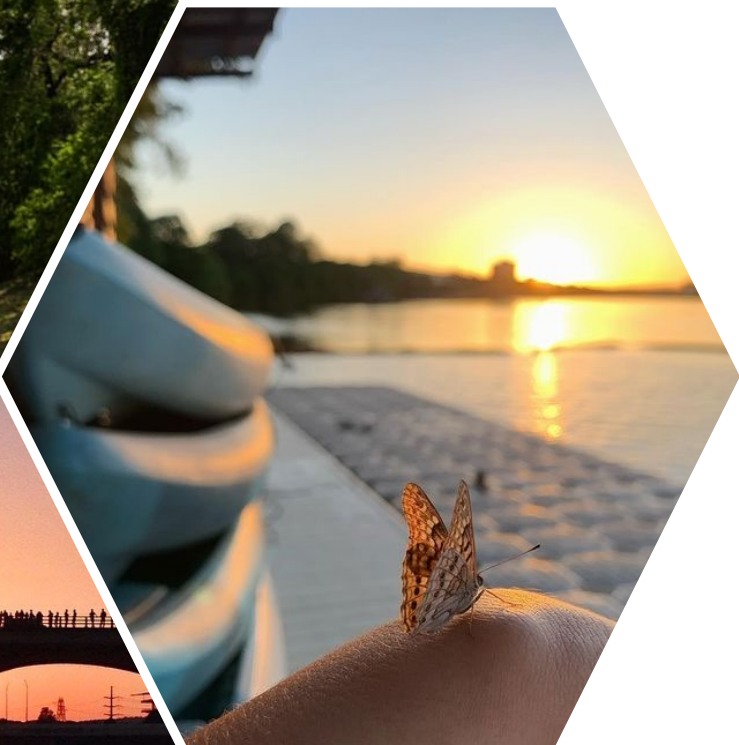
Financial Services Division

Parks and Recreation Board

February 27, 2023







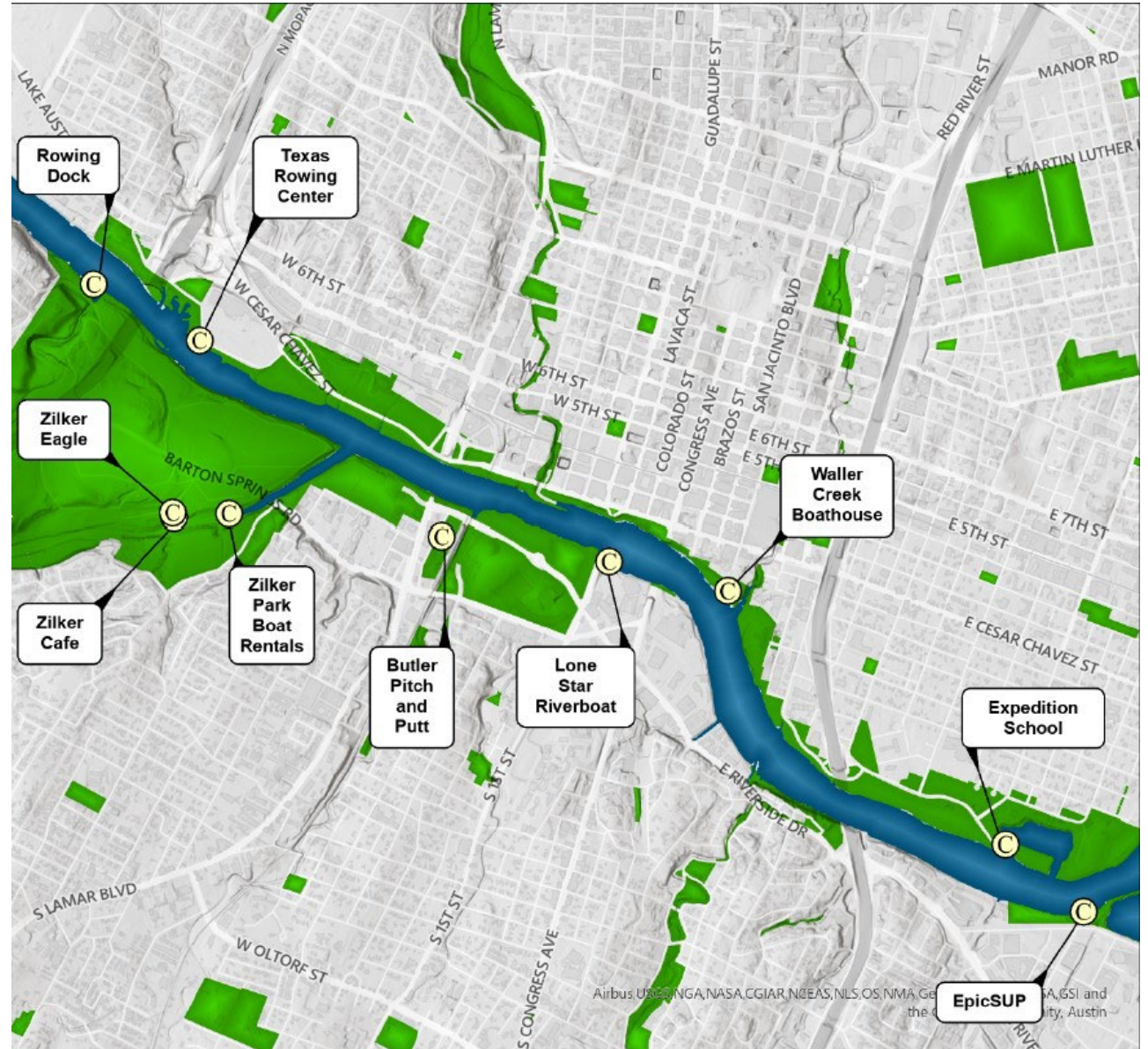
# AUSTIN CITY CODE

Austin City Code § 8-1-73 requires delivery of an annual report to the Parks and Recreation Board and the Environmental Commission providing the following information regarding concessions in Town Lake Park:

- Name and location
- Income and expenditures
- Total number of boats rented
- Environmental concerns caused by a concession

# Name and Location

- Butler Pitch and Putt
- EpicSUP
- Expedition School
- Lone Star Riverboat Cruises
- Rowing Dock
- Texas Rowing Center
- Waller Creek Boathouse (Austin Rowing Club)
- Zilker Café (temporarily closed)
- Zilker Eagle Railroad (temporarily closed)
- Zilker Park Boat Rentals



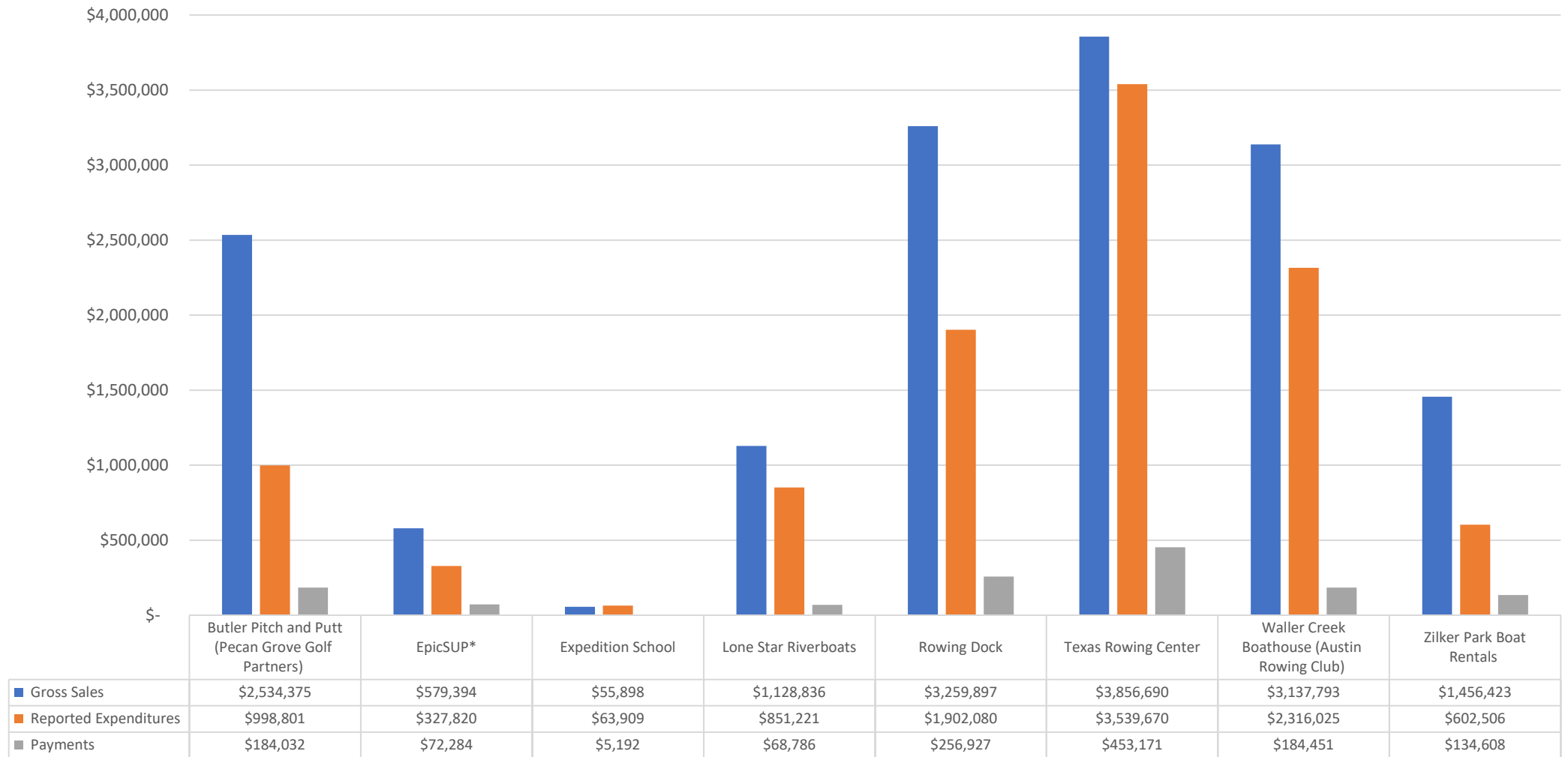
# Contract Terms

Concession	Contract Begin	Contract End	2000				2005					2010				2015				2020				2025				2030				2035				2040		
Waller Creek Boathouse	2012	2023														5		2		4																		
EpicSUP*	2013	2023														5		2		6 mo.		2																
Rowing Dock	2000	2023	2				5			5		5				5																						
Expedition School	2020	2024																		18 mo.																		
Zilker Park Boat Rentals	2006	2024								5		5				5																						
Lone Star Riverboat	2015	2025														5																						
Butler Pitch & Putt	2019	2029																																				
Texas Rowing Center	2020	2030																																				
Zilker Eagle	2021	2031																																				
Interim Period																																						
Basic Term																																						
Option Executed																																						
Option Remaining																																						
Holdover																																						

\*May 15, 2021-January 1, 2023, all revenue share payments go to The Trail Conservancy



# FY22 Gross Sales, Expenditures, and Payments



\*The Trail Conservancy received all payments by EpicSUP in FY22.

# Annual Rentals

Type of Boat/ Concession	EpicSUP	Expedition School	Rowing Dock	Texas Rowing Club	Waller Creek Boathouse	Zilker Park Boat Rentals
<b>Canoes</b>	0	603	9,404	4,489	0	11,013
<b>Kayaks</b>	9,052	1,682	48,838	39,358	24,108	28,728
<b>SUPs</b>	16,832	928	30,374	76,205	10,033	16,542
<b>Electric Boats</b>	0	0	0	0	4,785	0
<b>Totals</b>	<b>25,884</b>	<b>3,213</b>	<b>88,616</b>	<b>120,052</b>	<b>39,926</b>	<b>56,283</b>

# Environmental Concerns

Per the recommendation of the City of Austin Environmental Commission, PARD does the following:

## Marine Waste Disposal

- Maintains and makes public marine waste disposal records for Lone Star Riverboats, which operates one vessel with an onboard toilet.

## Lake Safety

- Reviews the number of public and private boats typically on lake.
- Has commissioned a study of lake capacity.

## Other Concession Considerations

- Maintains consistent terms and conditions in concessions contracts to the extent practicable.
- Provides annual updates on any new concessions, including the Seaholm Power Plant and the Zilker Metropolitan Park Vision Plan.





# Parks Board Recommendations

An aerial photograph of Austin, Texas, featuring the city skyline in the background, the Colorado River in the middle ground, and a lush green park area with a baseball field in the foreground. The image is partially obscured by a blue diagonal overlay on the left side.

Per Austin City Code, § 8-1-73

Not later than the 30th day after receipt of a report by the director of the Parks Department, the board and the Environmental Commission shall make a recommendation to Council regarding:

- Creation, continuation or termination of a concession
- The status of each existing concession
- The issuance of request for proposal for a concession under this division

## **Appendix 2. Temporary Concessions and Commercial Use Report FY22**

### **Temporary Concession Permits and Commercial Use**

Temporary concession and commercial use permits are required and issued to applicants for commercial activity needs that benefit the public's recreation experiences at approved City of Austin park locations. Permits are granted for either single-day or six-month use.

### **Revenue for Temporary Concessions and Commercial Use**

Net Revenue: \$50,425

### **Summary of Revenue for Temporary Concessions**

Temporary Concession Permits

Total Permits Issued: 36

- Six-Month Permits Total Revenue: \$41,070
  - Fee/Permit: \$500 – \$1,500
- Single-Day Permits Total Revenue: \$1,750
  - Fee/Permit: \$50 – \$100

Commercial Use Permits – Instructor-led groups (six-month permits)

Total Permits Issued: 45

- Total Revenue: \$7,605
  - Fee/Permit: \$50
  - Fee/Sound Permit: \$30
  - Fee/Attendee: \$0.45/Attendee
- Group Attendees: 11,634 participants

Performing Artist (single day)

Total Permits Issued: 0

- Fee/Permit: \$10

**Temporary Concession Permits – Six-Month and Single-Day**

- Concession permits are issued for commercial activity (vending, merchandise sales, etc.) in the park system. Six-month and single-day permits are available.

<b>Park Area</b>	<b>Vendor</b>
Zilker Park – District or Metro	Odd Pop Cannone Lady Bee's Shaved Ice Jim Jim's Water Ice Austin Scoops Top G Roasted Corn Il Panini
Town Lake – District or Metro	F'real – Milkshakes and Smoothies Mom and Pop's Natural Pops Mike's Bikes and Rentals
Northwest – District or Metro Parks	Kona Ice Sweet Frida
Northeast – District or Metro Parks	None
South – District or Metro Parks	Pawstin Barkery Sweet Frida Body Spec
Downtown – District or Metro Parks	None
Roy G. Guerrero Metro Park	None
Zilker Park Area – Other	Cannone Pretty Cute Coffee
Town Lake – Other	Jim Jim's
Northwest – Other	Austin Duck Adventures Brother Friend Sno Ride
Northeast – Other	None
South – Other	None
Downtown – Other	None

**Targeted Concessions**

- PARD invited vendors to apply for temporary concessions in parks with high pedestrian traffic through a Request for Applications (RFA) process. The following sites were targeted:
  - Zilker Metropolitan Park
  - Vic Mathias Shores at Town Lake Metro Park
    - PARD continued to test concessions serving a park purpose at Vic Mathias Shores. Recreation goods/services have shown success.

**Commercial Use – Fitness Instructors and Instructor-Led Classes**

- Commercial use permits are issued for instructor-led classes and exercise groups in the park system for two permit terms: January–June and July–December.

<b>Park Area</b>	<b>Vendor</b>
Butler Shores	Dog Training Elite – Dog Training
Zilker Park	Beat Fitness
Northwest, Walnut Creek, Garrison	Sit Means Sit – Dog Training
Edward Rendon Sr	Sky Sweat
Dick Nichols, Springwoods	Fit4Mom
Clarksville, Circle C, Ramsey, South Austin Park, Onion Creek, Northwest, Krieg Fields	Camp Gladiator
Roy G. Guerrero	ATX Sprint Squad
Walnut Creek	BLQ Fitness
Garrison	Village Fit
Davis/White Northeast	Flower of Life Yoga
Zilker	More Mindful Yoga
Zilker, Ramsey	Health by Galete

**Performing Artists – Balloon Artist and Face Painting**

- Performing artists are permitted to entertain in the parks using single day permits.
- Performing artists have not requested permits since the beginning of the COVID-19 pandemic in 2020.

## **Appendix 3. Austin Lake Water Protection Plan and Marine Waste Information**



## **Austin Water Lake Water Protection Program**

Contact: Chuck Deatherage, Supervisor, Water Protection Program, 512.972.1076,  
[Charles.Deatherage@austintexas.gov](mailto:Charles.Deatherage@austintexas.gov)

### **CITY REQUIREMENTS**

Austin Water requires excursion boats to comply with all state and federal laws. Currently, only three excursion boats with marine sanitation devices have been permitted for use on Lady Bird Lake:

- Lone Star, Lone Star Riverboat (PARD Town Lake concession)
- MV Nighthawk, Capital Cruises
- MV Pride and Joy, Capital Cruises

[City ordinance](#) (Chapter 6-5, Article 3, Division 2) governs watercraft with marine sanitation devices.

Austin Water's **Lake Water Protection Program** oversees compliance by requiring each excursion boat with an on-board toilet (marine sanitation device) and each boat pump-out facility used for removing sewage from any boat or watercraft to obtain annual permits. In each case, the owner or operator must apply for a permit and follow permit display requirements.

- [Excursion Boat with Marine Sanitation Device Permit Application](#)
- [Boat Pump-Out Facility Permit Application](#)

The ordinance authorizes the director of Austin Water to “inspect any boat, shore facility or boat pump-out facility at any reasonable time to determine compliance” with city code. Per this ordinance, Austin Water inspects each boat annually and checks for compliance with pump-out regulations. Failure to comply with any part of these rules may result in enforcement action, including fines of up to \$2,000 per violation per day.

Annual permit applications include the date of the most recent inspection, whether the applicant passed the inspection, and information about the waste removal method and provider.

### **STATE REQUIREMENTS**

All boats and boat pump-out facilities must additionally comply with [State of Texas Clean Water Certification Program](#) requirements, whether or not the requirement to obtain a permit applies. In addition, owners and operators of all boats, marinas and shore facilities must meet other requirements related to boat sewage and sanitation facilities, including those addressing design, installation, operation, discharge prohibitions, record-keeping and waste documentation.



**ILLEGIBLE OR INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED.**

This form is required in accordance with Austin City Code, Chapter 6-5, Article 3 (Watercraft, Marinas, and Shore Facilities). It must be completed by the owner or operator of any watercraft operated for compensation within the City's planning jurisdiction if the watercraft has or is required to have a marine sanitation device. See reverse side of this application for applicable rules.

**Owner/Operator Information**

Full Name: \_\_\_\_\_  
Last First M.I.

Address: \_\_\_\_\_  
Street Address

City County State Zip Code

Contact Info: (\_\_\_\_) \_\_\_\_\_ (\_\_\_\_) \_\_\_\_\_ \_\_\_\_\_  
Primary Phone Alternate Phone E-mail Address

**Vessel Information**

Identifying Info: \_\_\_\_\_ / \_\_\_\_\_  
Hull Number Texas Parks and Wildlife Registration No. & Expiration Date

Name of Vessel: \_\_\_\_\_ Marina Name (  NA ): \_\_\_\_\_

Storage Location: \_\_\_\_\_ Dock No.: \_\_\_\_\_ Slip No.: \_\_\_\_\_

Boat Description: \_\_\_\_\_ Length: \_\_\_\_\_ / \_\_\_\_\_  
Manufacturer Model Year Feet Inches

Number of Heads Number of Tanks Total Gallons of Waste Storage

Lakes Used for Boating: (check all that apply)  Lake Austin  Lake Travis  Lady Bird Lake

Marine Sanitation Device Type:  Type 1\*  Type 2\*  Type 3

\*Operating a watercraft on Austin's lakes is not allowed if the watercraft has a marine sanitation device capable of discharging treated or untreated sewage to the water. Type I and Type II MSDs must be secured in accordance with Title 30 of the Code of Federal Regulations, Part 159.

Waste Removal Method Used:  Approved On-Site Sewage Facility  Boat Pump-Out Facility  Liquid Waste Hauler

Waste Removal Facility/Service Info: \_\_\_\_\_  
Enter Location of Waste Facility Used or Name of Liquid Waste Hauling Company

Texas Clean Water Certification Decal:  Yes  No Expiration Date: \_\_\_\_\_

Texas Party Boat Operator License:  Yes  No Expiration Date: \_\_\_\_\_

***I certify that the information provided on this application is true and correct:***

\_\_\_\_\_  
Owner or Operator Print Name

\_\_\_\_\_  
Owner or Operator Signature

\_\_\_\_\_  
Date

### Office Use Only

Application Info: \_\_\_\_\_ Application Complete?  Yes  No  
Received Date

Inspection Info: \_\_\_\_\_ Inspection Passed?  Yes  No  
Date Inspector Initials

If inspection failed, describe all violations noted and required corrective actions below:

Permit Info: \_\_\_\_\_  
Permit Number Decal Number Permit Issued Date Permit Expiration Date

**Please forward the report to:**

**City of Austin  
Special Services Division  
3907 South Industrial Drive, Suite 100  
Austin, Texas 78744-1070**

**Phone: (512) 972-1060  
Fax: (512) 972-1260  
[www.austintexas.gov/boatsewage](http://www.austintexas.gov/boatsewage)**

### Applicable Regulatory Requirements for Excursion Boats

Careful attention must be paid to all applicable requirements of the Austin City Code (to view these regulations in their entirety, go to: [www.austintexas.gov/boatsewage](http://www.austintexas.gov/boatsewage)), including the following selected sections relating to excursion boats:

- From §6-5-23: "A person may not discharge sewage into the water supply."
- From §6-5-31:
  - (A) A person may not operate a watercraft on the water supply, if the watercraft has a marine sanitation device capable of discharging sewage into the water supply.
  - (B) A person may not operate a watercraft on the water supply, if the watercraft has a marine sanitation device that does not comply with all applicable local, state or federal requirements.
  - (C) A person may not operate a watercraft with one or more sleeping quarters unless the watercraft is equipped with at least one permanently installed marine toilet properly connected to a marine sanitation device.
  - (D) A person may not dispose of the contents of a marine sanitation device by any means other than: (1) discharge into a boat pump-out facility certified and permitted as required under this article; (2) discharge into an adequately-sized-on-site sewage facility permitted to receive boat sewage that is in compliance with Chapter 15-5, Article 1 (Regulation of On-Site Sewage Facilities), as applicable, and all applicable local, state, and federal regulations; or (3) collected by a liquid waste hauler that is in compliance with *Chapter 15-5, Article 2 (Liquid Waste Haulers)*, and all applicable local, state, and federal regulations.
- From §6-5-33:
  - (A) A person who operates an excursion boat with a capacity of more than twenty passengers shall have at least one marine sanitation device on the watercraft for passengers unless the excursion boat is used exclusively for cruises lasting no more than one hour that do not include food or alcoholic beverage service.
  - (B) A person who owns or operates an excursion boat with a marine sanitation device who disposes of any sewage or waste derived from sewage by using a liquid waste hauler shall keep and make available for inspection and copying by the director all waste transport and disposal records for at least three years from the date the record is created.
  - (C) A person who owns or operates an excursion boat with a marine sanitation device shall submit periodic reports and records documenting the volumes, dates, and frequency of waste removal and disposal as may be requested by the director.
- From § 6-5-35:
  - (E) A permit is not required for: (1) the owner or operator of a boat pump-out facility that is part of a marina located on or adjacent to Lake Travis that is operating under a permit from the Lower Colorado River Authority; or (2) the owner or operator of an excursion boat operated exclusively on Lake Travis at a marina facility subject to subsection (E)(1), and that is certified as required under Title 30 Texas Administrative Code Chapter 321, Subchapter A (Boat Sewage Disposal).
- From § 6-5-36:
  - (A) A person who violates a provision of this article commits an offense subject to the penalty prescribed by Section 1-1-99 (Offenses; General Penalty).
  - (B) An offense under this article is subject to the fine applicable for an offense that relates to public health and sanitation.
  - (C) Each occurrence of a prohibited act, and each day that an offense continues, is a separate offense.



## Lone Star Riverboat Cruises

### *Lone Star Pump-outs: January 2020-December 2022*

2022	2021	2020
March 1	March 1	February 7
March 22	April 13	February 25
April 4	May 20	June 12
May 16	June 17	September 8
June 16	June 30	October 14
June 24	July 12	
July 7	August 13	
August 3	September 21	
September 2		
September 28		
October 25		

#### **Notes:**

*Lone Star* has two 200-gallon capacity holding tanks. Each date listed above represents one 200-gallon pump-out.

As part of contract compliance, Lone Star Riverboat provides PARD with invoices from their hauler, Sellman Enterprises, Inc. Septic Services, and manifests from City of Austin Water Utility manifests for hauled liquid waste. All manifests going back to 2015 are on file.



<b>Generator Info</b>	Name: <u>LONE STAR RIVER BOAT</u>	Address: <u>101 S. 1<sup>ST</sup> ST.</u>		
	City: <u>AUSTIN</u>	State: <u>TX</u>	Zip Code: <u>78704</u>	Phone: <u>9046078448</u>
	Indicate the waste type (must check one) and, if applicable, the interceptor (or trap) capacity:			
	<input type="checkbox"/> Wastewater Treatment Plant Sludge <input type="checkbox"/> Food Service Grease Interceptor (or Trap) Capacity = _____ (gal.) <input type="checkbox"/> Chemical Toilet <input checked="" type="checkbox"/> Septic Tank / Sewage Holding Tank Capacity = _____ (gal.) <input type="checkbox"/> Wastewater from Sanitary Sewer System <input type="checkbox"/> Grit / Mud / Oil / Lint Interceptor (or Trap) Capacity = _____ (gal.) <input type="checkbox"/> Other - Specify Source and Type of Waste: _____			
Gallons Removed: <u>200</u>		Date Removed: <u>2720</u>		
As the representative for the generator of this waste, I certify that the information provided is true and correct; and that this waste is to be transported to a facility authorized by the Texas Commission on Environmental Quality (TCEQ) to receive these wastes.				
Printed Name: <u>DJ CORNWELL</u>		Signature: <u>[Signature]</u>		
<b>Transporter Info</b>	Business Name: <u>SELLMAN</u>	Address: <u>154 KELLY SMITH</u>		
	City: <u>BUDA</u>	State: <u>TX</u>	Zip Code: <u>78610</u>	Phone: <u>5127120002</u>
	TCEQ Registration No.: <u>21565</u>	Vehicle License No.: <u>4BX2679</u>		
	COA Permit No.: <u>77</u>	Gallons Transported: <u>200</u>	Date Relinquished: <u>2720</u>	
	As the representative for the transporter of this waste, I certify that the information provided is true and correct; and that this waste was collected in accordance with Title 30 of the Texas Administrative Code, Chapter 312, Subchapter G and the Austin City Code.			
Printed Name: <u>TERRY TOLLUS</u>		Signature: <u>[Signature]</u>		

Note: This section is for...

**SELLMAN ENTERPRISES, INC.**  
**SEPTIC SERVICES**  
*Septic Pumping and Repairs*

INVOICE # 32344  
DATE: 2720

P.O. BOX 1377, BUDA, TX 78610  
AUSTIN  
SOUTH 512-445-5489  
NORTH 512-837-1199  
512-312-0002  
FAX 512-295-5534



BILL TO: MICHAEL R REARCE  
5446 3209 5728 4050  
904 607 8448

LOCATION: LONE STAR RIVER BOAT  
AUSTIN 78763

DESCRIPTION	SOLD BY	CASH	CHECK	CHARGE	ON ACCOUNT	P.O. #	TOTAL TIME:	AMOUNT
PUMP SEPTIC TANK							<u>145</u>	<u>225</u>
EXT PUMPING TIME								<u>225</u>
DIGGING TIME								
EXT GALLONS								
SYSTEM TYPE								
TANK SIZE								
AEROBIC BRAND								
OTHER								
SERVICE CALL								
PROPER WATER LEVEL								
INLET TEE OK								
OUTLET TEE OK								
TANK DAMAGE								
SYSTEM FAILURE								
COMMENTS: <u>200 GAL HOURS</u>								
SUB TOTAL								<u>225</u>
TAX								<u>18.57</u>
TOTAL								<u>243.57</u>

TERMS: Due Upon Receipt  
\$25.00 RETURN CHECK FEE

SIGNATURE: [Signature] I hereby acknowledge and accept satisfactory work as described above.

Thank You



City of Austin / Travis County  
Austin Water Utility  
Manifest / Trip Ticket for Hauled Liquid Waste

Number: **1091746**

<b>Generator Info</b>	Name: <u>LONESTAR RIVER BOAT</u>		Address: <u>101 S 1ST ST</u>	
	City: <u>AUSTIN</u>	State: <u>TX</u>	Zip Code: <u>78704</u>	Phone: <u>512 327 1388</u>
	Indicate the waste type (must check one) and, if applicable, the interceptor (or trap) capacity:			
	<input type="checkbox"/> Wastewater Treatment Plant Sludge		<input checked="" type="checkbox"/> Food Service Grease Interceptor (or Trap) Capacity = _____ (gal.)	
<input type="checkbox"/> Chemical Toilet		<input checked="" type="checkbox"/> Septic Tank / Sewage Holding Tank Capacity = _____ (gal.)		
<input type="checkbox"/> Wastewater from Sanitary Sewer System		<input type="checkbox"/> Grit / Mud / Oil / Lint Interceptor (or Trap) Capacity = _____ (gal.)		
<input type="checkbox"/> Other - Specify Source and Type of Waste: _____				
Gallons Removed: <u>200</u>		Date Removed: <u>2 25 20</u>		
As the representative for the generator of this waste, I certify that the information provided is true and correct; and that this waste is to be transported to a facility authorized by the Texas Commission on Environmental Quality (TCEQ) to receive these wastes.				
Printed Name: <u>CHRIS LEACH</u>		Signature: <u>[Signature]</u>		
<b>Transporter Info</b>	Business Name: <u>SELLMAN</u>		Address: <u>454 KELLY SMITH</u>	
	City: <u>BUDA</u>	State: <u>TX</u>	Zip Code: <u>78610</u>	Phone: <u>512 312 0002</u>
	TCEQ Registration No.: <u>21565</u>		Vehicle License No.: <u>K3X2239</u>	
	COA Permit No.: <u>73</u>	Gallons Transported: <u>200</u>	Date Relinquished: _____	
As the representative for the transporter of this waste, I certify that the information provided is true and correct; and that this waste was collected in accordance with Title 30 of the Texas Administrative Code, Chapter 312, Subchapter G and the Austin City Code.				
Printed Name: <u>TERRY TUCKER</u>		Signature: <u>[Signature]</u>		
<b>Note:</b> This section is for documenting transfers of wastes between vehicles operating under the same TCEQ Registration Number. The transfer of waste to any secondary transporter must be at a Type V facility that is either permitted by the TCEQ or approved by the City of Austin.				

**SELLMAN ENTERPRISES, INC.**  
**SEPTIC SERVICES**  
*Septic Pumping and Repairs*

INVOICE # **32961**  
DATE: 2 25 20



P.O. BOX 1377, BUDA, TX 78610  
AUSTIN  
SOUTH 512-445-5489 BUDA 512-312-0002  
NORTH 512-837-1199 FAX 512-295-6534  
MICHAEL K PERALICE  
BILL TO:  
5466 3209 5723 4050  
McKIP 11/23 (894)  
512 327 1388

LOCATION:  
LONESTAR RIVER BOAT  
101 S 1ST ST  
AUSTIN

TIME IN:	TIME OUT:	TOTAL TIME:	DESCRIPTION	AMOUNT
<u>1:15</u>	<u>2:00</u>		PUMP SEPTIC TANK	<u>225</u>
			EXT PUMPING TIME	
			DIGGING TIME	
			EXT GALLONS	
			SYSTEM TYPE	
			TANK SIZE	
			AEROBIC BRAND	
			OTHER	
			SERVICE CALL	
			PROPER WATER LEVEL	
			INLET TEE OK	
			OUTLET TEE OK	
			TANK DAMAGE	
			SYSTEM FAILURE	
			COMMENTS: <u>200 GAL HOLDING</u>	
			SUB TOTAL	<u>225.00</u>
			TAX	<u>18.57</u>
			TOTAL	<u>243.57</u>

TERMS: Due Upon Receipt  
SIGNATURE: [Signature]  
I hereby acknowledge and accept satisfactory work as described above.

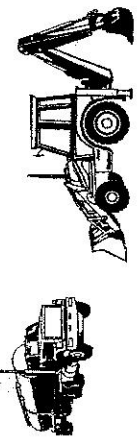
Thank You  
\$25.00 RETURN CHECK FEE



Generator Info	Name: <b>LONESTAR RIVER BOAT</b>	Address: <b>10151<sup>ST</sup> ST</b>		
	City: <b>AUSTIN</b>	State: <b>TX</b>	Zip Code: <b>78701</b>	Phone: <b>512 327 1388</b>
	Indicate the waste type (must check one) and, if applicable, the interceptor (or trap) capacity:			
	<input type="checkbox"/> Wastewater Treatment Plant Sludge <input type="checkbox"/> Food Service Grease Interceptor (or Trap) Capacity = _____ (gal.) <input type="checkbox"/> Chemical Toilet <input checked="" type="checkbox"/> Septic Tank / Sewage Holding Tank Capacity = _____ (gal.) <input type="checkbox"/> Wastewater from Sanitary Sewer System <input type="checkbox"/> Grit / Mud / Oil / Lint Interceptor (or Trap) Capacity = _____ (gal.) <input type="checkbox"/> Other - Specify Source and Type of Waste: _____			
Gallons Removed: <b>200</b> <i>Chris Leach</i>		Date Removed: <b>6/2/20</b>		
As the representative for the generator of this waste, I certify that the information provided is true and correct; and that this waste is to be transported to a facility authorized by the Texas Commission on Environmental Quality (TCEQ) to receive these wastes.				
Printed Name: <b>Chris Leach</b>		Signature: <i>Chris Leach</i>		
Transporter Info	Business Name: <b>SELLMAN</b>	Address: <b>454 KELLY SMITH</b>		
	City: <b>BUDA</b>	State: <b>TX</b>	Zip Code: <b>78610</b>	Phone: <b>512 312 0002</b>
	TCEQ Registration No.: <b>21565</b>	Vehicle License No.: <b>KBX2639</b>		
	COA Permit No.: <b>73</b>	Gallons Transported: <b>200</b>	Date Relinquished: <b>1</b>	
As the representative for the transporter of this waste, I certify that the information provided is true and correct; and that this waste was collected in accordance with Title 30 of the Texas Administrative Code, Chapter 312, Subchapter G and the Austin City Code.				
Printed Name: <b>TERRY TULLOS</b>		Signature: <i>Terry Tullus</i>		

Note: This section is for documenting transfers of wastes between vehicles operating under the same TCEQ Registration Number. The transfer of waste to any secondary transporter must be at a Type V facility that is either permitted by or registered with the TCEQ.

**S. LMAN ENTERPRISES, INC.** INVOICE # **32723**  
**SEPTIC SERVICES**  
Septic Pumping and Repairs



P.O. BOX 1377, BUDA, TX 78610  
AUSTIN BUDA  
SOUTH 512-445-5489 512-312-0002  
NORTH 512-837-1199 FAX 512-295-5534

LOCATION: *10151<sup>ST</sup> ST*  
BILL TO: *MICHAEL K PERCE*  
*5466 3209 578405*  
*MC ASP 1123 (634)*  
*91227107*

TIME IN: *2:00* TIME OUT: *2:15* TOTAL TIME: *15*

SOLD BY	CASH	CHECK	CHARGE	ON ACCOUNT	P.O. #	DESCRIPTION	AMOUNT
						PUMP SEPTIC TANK	= 200
						EXT PUMPING TIME	=
						DIGGING TIME	=
						EXT GALLONS	=
						SYSTEM TYPE CONV. <input type="checkbox"/> PPD <input type="checkbox"/>	=
						TANK SIZE GAL @	=
						AEROBIC BRAND	=
						OTHER	=
						SERVICE CALL	=
						PROPER WATER LEVEL ( ) YES ( ) NO	
						INLET TEE OK ( ) YES ( ) NO	
						OUTLET TEE OK ( ) YES ( ) NO	
						TANK DAMAGE ( ) YES ( ) NO	
						SYSTEM FAILURE ( ) YES ( ) NO	
						COMMENTS <i>200 GAL - 11/11/20</i>	
						SUB TOTAL	<i>200</i>
						TAX	<i>11.31</i>
						TOTAL	<i>211.31</i>

TERMS: Due Upon Receipt  
SIGNATURE: *Chris Leach*  
Thank You  
\$25.00 RETURN CHECK FEE

SIGNATURE: I hereby acknowledge and accept satisfactory work as described above.



**SELLMAN ENTERPRISES, INC.**  
**SEPTIC SERVICES**  
*Septic Pumping and Repairs*

P.O. BOX 1377, BUDA, TX 78610  
 AUSTIN  
 SOUTH 512-445-5489  
 NORTH 512-837-1199  
 FAX 512-295-5534

**BILL TO:**

MICHAEL PEARCE  
 5466 3209 51728 4050  
 210 EXP 11/23 (894)



**LOCATION:**

LOWE STAN RIVER BOAT  
 AUSTIN 78763

INVOICE # **32688**  
 DATE: **9/18/20**

TIME IN: \_\_\_\_\_ TIME OUT: \_\_\_\_\_  
 SOLD BY: \_\_\_\_\_ TOTAL TIME: \_\_\_\_\_

DESCRIPTION	CASH	CHECK	CHARGE	ON ACCOUNT	P.O. #	AMOUNT
PUMP SEPTIC TANK						
EXT PUMPING TIME						225.00
DIGGING TIME						
EXT GALLONS						
SYSTEM TYPE						
TANK SIZE						
AEROBIC BRAND						
OTHER						
SERVICE CALL						
PROPER WATER LEVEL						
INLET TEE OK						
OUTLET TEE OK						
TANK DAMAGE						
SYSTEM FAILURE						
COMMENTS						
SUB TOTAL						225.00
TAX						18.57
TOTAL						243.57

TERMS: Due Upon Receipt

*Thank You*

**\$25.00 RETURN CHECK FEE**

City of Austin / Travis County  
 Austin Water Utility  
**Manifest / Trip Ticket for Hauled Liquid Waste**

Number: **1112088**

Name: **LOWE STAN RIVER BOAT** Address: **101 S 1ST ST**  
 City: **AUSTIN** State: **TX** Zip Code: **78704** Phone: **512-327-1588**

**Generator Info**

Indicate the waste type (must check one) and, if applicable, the interceptor (or trap) capacity:  
 Wastewater Treatment Plant Sludge  
 Chemical Toilet  
 Wastewater from Sanitary Sewer System  
 Other - Specify Source and Type of Waste: \_\_\_\_\_  
 Food Service Grease Interceptor (or Trap) Capacity = \_\_\_\_\_ (ga)  
 Septic Tank / Sewage Holding Tank Capacity = \_\_\_\_\_ (ga)  
 Grit / Mud / Oil / Lint Interceptor (or Trap) Capacity = \_\_\_\_\_ (ga)

Gallons Removed: **200** Date Removed: **9/18/20**

As the representative for the generator of this waste, I certify that the information provided is true and correct; and that this waste is to be transported to a facility authorized by the Texas Commission on Environmental Quality (TCEQ) to receive these wastes.

Printed Name: **CHRIS LEACH** Signature: *Chris Leach*

**Transporter Info**

Business Name: **SELLMAN** Address: **454 KEECY SMITH**

City: **BUDA** State: **TX** Zip Code: **78610** Phone: **512-312-0002**

TCEQ Registration No.: **21565** Vehicle License No.: **R13X 2639**

COA Permit No.: **73** Gallons Transported: **200** Date Relinquished: **9/18/20**

As the representative for the transporter of this waste, I certify that the information provided is true and correct; and that this waste was collected in accordance with Title 30 of the Texas Administrative Code, Chapter 312, Subchapter G and the Austin City Code.

Printed Name: **TERRY TUCKER** Signature: *Terry Tucker*

This section is for documenting transfers of wastes between vehicles operating under the same TCEQ Registration Number. The transfer of waste



**SELLMAN ENTERPRISES, INC.**  
**SEPTIC SERVICES**  
*Septic Pumping and Repairs*

P.O. BOX 1377, BUDA, TX 78610  
 AUSTIN  
 SOUTH 512-445-5489  
 NORTH 512-887-1199  
 BUDA  
 512-312-0002  
 FAX 512-295-5534



BILL TO:

LOCATION:

INVOICE # 34497

DATE:

TIME IN: 1:00 TIME OUT: 2:00 TOTAL TIME: 1:00

SOLD BY	CASH	CHECK	CHARGE	ON ACCOUNT	P.O. #	DESCRIPTION	AMOUNT
						PUMP SEPTIC TANK	
						EXT PUMPING TIME HRS @	
						DIGGING TIME HRS @	
						EXT GALLONS GAL @	
						SYSTEM TYPE CONV. <input type="checkbox"/> LPD <input type="checkbox"/>	
						TANK SIZE GAL @	
						AEROBIC BRAND	
						OTHER	
						SERVICE CALL	
						PROPER WATER LEVEL ( ) YES ( ) NO	
						INLET TEE OK ( ) YES ( ) NO	
						OUTLET TEE OK ( ) YES ( ) NO	
						TANK DAMAGE ( ) YES ( ) NO	
						SYSTEM FAILURE ( ) YES ( ) NO	
						COMMENTS	
						SUB TOTAL	
						TAX	
						TOTAL	

Thank You

\$25.00 RETURN CHECK FEE

TERMS: Due Upon Receipt

X

SIGNATURE: I hereby acknowledge and accept satisfactory work as described above.

City of Austin / Travis County  
 Austin Water

**Manifest / Trip Ticket for Hauled Liquid Wastes**

Number: 1129932

Generator Name: LONGHORN ALUM BOAT Address: 161 9195 ST  
 City: AUSTIN State: TX Zip Code: 78704 Phone: 512 327 1358

Generator Info

1. Indicate the waste type (check one) and, if applicable, the tank, interceptor or trap capacity:
- Chemical toilet / portable toilet waste
  - Wastewater from a mobile food vendor
  - Food service grease interceptor or trap waste
  - Wastewater treatment plant sludge
  - Wastewater from sanitary sewer system
  - Grit / mud / oil / lint interceptor or trap waste
  - Other - specify source and type of waste: \_\_\_\_\_ Tank, interceptor or trap capacity: \_\_\_\_\_ (gallons)
  - Septic tank / sewage holding tank waste

2. This section applies to any waste removed from food service grease interceptors or traps that are subject to Austin City Code specified pump-out frequency requirements. All food service grease interceptors or traps located within the City of Austin (COA) or located at any property that receives wastewater service from Austin Water must comply. If needed, contact Austin Water to obtain the requested COA Pollution Control Device ID.

a) Was this waste removed from a grease interceptor or trap that is subject to Austin City Code pump-out requirements?  Yes  No  
 If NO, skip b) through f) below:

b) COA Pollution Control Device ID:  unknown If ID unknown, provide device's GPS coordinates (in decimal degrees) below  
 c) Percent solids/grease (estimate): \_\_\_\_\_ Latitude: 30. Longitude: -97.  
 d) Is interceptor in good operating condition?  Yes  No If any interceptor problem or defect observed, please describe below  
 e) Is submission of pump-out report required?  Yes  No  
 f) Pump-out reporting done by:  Generator  Hauler  N/A Name or initials of person reporting: \_\_\_\_\_

Gallons Removed: 200 Date Removed: 1-14-20

As the representative for the generator of this waste, I certify that the information provided is true and correct; and that this waste is to be transported to a facility authorized by the Texas Commission on Environmental Quality (TCEQ) to receive these wastes.

Printed Name: CHRIS LEACH Signature: Chris Leach

Hauler Info

Hauler Business Name: SELLMAN Address: 454 KENT SMITH  
 City: BUDA State: TX Zip Code: 78610 Phone: 512 712 0002  
 TCEQ Registration No.: 21-50000 Vehicle License No.: 4922-39

Manifest / Trip Ticket for Hauled Liquid Wastes

Generator Info	Generator Name: <u>LONE STAR KIVER BOAT</u>		Address: <u>101 S 1ST ST</u>	
	City: <u>AUSTIN</u>	State: <u>TX</u>	Zip Code: <u>78701</u>	Phone: <u>512 327 1388</u>
	1. Indicate the waste type (check one) and, if applicable, the tank, interceptor or trap capacity: <input type="checkbox"/> Food service grease interceptor or trap waste <input type="checkbox"/> Chemical toilet / portable toilet waste <input type="checkbox"/> Wastewater from a mobile food vendor <input type="checkbox"/> Grit / mud / oil / lint interceptor or trap waste <input type="checkbox"/> Wastewater treatment plant sludge <input type="checkbox"/> Wastewater from sanitary sewer system <input checked="" type="checkbox"/> Septic tank / sewage holding tank waste <input type="checkbox"/> Other - specify source and type of waste: _____ Tank, interceptor or trap capacity: _____ (gallons)			
	2. This section applies to any waste removed from food service grease interceptors or traps that are subject to Austin City Code specified pump-out frequency requirements. All food service grease interceptors or traps located within the City of Austin (COA) or located at any property that receives wastewater service from Austin Water must comply. If needed, contact Austin Water to obtain the requested COA Pollution Control Device ID.			
	a) Was this waste removed from a grease interceptor or trap that is subject to Austin City Code pump-out requirements? <input type="checkbox"/> Yes <input type="checkbox"/> No If NO, skip b) through f) below:			
	b) COA Pollution Control Device ID: <input type="checkbox"/> unknown		If ID unknown, provide device's GPS coordinates (in decimal degrees) below	
	c) Percent solids/grease (estimate): _____		Latitude: <u>30.</u> Longitude: <u>-97.</u>	
	d) Is interceptor in good operating condition? <input type="checkbox"/> Yes <input type="checkbox"/> No		If any interceptor problem or defect observed, please describe below	
	e) Is submission of pump-out report required? <input type="checkbox"/> Yes <input type="checkbox"/> No			
	f) Pump-out reporting done by: <input type="checkbox"/> Generator <input type="checkbox"/> Hauler <input type="checkbox"/> N/A		Name or initials of person reporting: _____	
Gallons Removed: <u>200</u>		Date Removed: <u>3/1/21</u>		
As the representative for the generator of this waste, I certify that the information provided is true and correct; and that this waste is to be transported to a facility authorized by the Texas Commission on Environmental Quality (TCEQ) to receive these wastes.				
Printed Name: <u>CHRIS LEACH</u>		Signature: <u>[Signature]</u>		
Transporter Info	Hauler Business Name: <u>SEA MAN</u>		Address: <u>434 KELLY SMITH</u>	
	City: <u>BUDA</u>	State: <u>TX</u>	Zip Code: <u>78610</u>	Phone: <u>512 312 0002</u>
	TCEQ Registration No.: <u>21565</u>		Vehicle License No.: <u>KBX2639</u>	
	COA Permit No.: <u>073</u>	Gallons Transported: <u>200</u>	Date Relinquished: _____	
	As the representative for the transporter of this waste, I certify that the information provided is true and correct; and that this waste was collected in accordance with Title 30 of the Texas Administrative Code, Chapter 312, Subchapter G and the Austin City Code.			
Printed Name: <u>TERRY TULLOY</u>		Signature: <u>[Signature]</u>		
Transfer Info	<b>Note:</b> This section is for documenting transfers of wastes between vehicles operating under the same TCEQ Registration Number. The transfer of waste to any secondary transporter must be at a Type V facility that is either permitted by or registered with the TCEQ.			
	1. Was this waste transferred <b>to</b> the vehicle identified above <b>from</b> a previous transporter vehicle? <input type="checkbox"/> Yes <input type="checkbox"/> No If YES, indicate the previous Manifest / Trip Ticket No. here: _____			
	2. Is this waste being transferred <b>from</b> the vehicle identified above <b>to</b> a different (new) transporter vehicle? <input type="checkbox"/> Yes <input type="checkbox"/> No If YES, complete the section below for the vehicle <b>accepting</b> this waste, and <b>initiate a new Manifest / Trip Ticket</b> including the new "Transporter Info" and <b>the original "Generator Info"</b> (duplication of the generator's signature would not be required).			
	New Manifest / Trip Ticket No.: _____		New Vehicle License No.: _____	
	Gallons Transferred: _____		Transfer Date: _____	
	As the representative for the transporter <b>receiving this transferred waste</b> , I certify that the information provided is true and correct.			
	Printed Name: _____		Signature: _____	
Receiver Info	Facility Name: _____		Address: _____	
	City: _____	State: _____	Zip Code: _____	Phone: _____
	Check One: <input type="checkbox"/> Disposal site <input type="checkbox"/> Permitted transfer station <input type="checkbox"/> Registered transfer station		TCEQ Type I or Type V Permit No.: _____	
			OR TCEQ Registration No.: _____	
	Gallons Received: _____	Date Received: _____	Time Received: _____	
	As the representative for the facility receiving this waste, I certify that: <ul style="list-style-type: none"> <li>The TCEQ has authorized this facility to accept the waste specified under "Generator Info" above;</li> <li>The waste was received by this facility on the date and time indicated; and</li> <li>The waste has been transferred, recycled or disposed of as required by the TCEQ authorization for this facility.</li> </ul>			
Printed Name: _____		Signature: _____		



Generator Info

Generator Name: LONE STAR RIVER BOAT Address: 101 S 1ST ST  
 City: AUSTIN State: TX Zip Code: 78704 Phone: 512 327 1388

1. Indicate the waste type (check one) and, if applicable, the tank, interceptor or trap capacity:  Food service grease interceptor or trap waste  
 Chemical toilet / portable toilet waste  Wastewater from a mobile food vendor  Grit / mud / oil / lint interceptor or trap waste  
 Wastewater treatment plant sludge  Wastewater from sanitary sewer system  Septic tank / sewage holding tank waste  
 Other - specify source and type of waste: \_\_\_\_\_ Tank, interceptor or trap capacity: \_\_\_\_\_ (gallons)

2. This section applies to any waste removed from food service grease interceptors or traps that are subject to Austin City Code specified pump-out frequency requirements. All food service grease interceptors or traps located within the City of Austin (COA) or located at any property that receives wastewater service from Austin Water must comply. If needed, contact Austin Water to obtain the requested COA Pollution Control Device ID.

a) Was this waste removed from a grease interceptor or trap that is subject to Austin City Code pump-out requirements?  Yes  No  
 If NO, skip b) through f) below:

b) COA Pollution Control Device ID:  unknown If ID unknown, provide device's GPS coordinates (in decimal degrees) below  
 c) Percent solids/grease (estimate): \_\_\_\_\_ Latitude: 30. \_\_\_\_\_ Longitude: -97. \_\_\_\_\_

d) Is interceptor in good operating condition?  Yes  No If any interceptor problem or defect observed, please describe below  
 e) Is submission of pump-out report required?  Yes  No

f) Pump-out reporting done by:  Generator  Hauler  N/A Name or initials of person reporting: \_\_\_\_\_

Gallons Removed: 200 Date Removed: 4/3/21

As the representative for the generator of this waste, I certify that the information provided is true and correct, and that this waste is to be transported to a facility authorized by the Texas Commission on Environmental Quality (TCEQ) to receive these wastes.

Printed Name: Mrs. Lenech Signature: [Signature]

Transporter Info

Hauler Business Name: SELLMAN Address: 454 W 20TH  
 City: BUDA State: TX Zip Code: 78610 Phone: 512 712 0002  
 TCEQ Registration No.: 21525 Vehicle License No.: 4BX 2639  
 COA Permit No.: 73 Gallons Transported: 200 Date Relinquished: 4/3/21

As the representative for the transporter of this waste, I certify that the information provided is true and correct in accordance with Title 29 of the Texas Administrative Code.

INVOICE # **33726**

**SELLMAN ENTERPRISES, INC.**  
**SEPTIC SERVICES**  
 Septic Pumping and Repairs



P.O. BOX 1377, BUDA, TX 78610  
 AUSTIN 512-312-0002  
 SOUTH 512-445-5489  
 NORTH 512-837-1199

BILL TO: MICHAEL K PEARCE  
5406 3209 5728 4050  
MC REP (1/23/21)  
512 327 1388

LOCATION: LONE STAR RIVER BOAT  
454 W 20TH

TIME IN:	TIME OUT:	TOTAL TIME:	CASH	CHECK	CHARGE	ON ACCOUNT	P.O. #	DESCRIPTION	AMOUNT
								PUMP SEPTIC TANK	=
								EXT PUMPING TIME HRS @	=
								DIGGING TIME HRS @	=
								EXT GALLONS GAL @	=
								SYSTEM TYPE CONV. <input type="checkbox"/> LPD <input type="checkbox"/>	=
								TANK SIZE GAL @	=
								AEROBIC BRAND	=
								OTHER	=
								SERVICE CALL	( ) YES ( ) NO
								PROPER WATER LEVEL	( ) YES ( ) NO
								INLET TEE OK	( ) YES ( ) NO
								OUTLET TEE OK	( ) YES ( ) NO
								TANK DAMAGE	( ) YES ( ) NO
								SYSTEM FAILURE	( ) YES ( ) NO
COMMENTS: <u>200 GAL Hauled</u>									SUB TOTAL
									TAX
									TOTAL

Thank You

\$25.00 RETURN CHECK FEE

TERMS: Due Upon Receipt

Y [Signature]



City of Austin / Travis County  
Austin Water  
Manifest / Trip Ticket for Hauled Liquid Wastes

Number: **1144026**

Generator Name: LONG STON RIVER BOAT Address: 101515 ST  
City: AUSTIN State: TX Zip Code: 78704 Phone: 5125500831

Generator Info

1. Indicate the waste type (check one) and, if applicable, the tank, interceptor or trap capacity:  Food service grease interceptor or trap waste  
 Chemical toilet / portable toilet waste  Wastewater from a mobile food vendor  Grit / mud / oil / lint interceptor or trap waste  
 Wastewater treatment plant sludge  Wastewater from sanitary sewer system  Septic tank / sewage holding tank waste  
 Other - specify source and type of waste: \_\_\_\_\_ Tank, interceptor or trap capacity: \_\_\_\_\_ (gallons)

2. This section applies to any waste removed from food service grease interceptors or traps that are subject to Austin City Code specified pump-out frequency requirements. All food service grease interceptors or traps located within the City of Austin (COA) or located at any property that receives wastewater service from Austin Water must comply. If needed, contact Austin Water to obtain the requested COA Pollution Control Device ID.

- a) Was this waste removed from a grease interceptor or trap that is subject to Austin City Code pump-out requirements?  Yes  No  
 If NO, skip b) through f) below:

- b) COA Pollution Control Device ID:  unknown If ID unknown, provide device's GPS coordinates (in decimal degrees) below  
 c) Percent solids/grease (estimate): \_\_\_\_\_ Latitude: 30. Longitude: -97.  
 d) Is interceptor in good operating condition?  Yes  No If any interceptor problem or defect observed, please describe below  
 e) Is submission of pump-out report required?  Yes  No  
 f) Pump-out reporting done by:  Generator  Hauler  N/A Name or initials of person reporting: \_\_\_\_\_

Gallons Removed: 200 Date Removed: 5-20-21

As the representative for the generator of this waste, I certify that the information provided is true and correct; and that this waste is to be transported to a facility authorized by the Texas Commission on Environmental Quality (TCEQ) to receive these wastes.

Printed Name: Chris Leach Signature: Chris Leach

Hauler Info

Hauler Business Name: SELLMAN Address: 454 KENY SMITH  
 City: BUDA State: TX Zip Code: 78610 Phone: 512-322-0002  
 TCEQ Registration No.: 21565 Vehicle License No.: 1M21861  
 COA: \_\_\_\_\_ Gallons Transported: 200 Date Relinquished: \_\_\_\_\_

**SELLMAN ENTERPRISES, INC.**  
**SEPTIC SERVICES**  
Septic Pumping and Repairs



P.O. BOX 1377, BUDA, TX 78610  
 AUSTIN SOUTH 512-445-5489  
 NORTH 512-837-1199  
 FAX 512-295-5534

BILL TO: \_\_\_\_\_ LOCATION: \_\_\_\_\_

TIME IN: 7:40 TIME OUT: 10:25 TOTAL TIME: \_\_\_\_\_

SOLD BY	CASH	CHECK	CHARGE	ON ACCOUNT	P.O. #	DESCRIPTION	AMOUNT	
						PUMP SEPTIC TANK		
						EXT PUMPING TIME	HRS @	235.00
						DIGGING TIME	HRS @	
						EXT GALLONS	GAL @	
						SYSTEM TYPE	CONV. <input type="checkbox"/> LPD <input type="checkbox"/>	
						TANK SIZE	GAL @	
						AEROBIC BRAND		
						OTHER		
						SERVICE CALL		
						PROPER WATER LEVEL	( ) YES ( ) NO	
						INLET TEE OK	( ) YES ( ) NO	
						OUTLET TEE OK	( ) YES ( ) NO	
						TANK DAMAGE	( ) YES ( ) NO	
						SYSTEM FAILURE	( ) YES ( ) NO	
COMMENTS								
							SUB TOTAL	235.00
							TAX	13.57
							TOTAL	248.57

Thank You

**\$25.00 RETURN CHECK FEE**

TERMS: Due Upon Receipt

**X** SIGNATURE: I hereby acknowledge and accept satisfactory work as described above.



**SELLMAN ENTERPRISES, INC.**  
**SEPTIC SERVICES**

*Septic Pumping and Repairs*

P.O. BOX 1377, BUDA, TX 78610

AUSTIN  
 SOUTH 512-445-5489  
 NORTH 512-837-1199  
 BUDA  
 512-312-0002  
 FAX 512-295-5534

**BILL TO:**

MICHAEL K REACH  
 5406 3209 5718 4056  
 MC 640 11/23 (894)  
 512 327 1338  
 August 7 790 763

**LOCATION:**

LONE STAR RIVER BOAT



INVOICE # **34754**  
 DATE: **6/17/21**

TIME IN: **7:20** TIME OUT: **4:10** TOTAL TIME: **4:10**

SOLD BY	CASH	CHECK	CHARGE	ON ACCOUNT	P.O. #	DESCRIPTION	AMOUNT	
						PUMP SEPTIC TANK	=	225
						EXT PUMPING TIME	=	
						DIGGING TIME	=	
						EXT GALLONS	=	
						SYSTEM TYPE CONV. <input type="checkbox"/> LPD <input type="checkbox"/>	=	
						TANK SIZE GAL @	=	
						AEROBIC BRAND	=	
						OTHER	=	
						SERVICE CALL	=	
						PROPER WATER LEVEL ( ) YES ( ) NO		
						INLET TEE OK ( ) YES ( ) NO		
						OUTLET TEE OK ( ) YES ( ) NO		
						TANK DAMAGE ( ) YES ( ) NO		
						SYSTEM FAILURE ( ) YES ( ) NO		
COMMENTS							SUB TOTAL	225.00
							TAX	18.57
							TOTAL	243.57

*Thank You*

TERMS: Due Upon Receipt

\$25.00 RETURN CHECK FEE

SIGNATURE: I hereby acknowledge and accept satisfactory work as described above.

Generator Info

City of Austin / Travis County  
 Austin Water  
**Manifest / Trip Ticket for Hauled Liquid Wastes** Number: **1144064**

Generator Name: **LONE STAR RIVER BOAT** Address: **101 S 1ST**  
 City: **AUSTIN** State: **TX** Zip Code: **78704** Phone: **512 327 1388**

1. Indicate the waste type (check one) and, if applicable, the tank, interceptor or trap capacity:  
 Food service grease interceptor or trap waste  
 Chemical toilet / portable toilet waste  Wastewater from a mobile food vendor  Grit / mud / oil / lint interceptor or trap waste  
 Wastewater treatment plant sludge  Wastewater from sanitary sewer system  Septic tank / sewage holding tank waste  
 Other - specify source and type of waste: \_\_\_\_\_ Tank, interceptor or trap capacity: \_\_\_\_\_ (gallons)

2. This section applies to any waste removed from food service grease interceptors or traps that are subject to Austin City Code specified pump-out frequency requirements. All food service grease interceptors or traps located within the City of Austin (COA) or located at any property that receives wastewater service from Austin Water must comply. If needed, contact Austin Water to obtain the requested COA Pollution Control Device ID.

a) Was this waste removed from a grease interceptor or trap that is subject to Austin City Code pump-out requirements?  Yes  No  
 If NO, skip b) through f) below:

b) COA Pollution Control Device ID:  unknown If ID unknown, provide device's GPS coordinates (in decimal degrees) below  
 Latitude: **30.** Longitude: **-97.**

c) Percent solids/grease (estimate): \_\_\_\_\_

d) Is interceptor in good operating condition?  Yes  No If any interceptor problem or defect observed, please describe below

e) Is submission of pump-out report required?  Yes  No

f) Pump-out reporting done by:  Generator  Hauler  N/A Name or initials of person reporting: \_\_\_\_\_

Gallons Removed: **200 GAL** Date Removed: **6/17/21**

As the representative for the generator of this waste, I certify that the information provided is true and correct; and that this waste is to be transported to a facility authorized by the Texas Commission on Environmental Quality (TCEQ) to receive these wastes.

Printed Name: **CHRIS REACH** Signature: *Chris Reach*

Hauler Business Name: **FEARMAN** Address: **454 KELLY SMITH**  
 City: **BUDA** State: **TX** Zip Code: **78610** Phone: **512/3120007**  
 TCEQ Registration No.: **21565** Vehicle License No.: **10421861**  
 COA Permit No.: **27** Gallons Transported: **200** Date Relinquished: **6/21**

Hauler Info



City of Austin / Travis County  
Austin Water  
Manifest / Trip Ticket for Hauled Liquid Wastes

Number: **1163352**

**Generator Info**

Generator Name: LONGSTAR RIVER BOAT Address: 101 S 1ST ST  
 City: AUSTIN State: TX Zip Code: 78704 Phone: 512 327 1388

1. Indicate the waste type (check one) and, if applicable, the tank, interceptor or trap capacity:  
 Food service grease interceptor or trap waste  
 Chemical toilet / portable toilet waste  Wastewater from a mobile food vendor  Grit / mud / oil / lint interceptor or trap waste  
 Wastewater treatment plant sludge  Wastewater from sanitary sewer system  Septic tank / sewage holding tank waste  
 Other - specify source and type of waste: \_\_\_\_\_ Tank, interceptor or trap capacity: \_\_\_\_\_ (gallons)

2. This section applies to any waste removed from food service grease interceptors or traps that are subject to Austin City Code specified pump-out frequency requirements. All food service grease interceptors or traps located within the City of Austin (COA) or located at any property that receives wastewater service from Austin Water must comply. If needed, contact Austin Water to obtain the requested COA Pollution Control Device ID.

a) Was this waste removed from a grease interceptor or trap that is subject to Austin City Code pump-out requirements?  Yes  No  
 If NO, skip b) through f) below:

b) COA Pollution Control Device ID:  unknown If ID unknown, provide device's GPS coordinates (in decimal degrees) below  
 c) Percent solids/grease (estimate): \_\_\_\_\_ Latitude: 30. \_\_\_\_\_ Longitude: -97. \_\_\_\_\_  
 d) Is interceptor in good operating condition?  Yes  No If any interceptor problem or defect observed, please describe below  
 e) Is submission of pump-out report required?  Yes  No  
 f) Pump-out reporting done by:  Generator  Hauler  N/A Name or initials of person reporting: \_\_\_\_\_

Gallons Removed: 200 Date Removed: 6 30 21

As the representative for the generator of this waste, I certify that the information provided is true and correct; and that this waste is to be transported to a facility authorized by the Texas Commission on Environmental Quality (TCEQ) to receive these wastes.

Printed Name: Chris Beech Signature: [Signature]

Business Name: SELLMAN Address: 954 KELLY SMITH  
 Zip Code: 78610 Phone: 512 312 0002

**SELLMAN ENTERPRISES, INC.**  
**SEPTIC SERVICES**  
 Septic Pumping and Repairs

P.O. BOX 1377, BUDA, TX 78610  
 AUSTIN  
 SOUTH 512-445-5489  
 NORTH 512-837-1199  
 BUDA  
 512-312-0002  
 FAX 512-295-5534

**BILL TO:** MICHAEL & DEARKE  
 5406 7109 5228 4055  
 MC EXP 11/23 (594)  
 512 222 1335  
 LOCATION: LONGSTAR RIVER BOAT  
 Austin 78703

DATE: 6 30 21 INVOICE # 34707

TIME IN: 2 20 TIME OUT: 2 50 TOTAL TIME: \_\_\_\_\_  
 SOLD BY: [Signature] CASH CHECK CHARGE ON ACCOUNT P.O. #

DESCRIPTION	AMOUNT
PUMP SEPTIC TANK	
EXT PUMPING TIME	
DIGGING TIME	
EXT GALLONS	
SYSTEM TYPE	
TANK SIZE	
AEROBIC BRAND	
OTHER	
SERVICE CALL	
PROPER WATER LEVEL	
INLET TEE OK	
OUTLET TEE OK	
TANK DAMAGE	
SYSTEM FAILURE	
COMMENTS	
SUB TOTAL	
TAX	
TOTAL	

TERMS: Due Upon Receipt  
 SIGNATURE: I hereby acknowledge and accept satisfactory work as described above.  
 \$25.00 RETURN CHECK FEE  
 Thank You



City of Austin / Travis County  
Austin Water  
**Manifest / Trip Ticket for Hauled Liquid Wastes**

Number: **1163366**

**Generator Name:** LOWESTAR RIVER BOAT **Address:** 101 W. ST  
**City:** AUSTIN **State:** TX **Zip Code:** 78701 **Phone:** 512 3271388

1. Indicate the waste type (check one) and, if applicable, the tank, interceptor or trap capacity:  
 Food service grease interceptor or trap waste  
 Chemical toilet / portable toilet waste  Wastewater from a mobile food vendor  Grit / mud / oil / lint interceptor or trap waste  
 Wastewater treatment plant sludge  Wastewater from sanitary sewer system  Septic tank / sewage holding tank waste  
 Other - specify source and type of waste: \_\_\_\_\_ Tank, interceptor or trap capacity: \_\_\_\_\_ (gallons)

2. This section applies to any waste removed from food service grease interceptors or traps that are subject to Austin City Code specified pump-out frequency requirements. All food service grease interceptors or traps located within the City of Austin (COA) or located at any property that receives wastewater service from Austin Water must comply. If needed, contact Austin Water to obtain the requested COA Pollution Control Device ID.

a) Was this waste removed from a grease interceptor or trap that is subject to Austin City Code pump-out requirements?  Yes  No  
**If NO, skip b) through f) below:**

b) COA Pollution Control Device ID:  unknown If ID unknown, provide device's GPS coordinates (in decimal degrees) below  
c) Percent solids/grease (estimate): \_\_\_\_\_ Latitude: 30. Longitude: -97.  
d) Is interceptor in good operating condition?  Yes  No If any interceptor problem or defect observed, please describe below  
e) Is submission of pump-out report required?  Yes  No  
f) Pump-out reporting done by:  Generator  Hauler  N/A Name or initials of person reporting: \_\_\_\_\_

Gallons Removed: 200 Date Removed: 7-23-21

As the representative for the generator of this waste, I certify that the information provided is true and correct; and that this waste is to be transported to a facility authorized by the Texas Commission on Environmental Quality (TCEQ) to receive these wastes.

**Printed Name:** Chris Leach **Signature:** Chris Leach

**Hauler Business Name:** SECUMON **Address:** 7544 S. SMITH  
**City:** BUDA **State:** TX **Zip Code:** 78610 **Phone:** 5123120002  
**TCEQ Registration No.:** 21565 **Vehicle License No.:** 21361

**SELLMAN ENTERPRISES, INC.** INVOICE # **34665**  
**SEPTIC SERVICES**  
*Septic Pumping and Repairs*

DATE: 7-23-21



P.O. BOX 1377, BUDA, TX 78610  
 AUSTIN BUDA  
 SOUTH 512-445-5489 512-312-0002  
 NORTH 512-837-1199 FAX 512-295-5534

**BILL TO:** Michael & Service  
5166 2208 5225 4050  
11620 11/23 (514)  
512 327 1308  
512 327 1308  
512 327 1308

SOLD BY	CASH	CHECK	CHARGE	ONACCOUNT	P.O.#	DESCRIPTION	AMOUNT	TOTAL TIME:	
								TIME IN:	TIME OUT:
						PUMP SEPTIC TANK	=		
						EXT PUMPING TIME HRS @	=		
						DIGGING TIME HRS @	=		
						EXT GALLONS GAL @	=		
						SYSTEM TYPE CONV: <input type="checkbox"/> LPD <input type="checkbox"/>	=		
						TANK SIZE GAL @	=		
						AEROBIC BRAND	=		
						OTHER	=		
						SERVICE CALL	=		
						PROPER WATER LEVEL ( ) YES ( ) NO			
						INLET TEE OK ( ) YES ( ) NO			
						OUTLET TEE OK ( ) YES ( ) NO			
						TANK DAMAGE ( ) YES ( ) NO			
						SYSTEM FAILURE ( ) YES ( ) NO			
COMMENTS							SUB TOTAL		
							TAX		
							TOTAL		

*Thank You*

**TERMS: Due Upon Receipt**

**\$25.00 RETURN CHECK FEE**

**X SIGNATURE:** I hereby acknowledge and accept satisfactory work as described above.



**SELLMAN ENTERPRISES, INC.**  
**SEPTIC SERVICES**  
*Septic Pumping and Repairs*

INVOICE # **34604**

DATE: **8/13/21**



P.O. BOX 1377, BUDA, TX 78610  
 AUSTIN BUDA  
 SOUTH 512-445-5489 512-312-0002  
 NORTH 512-837-1199 FAX 512-295-5534

BILL TO:

*MICHAEL RICHIE*  
 5406 3205 S 215 450  
 1947 N/23 (694)  
 904 607 8445  
 LOCATION: *LOVE STAR RIVER BOAT*  
 AUSTIN 78763

TIME IN: **7:30** TIME OUT: **12:15** TOTAL TIME: **4:45**

SOLD BY	CASH	CHECK	CHARGE	ON ACCOUNT	I.P.O. #	DESCRIPTION	AMOUNT
						PUMP SEPTIC TANK	=
						EXT PUMPING TIME HRS @	=
						DIGGING TIME HRS @	=
						EXT GALLONS GAL @	=
						SYSTEM TYPE CONV. <input type="checkbox"/> LPD <input type="checkbox"/>	=
						TANK SIZE GAL @	=
						AEROBIC BRAND	=
						OTHER	=
						SERVICE CALL	=
						PROPER WATER LEVEL ( ) YES ( ) NO	
						INLET TEE OK ( ) YES ( ) NO	
						OUTLET TEE OK ( ) YES ( ) NO	
						TANK DAMAGE ( ) YES ( ) NO	
						SYSTEM FAILURE ( ) YES ( ) NO	
						COMMENTS	
SUB TOTAL							225.57
TAX							13.27
TOTAL							238.84

*Thank You*

TERMS: Due Upon Receipt

\$25.00 RETURN CHECK FEE

X

SIGNATURE: I hereby acknowledge and accept satisfactory work as described above.

City of Austin / Travis County  
 Austin Water

**Manifest / Trip Ticket for Hauled Liquid Wastes**

Number: **1163416**

Generator Name: *LOVE STAR RIVER BOAT* Address: *101 S 1ST ST*  
 City: *AUSTIN* State: *TX* Zip Code: *78704* Phone: *5123271388*

Generator Info

1. Indicate the waste type (check one) and, if applicable, the tank, interceptor or trap capacity:  Food service grease interceptor or trap waste  
 Chemical toilet / portable toilet waste  Wastewater from a mobile food vendor  Grit / mud / oil / lint interceptor or trap waste  
 Wastewater treatment plant sludge  Wastewater from sanitary sewer system  Septic tank / sewage holding tank waste  
 Other - specify source and type of waste: \_\_\_\_\_ Tank, interceptor or trap capacity: \_\_\_\_\_ (gallons)

2. This section applies to any waste removed from food service grease interceptors or traps that are subject to Austin City Code specified pump-out frequency requirements. All food service grease interceptors or traps located within the City of Austin (COA) or located at any property that receives wastewater service from Austin Water must comply. If needed, contact Austin Water to obtain the requested COA Pollution Control Device ID.

a) Was this waste removed from a grease interceptor or trap that is subject to Austin City Code pump-out requirements?  Yes  No

If NO, skip b) through f) below:

b) COA Pollution Control Device ID:  unknown If ID unknown, provide device's GPS coordinates (in decimal degrees) below

c) Percent solids/grease (estimate): \_\_\_\_\_ Latitude: **30.** Longitude: **-97.**

d) Is interceptor in good operating condition?  Yes  No If any interceptor problem or defect observed, please describe below

e) Is submission of pump-out report required?  Yes  No

f) Pump-out reporting done by:  Generator  Hauler  N/A Name or initials of person reporting: \_\_\_\_\_

Gallons Removed: *200* Date Removed: *8/13/21*

As the representative for the generator of this waste, I certify that the information provided is true and correct, and that this waste is to be transported to a facility authorized by the Texas Commission on Environmental Quality (TCEQ) to receive these wastes.

Printed Name: *DJ CORNELL* Signature: *[Signature]*

Hauler Info

Hauler Business Name: *SELLMAN* Address: *454 KELLY SMITH*

City: *BUDA* State: *TX* Zip Code: *78610* Phone: *5123120002*

TCEQ Registration No.: *21565* Vehicle License No.: *1M2 1861*



**Generator Name:** LONE STAR NOVA BOAT **Address:** 101 S 1ST ST  
**City:** AUSTIN **State:** TX **Zip Code:** 78704 **Phone:** 512 327 1377

1. Indicate the waste type (check one) and, if applicable, the tank, interceptor or trap capacity:  Food service grease interceptor or trap waste  
 Chemical toilet / portable toilet waste  Wastewater from a mobile food vendor  Grit / mud / oil / lint interceptor or trap waste  
 Wastewater treatment plant sludge  Wastewater from sanitary sewer system  Septic tank / sewage holding tank waste  
 Other - specify source and type of waste: \_\_\_\_\_ Tank, interceptor or trap capacity: \_\_\_\_\_ (gallons)

2. This section applies to any waste removed from food service grease interceptors or traps that are subject to Austin City Code specified pump-out frequency requirements. All food service grease interceptors or traps located within the City of Austin (COA) or located at any property that receives wastewater service from Austin Water must comply. If needed, contact Austin Water to obtain the requested COA Pollution Control Device ID.

a) Was this waste removed from a grease interceptor or trap that is subject to Austin City Code pump-out requirements?  Yes  No  
 If NO, skip b) through f) below:

b) COA Pollution Control Device ID:  unknown If ID unknown, provide device's GPS coordinates (in decimal degrees) below  
 c) Percent solids/grease (estimate): \_\_\_\_\_ Latitude: 30. Longitude: -97.  
 d) Is interceptor in good operating condition?  Yes  No If any interceptor problem or defect observed, please describe below  
 e) Is submission of pump-out report required?  Yes  No  
 f) Pump-out reporting done by:  Generator  Hauler  N/A Name or initials of person reporting: \_\_\_\_\_

Gallons Removed: 200 Date Removed: 7 21 21

As the representative for the generator of this waste, I certify that the information provided is true and correct; and that this waste is to be transported to a facility authorized by the Texas Commission on Environmental Quality (TCEQ) to receive these wastes.

Printed Name: CHRIS LEACH Signature: [Signature]

**Hauler Business Name:** SELLMAN **Address:** 759 GEARY SMITH  
**City:** BUDA **State:** TX **Zip Code:** 78610 **Phone:** 512 312 0002  
**TCEQ Registration No.:** 21566 **Vehicle License No.:** BDP DPN 1211

Gallons Transported: 200 Date Relinquished: \_\_\_\_\_

**SELLMAN ENTERPRISES, INC.**  
**SEPTIC SERVICES**  
*Septic Pumping and Repairs*

P.O. BOX 1377, BUDA, TX 78610  
 AUSTIN SOUTH 512-445-5489 NORTH 512-837-1199  
 BUDA 512-312-0002 FAX 512-295-5534

**BILL TO:** MICHAEL K FENDLE  
 5904 12TH 512 623 6200  
 312 347 1377

INVOICE # **34256**  
 DATE: 7 21 21

LOCATION: 1123 (894)  
312 347 1377

TIME IN: \_\_\_\_\_ TIME OUT: \_\_\_\_\_ TOTAL TIME: \_\_\_\_\_

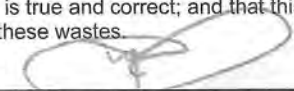
DESCRIPTION	CASH	CHECK	CHARGE ON ACCOUNT	P.O. #	AMOUNT
PUMP SEPTIC TANK					
EXT PUMPING TIME					
DIGGING TIME					
EXT GALLONS					
SYSTEM TYPE					
TANK SIZE					
AEROBIC BRAND					
OTHER					
SERVICE CALL					
PROPER WATER LEVEL					
INLET TEE OK					
OUTLET TEE OK					
TANK DAMAGE					
SYSTEM FAILURE					
COMMENTS					
SUB TOTAL					200
TAX					20
TOTAL					220

MS: Due Upon Receipt  
 Thank You  
 \$25.00 RETURN CHECK FF

I hereby acknowledge and accept satisfactory work as described above

City of Austin / Travis County  
Austin Water  
Manifest / Trip Ticket for Hauled Liquid Wastes

Number: **1163580**

Generator Name: <b>LONE STAR RIVER BOAT</b>		Address: <b>101 S 1ST ST</b>	
City: <b>AUSTIN</b>	State: <b>TX</b>	Zip Code: <b>78704</b>	Phone: <b>5123271328</b>
<p>1. Indicate the waste type (check one) and, if applicable, the tank, interceptor or trap capacity:</p> <input type="checkbox"/> Chemical toilet / portable toilet waste <input type="checkbox"/> Wastewater from a mobile food vendor <input type="checkbox"/> Food service grease interceptor or trap waste <input type="checkbox"/> Wastewater treatment plant sludge <input type="checkbox"/> Wastewater from sanitary sewer system <input checked="" type="checkbox"/> Grit / mud / oil / lint interceptor or trap waste <input type="checkbox"/> Other - specify source and type of waste: _____ <input checked="" type="checkbox"/> Septic tank / sewage holding tank waste Tank, interceptor or trap capacity: _____ (gallons)			
<p>2. This section applies to any waste removed from food service grease interceptors or traps that are subject to Austin City Code specified pump-out frequency requirements. All food service grease interceptors or traps located within the City of Austin (COA) or located at any property that receives wastewater service from Austin Water must comply. If needed, contact Austin Water to obtain the requested COA Pollution Control Device ID.</p>			
<p>a) Was this waste removed from a grease interceptor or trap that is subject to Austin City Code pump-out requirements?    <input type="checkbox"/> Yes    <input type="checkbox"/> No</p> <p>If NO, skip b) through f) below:</p>			
b) COA Pollution Control Device ID: <input type="checkbox"/> unknown		If ID unknown, provide device's GPS coordinates (in decimal degrees) below	
c) Percent solids/grease (estimate):		Latitude: <b>30.</b> Longitude: <b>-97.</b>	
d) Is interceptor in good operating condition? <input type="checkbox"/> Yes <input type="checkbox"/> No		If any interceptor problem or defect observed, please describe below	
e) Is submission of pump-out report required? <input type="checkbox"/> Yes <input type="checkbox"/> No			
f) Pump-out reporting done by: <input type="checkbox"/> Generator <input type="checkbox"/> Hauler <input type="checkbox"/> N/A		Name or initials of person reporting: _____	
Gallons Removed: <b>200</b>		Date Removed: <b>11/18/21</b>	
<p>As the representative for the generator of this waste, I certify that the information provided is true and correct; and that this waste is to be transported to a facility authorized by the Texas Commission on Environmental Quality (TCEQ) to receive these wastes.</p>			
Printed Name: <b>D.T. CORNWELL</b>		Signature: 	
Hauler Business Name: <b>SELLMAN</b>		Address: <b>457 KELLY SMITH</b>	
City: <b>BUDA</b>	State: <b>TX</b>	Zip Code: <b>78610</b>	Phone: <b>5123120002</b>
TCEQ Registration No.: <b>21565</b>		Vehicle License No.: <b>DPN1210</b>	

Generator Info

Hauler Info

**SELLMAN ENTERPRISES, INC.**    INVOICE # **33973**  
**SEPTIC SERVICES**  
 Septic Pumping and Repairs  
 DATE: **11/18/21**

P.O. BOX 1377, BUDA, TX 78610  
 AUSTIN  
 SOUTH 512-445-5489    512-312-0002  
 NORTH 512-837-1199    FAX 512-295-5534



BILL TO:

LOCATION:

101 S 1ST ST  
 AUSTIN TX 78704  
 11/18/21  
 11:30 AM - 1:00 PM  
 TOTAL TIME: 1:30

DESCRIPTION	TIME IN:	TIME OUT:	TOTAL TIME:	AMOUNT
PUMP SEPTIC TANK				
EXT PUMPING TIME	HRS @			315.00
DIGGING TIME	HRS @			
EXT GALLONS	GAL @			
SYSTEM TYPE	CONV. <input type="checkbox"/>	LPD <input type="checkbox"/>		
TANK SIZE	GAL @			
AEROBIC BRAND				
OTHER				
SERVICE CALL	( ) YES ( ) NO			
PROPER WATER LEVEL	( ) YES ( ) NO			
INLET TEE OK	( ) YES ( ) NO			
OUTLET TEE OK	( ) YES ( ) NO			
TANK DAMAGE	( ) YES ( ) NO			
SYSTEM FAILURE	( ) YES ( ) NO			
COMMENTS				
SUB TOTAL				315.00
TAX				25.00
TOTAL				340.00

TERMS: Due Upon Receipt

\$25.00 RETURN CHECK FEE

Thank You

X SIGNATURE: I hereby acknowledge and accept satisfactory work as described above.



City of Austin / Travis County  
Austin Water  
Manifest / Trip Ticket for Hauled Liquid Wastes

Number: **1191253**

Generator Name: <u>Lone Star Livestock</u>		Address:	
City: <u>Austin</u>	State: <u>TX</u>	Zip Code:	Phone:
1. Indicate the waste type (check one) and, if applicable, the tank, interceptor or trap capacity: <input type="checkbox"/> Food service grease interceptor or trap waste <input type="checkbox"/> Chemical toilet / portable toilet waste <input type="checkbox"/> Wastewater from a mobile food vendor <input type="checkbox"/> Grit / mud / oil / lint interceptor or trap waste <input type="checkbox"/> Wastewater treatment plant sludge <input type="checkbox"/> Wastewater from sanitary sewer system <input checked="" type="checkbox"/> Septic tank / sewage holding tank waste <input type="checkbox"/> Other - specify source and type of waste: _____ Tank, interceptor or trap capacity: _____ (gallons)			
2. This section applies to any waste removed from food service grease interceptors or traps that are subject to Austin City Code specified pump-out frequency requirements. All food service grease interceptors or traps located within the City of Austin (COA) or located at any property that receives wastewater service from Austin Water must comply. If needed, contact Austin Water to obtain the requested COA Pollution Control Device ID.			
a) Was this waste removed from a grease interceptor or trap that is subject to Austin City Code pump-out requirements? <input type="checkbox"/> Yes <input type="checkbox"/> No If NO, skip b) through f) below:			
b) COA Pollution Control Device ID: <input type="checkbox"/> unknown		If ID unknown, provide device's GPS coordinates (in decimal degrees) below	
c) Percent solids/grease (estimate):		Latitude: <u>30.</u> Longitude: <u>-97.</u>	
d) Is interceptor in good operating condition? <input type="checkbox"/> Yes <input type="checkbox"/> No		If any interceptor problem or defect observed, please describe below	
e) Is submission of pump-out report required? <input type="checkbox"/> Yes <input type="checkbox"/> No			
f) Pump-out reporting done by: <input type="checkbox"/> Generator <input type="checkbox"/> Hauler <input type="checkbox"/> N/A		Name or initials of person reporting: _____	
Gallons Removed:		Date Removed:	
As the representative for the generator of this waste, I certify that the information provided is true and correct; and that this waste is to be transported to a facility authorized by the Texas Commission on Environmental Quality (TCEQ) to receive these wastes.			
Printed Name: <u>D.J. Corwin</u>		Signature: <u>[Signature]</u>	
Hauler Business Name: <u>Sullivan</u>		Address: <u>830 Kelly Smith Ln</u>	
City: <u>Buda</u>	State: <u>TX</u>	Zip Code:	Phone: <u>312-0002</u>
TCEQ Registration No.: <u>21565</u>		Vehicle License No.: <u>D9N-1210</u>	
COA Permit No.:		Date Relinquished:	

**SELLMAN ENTERPRISES, INC.**  
**SEPTIC SERVICES**  
*Septic Pumping and Repairs*

INVOICE # **33370**  
DATE: 3-1-22





P.O. BOX 1377, BUDA, TX 78610  
AUSTIN BUDA  
SOUTH 512-445-5489 512-312-0002  
NORTH 512-837-1199 FAX 512-295-5534

BILL TO: Lone Star Livestock  
DJ  
512-327-1598

LOCATION: 208 Bertha Springs Dr

TIME IN: 17:00 TIME OUT: 17:30 TOTAL TIME: \_\_\_\_\_

SOLD BY	CASH	CHECK	CHARGE	ON ACCOUNT	P.O. #	DESCRIPTION	AMOUNT
						PUMP SEPTIC TANK	=
						EXT PUMPING TIME HRS @	=
						DIGGING TIME HRS @	=
						EXT GALLONS GAL @	=
						SYSTEM TYPE CONV. <input type="checkbox"/> LPD <input type="checkbox"/>	=
						TANK SIZE GAL @	=
						AEROBIC BRAND	=
						OTHER	=
						SERVICE CALL	=
						PROPER WATER LEVEL ( ) YES ( ) NO	
						INLET TEE OK ( ) YES ( ) NO	
						OUTLET TEE OK ( ) YES ( ) NO	
						TANK DAMAGE ( ) YES ( ) NO	
						SYSTEM FAILURE ( ) YES ( ) NO	
COMMENTS							
SUB TOTAL							
TAX							
TOTAL							

*Thank You*

**\$25.00 RETURN CHECK FEE**

TERMS: *Due Upon Receipt*

**X** SIGNATURE: [Signature] hereby acknowledge and accept satisfactory work as described above.



City of Austin / Travis County  
Austin Water  
Manifest / Trip Ticket for Hauled Liquid Wastes

Number: **1191359**

Generator Info	Generator Name: <u>Lone Star Party Boat</u>		Address: <u>203 Barton Creek</u>		
	City: <u>Austin</u>	State: <u>TX</u>	Zip Code:	Phone:	
	1. Indicate the waste type (check one) and, if applicable, the tank, interceptor or trap capacity: <input type="checkbox"/> Food service grease interceptor or trap waste				
	<input type="checkbox"/> Chemical toilet / portable toilet waste <input type="checkbox"/> Wastewater from a mobile food vendor <input type="checkbox"/> Grit / mud / oil / lint interceptor or trap waste				
	<input type="checkbox"/> Wastewater treatment plant sludge <input type="checkbox"/> Wastewater from sanitary sewer system <input type="checkbox"/> Septic tank / sewage holding tank waste				
<input type="checkbox"/> Other - specify source and type of waste: _____ Tank, interceptor or trap capacity: _____ (gallons)					
2. This section applies to any waste removed from food service grease interceptors or traps that are subject to Austin City Code specified pump-out frequency requirements. All food service grease interceptors or traps located within the City of Austin (COA) or located at any property that receives wastewater service from Austin Water must comply. If needed, contact Austin Water to obtain the requested COA Pollution Control Device ID.					
a) Was this waste removed from a grease interceptor or trap that is subject to Austin City Code pump-out requirements? <input type="checkbox"/> Yes <input type="checkbox"/> No					
If NO, skip b) through f) below:					
b) COA Pollution Control Device ID: <input type="checkbox"/> unknown		If ID unknown, provide device's GPS coordinates (in decimal degrees) below			
c) Percent solids/grease (estimate):		Latitude: <u>30.</u> Longitude: <u>-97.</u>			
d) Is interceptor in good operating condition? <input type="checkbox"/> Yes <input type="checkbox"/> No		If any interceptor problem or defect observed, please describe below			
e) Is submission of pump-out report required? <input type="checkbox"/> Yes <input type="checkbox"/> No					
f) Pump-out reporting done by: <input type="checkbox"/> Generator <input type="checkbox"/> Hauler <input type="checkbox"/> N/A		Name or initials of person reporting: _____			
Gallons Removed:		Date Removed: <u>3-22-22</u>			
As the representative for the generator of this waste, I certify that the information provided is true and correct; and that this waste is to be transported to a facility authorized by the Texas Commission on Environmental Quality (TCEQ) to receive these wastes.					
Printed Name: <u>D.J. Cannon</u>		Signature:			
Hauler Info	Hauler Business Name: <u>Sellman</u>		Address: <u>830 Kelly Smith Ln</u>		
	City: <u>Bud</u>	State: <u>TX</u>	Zip Code:	Phone: <u>312-0002</u>	
	TCEQ Registration No.: <u>21565</u>		Vehicle License No.: <u>DPR-1110</u>		
	Gallons Transported:		Date Relinquished:		

**SELLMAN ENTERPRISES, INC.**  
**SEPTIC SERVICES**  
*Septic Pumping and Repairs*

INVOICE # **34181**  
DATE: 3-22-22





P.O. BOX 1377, BUDA, TX 78610  
AUSTIN  
SOUTH 512-445-5489  
NORTH 512-837-1199  
BUDA  
512-312-0002  
FAX 512-295-5534

BILL TO: Lone Star Party Boat

LOCATION:

SOLD BY	CASH	CHECK	CHARGE	ON ACCOUNT	I.P.O. #	DESCRIPTION	TOTAL TIME:		AMOUNT
							TIME IN:	TIME OUT:	
						PUMP SEPTIC TANK			
						EXT PUMPING TIME	HRS @		
						DIGGING TIME	HRS @		
						EXT GALLONS	GAL @		
						SYSTEM TYPE	CONV. <input type="checkbox"/> LPD <input type="checkbox"/>		
						TANK SIZE	GAL @		
						AEROBIC BRAND			
						OTHER			
						SERVICE CALL			
						PROPER WATER LEVEL	( ) YES ( ) NO		
						INLET TEE OK	( ) YES ( ) NO		
						OUTLET TEE OK	( ) YES ( ) NO		
						TANK DAMAGE	( ) YES ( ) NO		
						SYSTEM FAILURE	( ) YES ( ) NO		
COMMENTS									
SUB TOTAL									
TAX									
TOTAL									

Thank You

TERMS: Due Upon Receipt

**\$25.00 RETURN CHECK FEE**

SIGNATURE: I hereby acknowledge and accept satisfactory work as described above.



**SELLMAN ENTERPRISES, INC.**  
**SEPTIC SERVICES**  
*Septic Pumping and Repairs*

INVOICE # **33843**

DATE: **4-4-22**



P.O. BOX 1377, BUDA, TX 78610

AUSTIN BUDA  
 SOUTH 512-445-5489 512-312-0002  
 NORTH 512-837-1199 FAX 512-295-5534

BILL TO:

LOCATION:

*Austin River Boat*  
 208 Bartonck id  
 TX

TIME IN: **1:00** TIME OUT: **1:20** TOTAL TIME: **39min**

SOLD BY	CASH	CHECK	CHARGE	ON ACCOUNT	P.O. #	DESCRIPTION	AMOUNT	
						PUMP SEPTIC TANK	=	
						EXT PUMPING TIME	=	
						DIGGING TIME	=	
						EXT GALLONS	=	
						SYSTEM TYPE CONV. <input type="checkbox"/> LPD <input type="checkbox"/>	=	
						TANK SIZE GAL @	=	
						AEROBIC BRAND	=	
						OTHER	=	
						SERVICE CALL	=	
						PROPER WATER LEVEL ( ) YES ( ) NO		
						INLET TEE OK ( ) YES ( ) NO		
						OUTLET TEE OK ( ) YES ( ) NO		
						TANK DAMAGE ( ) YES ( ) NO		
						SYSTEM FAILURE ( ) YES ( ) NO		
COMMENTS							SUB TOTAL	
							TAX	
							TOTAL	

*Thank You*

TERMS: Due Upon Receipt

\$25.00 RETURN CHECK FEE

X

SIGNATURE: I hereby acknowledge and accept satisfactory work as described above.

Manifest / Trip Ticket for Hauled Liquid Wastes

Austin Water

Number: **1197902**

Generator Name: *AUSTIN River Boat* Address: *208 Bartonck Rd*  
 City: *Buda* State: *TX* Zip Code: Phone:  
 1. Indicate the waste type (check one) and, if applicable, the tank, interceptor or trap capacity:  Food service grease interceptor or trap waste  
 Chemical toilet / portable toilet waste  Wastewater from a mobile food vendor  Grit / mud / oil / lint interceptor or trap waste  
 Wastewater treatment plant sludge  Wastewater from sanitary sewer system  Septic tank / sewage holding tank waste  
 Other - specify source and type of waste: Tank, interceptor or trap capacity: (gallons)  
 2. This section applies to any waste removed from food service grease interceptors or traps that are subject to Austin City Code specified pump-out frequency requirements. All food service grease interceptors or traps located within the City of Austin (COA) or located at any property that receives wastewater service from Austin Water must comply. If needed, contact Austin Water to obtain the requested COA Pollution Control Device ID.  
 a) Was this waste removed from a grease interceptor or trap that is subject to Austin City Code pump-out requirements?  Yes  No  
 If NO, skip b) through f) below:  
 b) COA Pollution Control Device ID:  unknown If ID unknown, provide device's GPS coordinates (in decimal degrees) below  
 c) Percent solids/grease (estimate): Latitude: **30.** Longitude: **-97.**  
 d) Is interceptor in good operating condition?  Yes  No If any interceptor problem or defect observed, please describe below  
 e) Is submission of pump-out report required?  Yes  No  
 f) Pump-out reporting done by:  Generator  Hauler  N/A Name or initials of person reporting:  
 Gallons Removed: **500** Date Removed: **24-4-22**  
 As the representative for the generator of this waste, I certify that the information provided is true and correct; and that this waste is to be transported to a facility authorized by the Texas Commission on Environmental Quality (TCEQ) to receive these wastes.  
 Printed Name: *DT CORNWELL* Signature: *[Signature]*  
 Hauler Business Name: *Sellman* Address: *230 Kelly Smith Ln*  
 City: *Buda* State: *TX* Zip Code: Phone: *312-0002*  
 TCEQ Registration No.: *21565* Vehicle License No.: *DDN-1210*  
 COA Permit No.: Gallons Transported:



**SELLMAN ENTERPRISES, INC.**  
**SEPTIC SERVICES**  
*Septic Pumping and Repairs*

INVOICE # **33344**  
 DATE: **5-16-27**



P.O. BOX 1377, BUDA, TX 78610  
 AUSTIN  
 SOUTH 512-445-5489  
 NORTH 512-837-1199  
 BUDA  
 512-312-0002  
 FAX 512-295-5534

**BILL TO:** *Lone Star River Boat*  
**LOCATION:** *208 Barton Springs*  
*Austin TX*

TIME IN: *11:00* TIME OUT: *11:30* TOTAL TIME: *50m*

SOLD BY	CASH	CHECK	CHARGE	ON ACCOUNT	P.O. #	DESCRIPTION	AMOUNT
						PUMP SEPTIC TANK	=
						EXT PUMPING TIME HRS @	=
						DIGGING TIME HRS @	=
						EXT GALLONS GAL @	=
						SYSTEM TYPE CONV. <input type="checkbox"/> LPD <input type="checkbox"/>	=
						TANK SIZE GAL @	=
						AEROBIC BRAND	=
						OTHER	=
						SERVICE CALL	=
						PROPER WATER LEVEL ( ) YES ( ) NO	
						INLET TEE OK ( ) YES ( ) NO	
						OUTLET TEE OK ( ) YES ( ) NO	
						TANK DAMAGE ( ) YES ( ) NO	
						SYSTEM FAILURE ( ) YES ( ) NO	
COMMENTS							
SUB TOTAL							
TAX							
TOTAL							

*Thank You*

**TERMS: Due Upon Receipt**  
**\$25.00 RETURN CHECK FEE**

**X** SIGNATURE: *[Signature]* I hereby acknowledge and accept satisfactory work as described above.



**Waste Tracking Form**

No. **49931**

**Generator Information**

Generator Name: *Lone Star river Boat*  
 Address: *208 Barton Springs* County: *Texas* Telephone: \_\_\_\_\_

This waste was removed from my:  Grease Trap  Septic Tank  Other \_\_\_\_\_ (Specify)  
 Grit Trap  Chemical Toilet

OR This waste is:  Sewer Sludge My waste tank or trap holds up to \_\_\_\_\_ gallons.  
 Water Treatment Sludge The transporter removed a total of *500* gallons.  
 Date of last pumping: \_\_\_\_\_

As the generator's representative, I certify that this waste contains no hazardous materials, was removed from this address on *5/16/27* at *11:00*  a.m.  p.m., and is to be transported to a facility that the Texas Commission on Environmental Quality has authorized to receive these wastes.

Generator Name (printed) *DJ. CORWELL* Generator's Signature *[Signature]*

**Transporter Information**

Business Name: *Sellman* TCEQ Registration Number: *71565*  
 Address: *830 Kelly Smith Ln* GBRA Permit Number: *73*  
 Vehicle Capacity: *3500* gallons





# Waste Tracking Form

No. **51478**

## Generator Information

Generator Name: Lone Star River Boat  
Address: 208 Barton Springs County: Travis Telephone: \_\_\_\_\_

This waste was removed from my:  Grease Trap,  Septic Tank,  Other \_\_\_\_\_  
 Grit Trap,  Chemical Toilet (Specify)

OR This waste is:  Sewer Sludge,  Water Treatment Sludge  
My waste tank or trap holds up to \_\_\_\_\_ gallons.  
The transporter removed a total of 200 gallons.  
Date of last pumping: \_\_\_\_\_

As the generator's representative, I certify that this waste contains no hazardous materials, was removed from this address on 6/15/72 at 9:  a.m.  p.m., and is to be transported to a facility that the Texas Commission on Environmental Quality has authorized to receive these wastes.

Generator Name (printed) DJ Corneill Generator's Signature

## Transporter Information

Business Name: Sellman TCEQ Registration Number: 21565  
Address: 830 Kelly Smith Ln GBRA Permit Number: 73  
Telephone: 312-0002 Vehicle Capacity: 3500 gallons  
Truck License Number: DRN-1210

## Grease Trap Conditions

INVOICE # **34157**  
DATE: 6-16-72



**SELLMAN ENTERPRISES, INC.**  
**SEPTIC SERVICES**  
*Septic Pumping and Repairs*

P.O. BOX 1377, BUDA, TX 78610  
AUSTIN BUDA  
SOUTH 512-445-5489 512-312-0002  
NORTH 512-837-1199 FAX 512-295-5534

BILL TO: Lone Star River Boat LOCATION: 208 Barton Springs  
DJ Corneill

SOLD BY	TIME IN:		TIME OUT:		TOTAL TIME:	CHARGE	ON ACCOUNT	P.O. #	DESCRIPTION	AMOUNT
	CASH	CHECK								
									PUMP SEPTIC TANK	200
									EXT PUMPING TIME HRS @	315
									DIGGING TIME HRS @	
									EXT GALLONS GAL @	
									SYSTEM TYPE CONV. <input type="checkbox"/> LPD <input type="checkbox"/>	
									TANK SIZE GAL @	
									AEROBIC BRAND	
									OTHER	
									SERVICE CALL	
									PROPER WATER LEVEL ( ) YES ( ) NO	
									INLET TEE OK ( ) YES ( ) NO	
									OUTLET TEE OK ( ) YES ( ) NO	
									TANK DAMAGE ( ) YES ( ) NO	
									SYSTEM FAILURE ( ) YES ( ) NO	
COMMENTS										
SUB TOTAL										215
TAX										27
TOTAL										240

*Thank You*

**\$25.00 RETURN CHECK FEE**

TERMS: Due Upon Receipt

**X** SIGNATURE: I hereby acknowledge and accept satisfactory work as described above.





# Waste Tracking Form

No. **51484**

## Generator Information

Generator Name: Lone Star River Beat  
Address: 708 Barton Spring rd County: Texas Telephone: \_\_\_\_\_

This waste was removed from my:  Grease Trap  Septic Tank  Other \_\_\_\_\_ (Specify)  
 Grit Trap  Chemical Toilet

OR This waste is:  Sewer Sludge My waste tank or trap holds up to \_\_\_\_\_ gallons.  
 Water Treatment Sludge The transporter removed a total of 209 gallons.  
Date of last pumping: \_\_\_\_\_

As the generator's representative, I certify that this waste contains no hazardous materials, was removed from this address on 6/24/22 at 11:00  a.m.  p.m., and is to be transported to a facility that the Texas Commission on Environmental Quality has authorized to receive these wastes.

Generator Name (printed) DJ Corwin Generator's Signature

## Transporter Information

Business Name: Sellman TCEQ Registration Number: 21565  
Address: \_\_\_\_\_

INVOICE # 026385

DATE: 6-24-22

**SELLMAN ENTERPRISES, INC.**  
**SEPTIC SERVICES**  
*Septic Pumping and Repairs*



P.O. BOX 1377, BUDA, TX 78610  
AUSTIN BUDA  
SOUTH 445-5489 312-0002  
NORTH 837-1199 FAX (512) 295-5534

BILL TO: Lone Star River Beat  
LOCATION: 708 Barton Spring Rd  
Auda

SOLD BY	TIME IN:		TIME OUT:		TOTAL TIME:	CHARGE ON ACCOUNT (P.O. #)	DESCRIPTION	AMOUNT
	CASH	CHECK						
							PUMP SEPTIC TANK	=
							EXT PUMPING TIME HRS @	=
							DIGGING TIME HRS @	=
							EXT GALLONS GAL @	=
							SYSTEM TYPE - CONV. <input type="checkbox"/> LPD <input type="checkbox"/>	=
							TANK SIZE GAL @	=
							AEROBIC BRAND	=
							OTHER	=
							SERVICE CALL	=
							PROPER WATER LEVEL ( ) YES ( ) NO	
							INLET TEE OK ( ) YES ( ) NO	
							OUTLET TEE OK ( ) YES ( ) NO	
							TANK DAMAGE ( ) YES ( ) NO	
							SYSTEM FAILURE ( ) YES ( ) NO	
							COMMENTS	
							SUB TOTAL	
							TAX	
							TOTAL	

*Thank You*

\$25.00 RETURN CHECK FEE

TERMS: Due Upon Receipt

X SIGNATURE: I hereby acknowledge and accept satisfactory work as described above.





# Waste Tracking Form

No. 50491

### Generator Information

Generator Name: Lone Star River Boat

Address: 208 Barton Springs County: Texas Telephone: \_\_\_\_\_

This waste was removed from my:  Grease Trap  Septic Tank  Other \_\_\_\_\_ (Specify)

OR This waste is:  Sewer Sludge  Grit Trap  Chemical Toilet

My waste tank or trap holds up to \_\_\_\_\_ gallons.  
The transporter removed a total of 200 gallons.  
Date of last pumping: \_\_\_\_\_

As the generator's representative, I certify that this waste contains no hazardous materials, was removed from this address on 7/7/22 at 11:  a.m.  p.m., and is to be transported to a facility that the Texas Commission on Environmental Quality has authorized to receive these wastes.

Generator Name (printed) TJ CORNWELL Generator's Signature

### Transporter Information

Business Name: Sellman TCEQ Registration Number: 21565

Address: 630 Kelly Smith Ln GBRA Permit Number: 73

Telephone: 312-0002 Vehicle Capacity: 3500 gallons  
Truck License Number: DPN-1210

### Grease Trap Conditions

INVOICE # **34067**  
DATE: 7-7-22

**SELLMAN ENTERPRISES, INC.**  
**SEPTIC SERVICES**  
*Septic Pumping and Repairs*



P.O. BOX 1377, BUDA, TX 78610  
AUSTIN BUDA  
SOUTH 512-445-5489 512-312-0002  
NORTH 512-837-1199 FAX 512-295-5534

BILL TO: Lone Star RV  
DJC  
LOCATION: 208 Barton Springs

TIME IN: 11:00 TIME OUT: \_\_\_\_\_ TOTAL TIME: \_\_\_\_\_

SOLD BY	CASH	CHECK	CHARGE	ON ACCOUNT	P.O. #	DESCRIPTION	AMOUNT
						PUMP SEPTIC TANK	=
						EXT PUMPING TIME HRS @	=
						DIGGING TIME HRS @	=
						EXT GALLONS GAL @	=
						SYSTEM TYPE CONV. <input type="checkbox"/> LPD <input type="checkbox"/>	=
						TANK SIZE GAL @	=
						AEROBIC BRAND	=
						OTHER	=
						SERVICE CALL	=
						PROPER WATER LEVEL ( ) YES ( ) NO	=
						INLET TEE OK ( ) YES ( ) NO	=
						OUTLET TEE OK ( ) YES ( ) NO	=
						TANK DAMAGE ( ) YES ( ) NO	=
						SYSTEM FAILURE ( ) YES ( ) NO	=
COMMENTS							
SUB TOTAL							
TAX							
TOTAL							

*Thank You*

**\$25.00 RETURN CHECK FEE**

TERMS: Due Upon Receipt

**X** SIGNATURE: I hereby acknowledge and accept satisfactory work as described above.





# Waste Tracking Form

No. **54710**

## Generator Information

Generator Name: Lone Star River Bay  
Address: 708 Barton Springs rd County: Texas Telephone: \_\_\_\_\_

This waste was removed from my:  Grease Trap  Septic Tank  Other \_\_\_\_\_  
 Grit Trap  Chemical Toilet (Specify)

OR This waste is:  Sewer Sludge  Water Treatment Sludge  
My waste tank or trap holds up to \_\_\_\_\_ gallons.  
The transporter removed a total of 700 gallons.  
Date of last pumping: \_\_\_\_\_

As the generator's representative, I certify that this waste contains no hazardous materials, was removed from this address on 8/3/22 at 10: \_\_\_\_\_  a.m.  p.m., and is to be transported to a facility that the Texas Commission on Environmental Quality has authorized to receive these wastes.

Generator Name (printed) DJ Corbett Generator's Signature

## Transporter Information

Business Name: Sellman TCEQ Registration Number: 21565  
Address: 831 Kelly Smith Ln GBRA Permit Number: 17  
Telephone: 312-0002 Vehicle Capacity: 3500 gallons  
Truck License Number: PPN-12W

## Grease Trap Conditions

INVOICE # 34253  
DATE: 8/3/22

**LOPEZ & MORRIS LLC**  
*Sellman Septic Services*

P.O. Box 828 Kyle, TX 78640  
Main Line: 512-312-0002

BILL TO: \_\_\_\_\_  
LOCATION: Augustine

TIME IN: \_\_\_\_\_ TIME OUT: \_\_\_\_\_ TOTAL TIME: \_\_\_\_\_

SOLD BY	CASH	CHECK	CHARGE	ON ACCOUNT	P.O. #	AMOUNT
PUMP SEPTIC TANK						=
EXT PUMPING TIME						=
DIGGING TIME						=
EXT GALLONS						=
SYSTEM TYPE						=
TANK SIZE						=
AEROBIC BRAND						=
OTHER						=
SERVICE CALL						=
PROPER WATER LEVEL						( ) YES ( ) NO
INLET TEE OK						( ) YES ( ) NO
OUTLET TEE OK						( ) YES ( ) NO
TANK DAMAGE						( ) YES ( ) NO
SYSTEM FAILURE						( ) YES ( ) NO
COMMENTS						
SUB TOTAL						
TAX						
TOTAL						

Thank You  
TERMS: Due Upon Receipt  
\$25.00 RETURN CHECK FEE

X SIGNATURE: I hereby acknowledge and accept satisfactory work as described above.





# Waste Tracking Form

No. 49967

## Generator Information

Generator Name: Lone Star River Boat  
Address: 208 Barton Springs rd County: Texas Telephone: \_\_\_\_\_

This waste was removed from my:  Grease Trap  Septic Tank  Other \_\_\_\_\_ (Specify)  
 Grit Trap  Chemical Toilet

OR This waste is:  Sewer Sludge My waste tank or trap holds up to \_\_\_\_\_ gallons.  
 Water Treatment Sludge The transporter removed a total of 200 gallons.  
Date of last pumping: \_\_\_\_\_

As the generator's representative, I certify that this waste contains no hazardous materials, was removed from this address on 9/2/22 at 11:  a.m.  p.m., and is to be transported to a facility that the Texas Commission on Environmental Quality has authorized to receive these wastes.

Generator Name (printed) FRED DUPUY Generator's Signature \_\_\_\_\_

## Transporter Information

Business Name: Sellman TCEQ Registration Number: 21565  
Address: 830 Kelly Smith Ln GBRA Permit Number: 17

Telephone: 317-0002 Vehicle Capacity: 3500 gallons  
Truck License Number: DPN-1210

## Grease Trap Conditions

INVOICE # \_\_\_\_\_  
DATE: 9-2-22  
LOCATION: 208 Barton Springs rd  
BILL TO: Lone Star River Boat  
TIME IN: 11:15 TIME OUT: 11:45 TOTAL TIME: 30m

SOLD BY	CASH	CHECK	CHARGE	ON ACCOUNT	P.O. #	DESCRIPTION	AMOUNT
						PUMP SEPTIC TANK	= 315
						EXT PUMPING TIME	=
						DIGGING TIME	=
						EXT GALLONS	=
						SYSTEM TYPE CONV. <input type="checkbox"/> LPD. <input type="checkbox"/>	=
						TANK SIZE GAL @	=
						AEROBIC BRAND	=
						OTHER	=
						SERVICE CALL	=
						PROPER WATER LEVEL ( ) YES ( ) NO	
						INLET TEE OK ( ) YES ( ) NO	
						OUTLET TEE OK ( ) YES ( ) NO	
						TANK DAMAGE ( ) YES ( ) NO	
						SYSTEM FAILURE ( ) YES ( ) NO	
						COMMENTS	
						SUB TOTAL	315
						TAX	25.99
						TOTAL	340.99

Thank You

\$25.00 RETURN CHECK FEE

TERMS: Due Upon Receipt

X

SIGNATURE: I hereby acknowledge and accept satisfactory work as described above.





# Waste Tracking Form

No. 57204

## Generator Information

Generator Name: Lone Star River Back

Address: 708 Barton Springs County: Texas Telephone: \_\_\_\_\_

This waste was removed from my:  Grease Trap  Septic Tank  Other \_\_\_\_\_ (Specify)

Grit Trap  Chemical Toilet

OR This waste is:  Sewer Sludge My waste tank or trap holds up to \_\_\_\_\_ gallons.

Water Treatment Sludge The transporter removed a total of 200 gallons.

Date of last pumping: \_\_\_\_\_

As the generator's representative, I certify that this waste contains no hazardous materials, was removed from this address on 9/28/27 at 11:30  a.m.  p.m., and is to be transported to a facility that the Texas Commission on Environmental Quality has authorized to receive these wastes.

Generator Name (printed) FRED DUBY Generator's Signature [Signature]

## Transporter Information

Business Name: Sellman TCEQ Registration Number: 26247

Address: 830 Kelly Small Ln GBRA Permit Number: 17

Telephone: 312-0007 Vehicle Capacity: 3500 gallons

Truck License Number: DPN-1210

## Grease Trap Conditions

INVOICE # 54148  
DATE: 9-28-27

**LOPEZ & MORRIS LLC**  
Sellman Septic Services

P.O. Box 828 Kyle, TX 78640  
Main Line: 512-312-0002

BILL TO: Lone Star  
708 Barton Springs  
LOCATION: \_\_\_\_\_

TIME IN: 11:30 TIME OUT: 12:00 TOTAL TIME: 30m

SOLD BY	CASH	CHECK	CHARGE	ON ACCOUNT	P.O. #	DESCRIPTION	AMOUNT
						PUMP SEPTIC TANK	
						EXT PUMPING TIME	<u>70m</u>
						DIGGING TIME	
						EXT GALLONS	
						SYSTEM TYPE	
						TANK SIZE	
						AEROBIC BRAND	
						OTHER	
						SERVICE CALL	
						PROPER WATER LEVEL	
						INLET TEE OK	
						OUTLET TEE OK	
						TANK DAMAGE	
						SYSTEM FAILURE	
						COMMENTS	
						SUB TOTAL	
						TAX	
						TOTAL	

Thank You

\$25.00 RETURN CHECK FEE

TERMS: Due Upon Receipt

X SIGNATURE: I hereby acknowledge and accept satisfactory work as described above.





# Waste Tracking Form

No. 57211

## Generator Information

Generator Name: Lone Star River Boat  
Address: 208 Boda Spring County: Texas Telephone: \_\_\_\_\_

This waste was removed from my:  Grease Trap  Septic Tank  Other \_\_\_\_\_ (Specify)  
 Grit Trap  Chemical Toilet

OR This waste is:  Sewer Sludge My waste tank or trap holds up to \_\_\_\_\_ gallons.  
 Water Treatment Sludge The transporter removed a total of 200 gallons.  
Date of last pumping: \_\_\_\_\_

As the generator's representative, I certify that this waste contains no hazardous materials, was removed from this address on 10/25/22 at 11:  a.m.  p.m., and is to be transported to a facility that the Texas Commission on Environmental Quality has authorized to receive these wastes.

Generator Name (printed) FRED DUFFY Generator's Signature

## Transporter Information

Business Name: Sellman TCEQ Registration Number: 26247  
Address: 588 S Terrellville GBRA Permit Number: 17  
Telephone: 312-0002 Vehicle Capacity: 3309 gallons  
Truck License Number: DPN-1210

## Grease Trap Conditions

INVOICE # 34346  
DATE: 10-25-22

**LOPEZ & MORRIS LLC**  
Sellman Septic Services

P.O. Box 828 Kyle, TX 78640  
Main Line: 512-312-0002

BILL TO: Lone Star River Boat  
LOCATION: 208 Boda Spring

TIME IN: 11:00 TIME OUT: 11:30 TOTAL TIME: 30m

SOLD BY	CASH	CHECK	CHARGE	ON ACCOUNT	P.O. #	DESCRIPTION	AMOUNT
						PUMP SEPTIC TANK	=
						EXT PUMPING TIME HRS @	=
						DIGGING TIME HRS @	=
						EXT GALLONS GAL @	=
						SYSTEM TYPE CONV. <input type="checkbox"/> LPD. <input type="checkbox"/>	=
						TANK SIZE GAL @	=
						AEROBIC BRAND	=
						OTHER	=
						SERVICE CALL	=
						PROPER WATER LEVEL ( ) YES ( ) NO	
						INLET TEE OK ( ) YES ( ) NO	
						OUTLET TEE OK ( ) YES ( ) NO	
						TANK DAMAGE ( ) YES ( ) NO	
						SYSTEM FAILURE ( ) YES ( ) NO	
COMMENTS							
SUB TOTAL							340.00
TAX							0.00
TOTAL							340.00

Thank You

\$25.00 RETURN CHECK FEE

TERMS: Due Upon Receipt

X SIGNATURE: I hereby acknowledge and accept satisfactory work as described above.



## **Appendix 4. Lady Bird Lake Capacity Report, 2022**



# Lady Bird Lake Capacity Report

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## Introduction

Lady Bird Lake is one of Austin's most treasured environmental and municipal resources. The lake, more correctly classified as a reservoir, was created by the impoundment of the Colorado River by the Longhorn Dam in 1960. Originally called Town Lake, the lake was renamed Lady Bird Lake in 2007 in honor of Lady Bird Johnson and her conservation efforts focused on the lake and the surrounding trail. The water level in Lady Bird Lake, which fulfills both recreational and flood-control purposes, is maintained at a fairly constant level due to (i) inputs from Lake Austin (via the Tom Miller Dam), Barton Creek, Bouldin Creek, and Waller Creek, and (ii) the activity of both passive flow and flood gates on Longhorn Dam. The lake has a reported surface area of 471 acres and maximum depth of 18 feet. The flow-through nature of the reservoir introduces both resilience and complexity in interpreting environmental impacts and accumulations. The Ann and Roy Butler Hike and Bike Trail forms a 10.1-mile-long loop along the shoreline of Lady Bird Lake, which is well vegetated for most of its circumference. The mostly-flat trail connects several park areas, including Roy G. Guerrero Colorado River Metropolitan Park, Festival Beach, Butler Park, Vic Mathias Shores, and Zilker Metropolitan Park. Trail extensions and bridges enhance connectivity and create alternate routes for users.

Lady Bird Lake and the Butler Hike and Bike Trail attract a high number of visitors, estimated at 5 million per year. Popular water recreation activities on Lady Bird Lake include kayaking, paddleboarding, canoeing, fishing, and rowing. Gas-powered boats are banned from the lake but electric-powered boats with engine capacity of 5 horsepower or less are allowed with City permission. Swimming is banned, as is diving or fishing from the bridges that span the lake. The Butler trail attracts runners, walkers, bikers, and visitors accessing the park areas for picnics, sports, nature activities, and socializing. The volume of visitors to Lady Bird Lake and the breadth of activities conducted on or near the water present a significant management task for the City of Austin's Parks and Recreation Department (PARC), which is charged with the stewardship of Austin's 300+ parks and green spaces.



PARD directly manages Lady Bird Lake concessionaires, events, and partnerships, and coordinates with the Watershed Protection Department, Texas Parks and Wildlife Department, and Austin Police Department for issues related to water quality, water safety, erosion, habitat quality, and enforcement. An 11-member Parks and Recreation Board advises the city council and city manager on matters relevant to PARD operations. In October 2022, responsibility for the management of the Butler Trail and the surrounding parkland was transferred to the Trail Conservancy (formerly the Trail Foundation), a 501(c)(3) which has played a long-term role in developing and maintaining the trail in partnership with PARD. Anticipating the continued popularity of Lady Bird Lake in a rapidly growing city, PARD, and the Parks and Recreation Board, sought to better understand the impact of human activity on the lake by commissioning this report.

Specifically, PARD asked the research team to define a carrying capacity for Lady Bird Lake and explore issues related to managing carrying capacity. The carrying capacity of a lake has several overlapping definitions. The *ecological carrying capacity* of an environment refers to the number of organisms that can be supported in that without deleterious ecological consequences. The *recreational carrying capacity* of a body of water is based on the number of watercraft or level of shoreline development that can be supported without ill effects on users, water, and environment. *Spatial or facility carrying capacity* focuses on whether there is sufficient physical space for safe watercraft operations, water access, and parking. *Experiential or social carrying capacity* references user experience and perception of crowding. We set out to explore the carrying capacity of Lady Bird Lake from a combination of these perspectives. We conducted user surveys and interviews, a watercraft census, a shoreline habitat assessment, and water quality testing. Based on these data, we analyze Lady Bird Lake's status with respect to carrying capacity, identify the metrics need to continue monitoring carrying capacity as a dynamic measure of lake health, and recommend several courses of action for PARD to consider addressing potential challenges to the lake's integrity.

## **Methodology**

### **User Survey**

An online survey was designed to assess the experiences and perceptions of Lady Bird Lake users. The study included 13 items about user experience, 11 items about concerns and threats to the lake, 3 questions specific to business owners, 3 open-ended responses, and 9 demographic questions. The survey, available in English and Spanish, was distributed to current Lady Bird Lake concessionaires, who were provided with a link, QR code, and flyers for distribution to their customers. The survey was also distributed through various groups affiliated with the lake and trail, including outdoor recreation groups, education groups, and



community groups. PARD and the Texas Parks and Wildlife Department distributed the survey through their networks, including, for PARD, social media and website. Survey participation was incentivized with the opportunity to win a gift card. Open-ended questions provided a platform for participants to give answers outside the survey options. The survey was open for 68 days, and 745 results were recorded. After the data cleaning process which eliminated incomplete entries and entries that failed quality control (e.g., failure to correctly answer a screening question, survey completed in under two minutes), 622 unique responses were used for analysis in Excel.

### **Interviews**

Interviews were conducted to examine the survey themes of user experience, perception, and threat identification with more depth through seven main questions and three ancillary/probing questions. 23 individuals were interviewed. Potential interview subjects were identified among the survey respondents who responded positively to an item about their willingness to participate in follow-up. We also interviewed key City staff. The interviews were divided among four researchers. Interview participation was incentivized with a gift card. Interview subjects were provided with a consent letter; they could sign physically or via verbal consent. Interviews were conducted via Zoom and transcribed via Otter and by hand. Interview transcripts were analyzed for relevant themes by hand and via a word-frequency method in Nvivo.

### **Watercraft Census**

Both an aerial census and a ground-based census were completed. For the aerial census, drone videos of the entirety of the Lake were taken on May 29, June 17, June 18, and July 2, 2022, during peak use hours of 11 am – 3 pm. The drone was operated by a licensed operator who collected 4900 K resolution video footage from a height of 150-250 feet above the surface, depending on wind conditions. Watercraft were counted in each of 6 lake segments identified by bridge or dam boundaries to allow for ease of counting. Acreage for each segment was calculated from satellite map polygons; segments were defined by the downstream borders of the bounding elements, thus, the Congress to I-35 segment began at the downstream border of the Congress Avenue bridge and terminated at the downstream border of the I-35 bridge. Aerial counts were complemented by ground-based boat counts collected from 6 observation points. Observations were made on 22 days in June, 23 days in July, 23 days in August, and 20 days in September 2022, with the earliest observation on 10 June and the latest on 30 Sept. Boat counts were taken randomly throughout the day and during different days of the week. To improve accuracy, all counts were limited to within 125 yards of the access point (i.e sight distance at which craft types were distinguishable by eye). Watercraft were classified as either kayak, paddleboards, motorboats, canoes, or other. The classification of watercraft was based



on design and intended purpose, not the activity engaged at the time of the observation. For example, some paddleboards were observed with individuals sitting and rowing as though they were canoes. However, this observation would be counted as a paddleboard and not a canoe, its intended use.

### **Parking Lot Census**

Parking space occupancy was tabulated for 20 parking lot areas around Lady Bird Lake. Lots were a combination of free and paid lots. Counts were taken on two non-consecutive Wednesdays and two non-consecutive Saturdays in June and July 2022. The parking lot count was conducted as a measure of lake facility capacity. However, it must be noted that several of the parking lots are located around downtown Austin and users may be accessing areas other than the lake. Although the parking lot count is helpful to assist with understanding lake capacity, it should not be used alone to make critical decisions.

### **Lake Water Testing**

Water samples were collected from three locations – approx. 100 feet south of the southernmost tip of Red Bud Isle (30.2872687, -97.7860304), approx. 1600 feet upstream of Lou Neff Point (30.2693612, -97.7660811) and approx. 500 feet downstream of Lou Neff Point (30.2663190, -97.7591190). The Red Bud site was chosen as a baseline most representative of input from Lake Austin. This site is adjacent to the Red Bud Isle site 5 used to calculate the Austin Lake Index by the Watershed Protection Department. The Lou Neff Point sites were chosen as this was the area of greatest congestion apparent from aerial boat census. Sampling was conducted two days before, during, and after a peak use Saturday at the two Lou Neff sites, after a holiday weekend at the two Lou Neff sites, and during a low use period at Red Bud Isle. Samples were collected at a depth of 0.3 m below the surface. Temperature and pH readings were taken at the time of collection. Samples were stored at 4°C, then delivered to the Lower Colorado River Authority Environmental Laboratory Services Lab for detection of: calcium, iron, magnesium, potassium, sodium, manganese, bromide, chloride, fluoride, nitrate (as N), nitrate/nitrite as N, nitrite (as N), ortho-phosphate (as P), sulfate, chlorophyll-a, pheophytin-a, bicarbonate alkalinity, carbonate alkalinity, hydroxide alkalinity, phenolphthalein alkalinity, total alkalinity (CaCO<sub>3</sub>), total hardness (as CaCO<sub>3</sub>), specific conductance, total dissolved solids (TDS), silica as SiO<sub>2</sub>, and *E. coli* fecal coliform bacteria.

### **Shoreline Assessment**

Habitat quality was assessed for ten access sites following the Austin Lake Index methodology developed by the Watershed Protection Department. Briefly, visual assessment of the substrate type (i.e. bedrock, boulder, cobble, gravel, sand, silt/clay/mud, woody debris, vegetation) and abundance and vegetation type (i.e. large canopy tree, small canopy tree, woody shrub



understory, herbaceous understory, woody ground cover, herbaceous ground cover, invasives) and abundance was made for the littoral, shoreline, and riparian portions of the shoreline. Three investigators made independent assessments, then conferred on site to reconcile discrepancies, if any. The abundance values were multiplied by a ranking factor reflecting desirability of each component as set forth in the Austin Lake Index methodology and summed for a site-specific score. Sites were selected to examine high human use areas.

### **Environmental Justice Profile**

Analysis of the neighborhoods bounding Lady Bird Lake was conducted with the Environmental Protection Agency's EJ SCREEN. Population demographics, environmental vulnerabilities, and social vulnerabilities were compiled for residents living within 0.25, 0.5, and 1 miles of the Lady Bird Lake shoreline, and for residents of census block groups for which a portion of the area fell within 0.25 miles of the Lady Bird Lake shoreline. EJ SCREEN provides data on eleven environmental indicators (particulate matter 2.5 $\mu$ M, diesel particulate matter, air toxics cancer risk, air toxics respiratory index, lead paint, and proximity to hazardous waste sites, Risk Management Plan sites, Superfund sites, traffic, and underground storage tanks) and seven demographic indicators that denote potential vulnerability to environmental harm (race/ethnicity, education level, employment status, income level, linguistic isolation, the number of individuals below the age of 5, and the number of individuals above the age of 64).

### **Unpermitted Activity**

311 data available from the City of Austin Open Data Portal, social media advertisements, and information from PARD staff was used to examine the extent of unpermitted vendor activity on Lady Bird Lake.

## **Results and Discussion**

### **Watercraft Census**

Results of the aerial watercraft census are presented in Table 1 and Figure 1. Over the four days recorded, the total watercraft on the lake during the aerial survey ranged from 188 boats on June 17, 2022 (a Friday) to 1100 boats on July 2, 2022 (the Saturday of July 4 weekend), and the lake wide acreage/boat ranged from 0.40 acres/boat on July 2 to 2.34 acres/boat on June 17. Comparing dates, the highest totals occurred on Saturdays (June 18 and July 2), regardless of whether the Saturday was associated with a holiday. The Sunday total count was 40% lower than the average count for the two Saturdays, and the Friday count was 83% lower. High use on the weekend is consistent with the average user, who may not have time on a weekday to spend hours recreating on the lake.



The distribution of watercraft was not uniform across the lake, with the greatest concentration of boats in the segment of the lake between Mopac and Lamar Ave regardless of sampling date. Boat density is typically expressed as acreage/boat (Table 1) to reflect the spatial requirements of distinct types of boats and uses. However, it can also be helpful to examine boat density as boats/acre to facilitate visualization. This calculation is depicted in Figures 1 and 2 below. The higher concentration of boats in the Mopac to Lamar segment relative to the rest of the lake reflects the concentration of access points and amenities in this area, as well as the large confluence of vessels that aggregate at the mouth of Barton Creek.

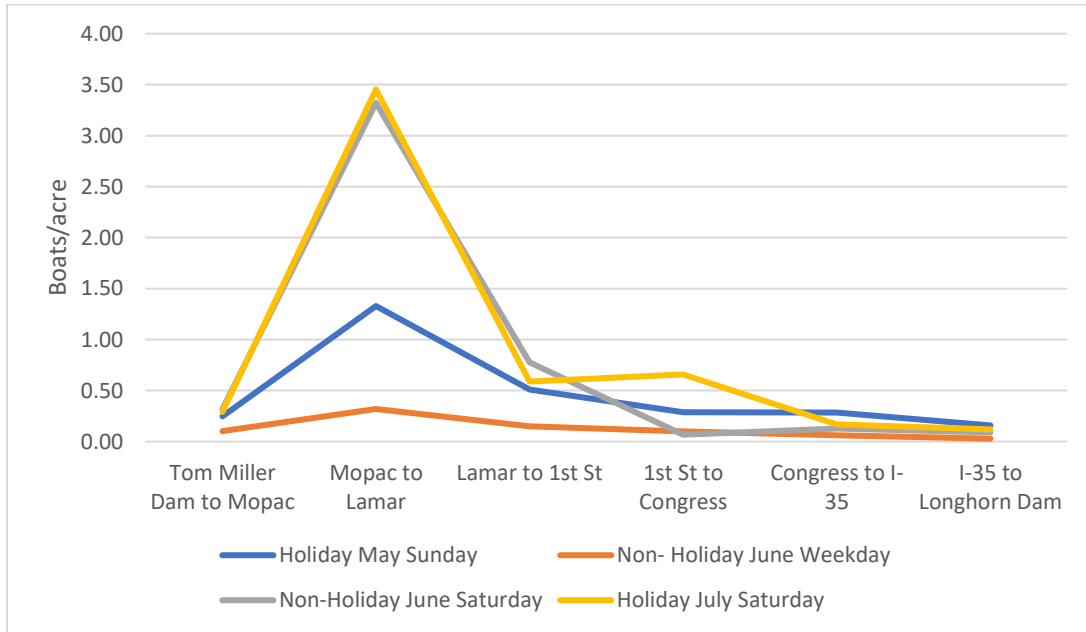
**Table 1: Results of aerial watercraft count**

Date	Lake region	Boat count	Acres/ boat
5/29/2022 (Sunday)	Tom Miller Dam to Mopac	92	0.91
	Mopac to Lamar	291	0.19
	Lamar to 1 <sup>st</sup> St	65	0.52
	1 <sup>st</sup> St to Congress	17	0.91
	Congress to I-35	79	0.93
	I-35 to Longhorn Dam	111	1.60
	Lady Bird Lake Total	655	0.67
6/17/2022 (Friday)	Tom Miller Dam to Mopac	38	2.20
	Mopac to Lamar	70	0.78
	Lamar to 1 <sup>st</sup> St	19	1.78
	1 <sup>st</sup> St to Congress	6	2.57
	Congress to I-35	17	4.31
	I-35 to Longhorn Dam	20	8.89
	Lady Bird Lake Total	188	2.34
6/18/2022 (Saturday)	Tom Miller Dam to Mopac	119	0.70
	Mopac to Lamar	727	0.08
	Lamar to 1 <sup>st</sup> St	99	0.34
	1 <sup>st</sup> St to Congress	4	3.86
	Congress to I-35	35	2.09
	I-35 to Longhorn Dam	64	2.78
	Lady Bird Lake Total	1048	0.42
7/2/2022 (Saturday)	Tom Miller Dam to Mopac	109	0.77
	Mopac to Lamar	756	0.07
	Lamar to 1 <sup>st</sup> St	75	0.45
	1 <sup>st</sup> St to Congress	39	0.40
	Congress to I-35	47	1.56
	I-35 to Longhorn Dam	84	2.12
	Lady Bird Lake Total	1110	0.40

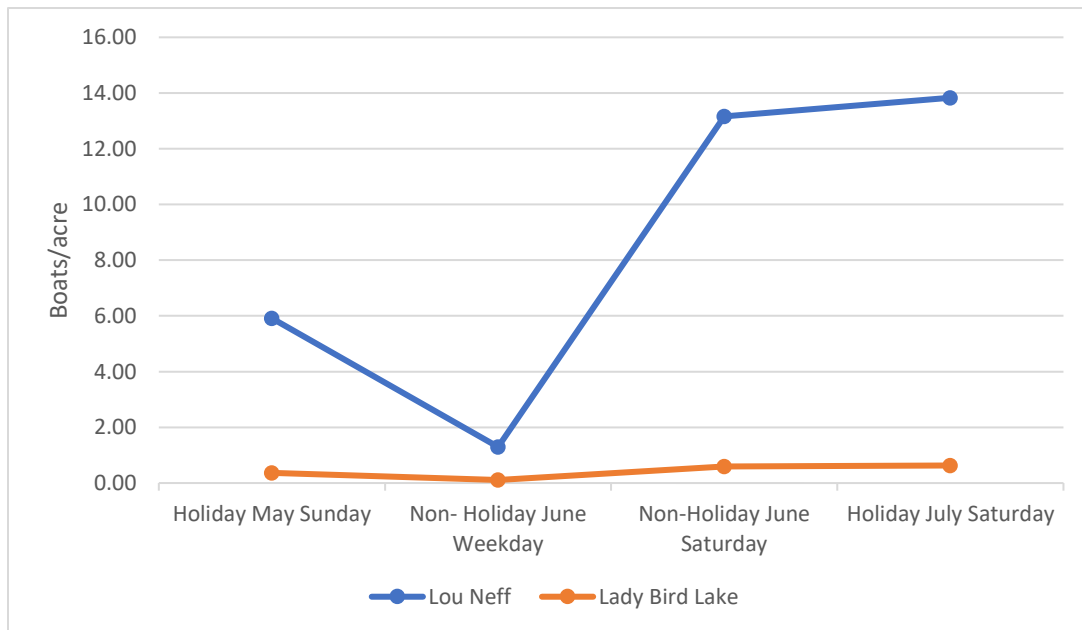


On each census date, most of the watercraft in the Mopac to Lamar segment were most concentrated around the mouth of Barton Creek near Lou Neff Point (Figure 1). The Lou Neff boats comprised 178 of the 291 in the Mopac-Lamar segment (61%) on May 29, 39 of 70 (56%) on June 17, 396 of 727 (54%) on June 18, and 416 of 756 (55%) on July 2. The watercraft density, expressed as boats/acre, of this area was about 12-22 times higher than the average density of the entire lake on the same day (Figure 2).

**Figure 1. Watercraft density by lake segment**



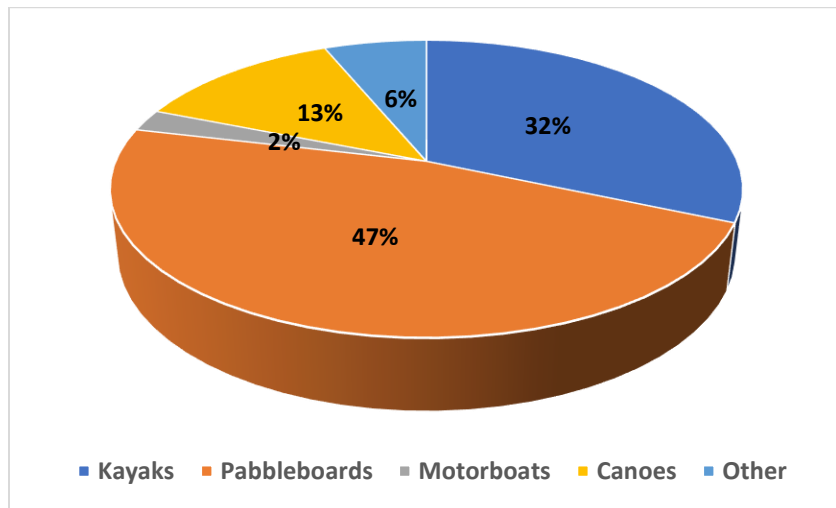
**Figure 2. Watercraft density at Lou Neff Point and Lady Bird Lake**





A ground-based count was conducted to complement the aerial count, with a particular focus on tabulating non-peak days and distinguishing watercraft type. A total of 150 separate counts were taken from six observation points: Texas Rowing Center boat ramp, Lamar Bridge, Congress Bridge, Holiday Inn Boat Ramp, Epic SUP boat ramp, and Festival Beach boat ramp. 115 counts were taken on weekdays, 22 on Saturdays, and 13 on Sundays. Counts were limited to the sight distance at which craft were distinguishable, typically 100-125 yards. Paddleboards were the most commonly observed craft at 2566 of 5438 observed craft over the 150 counts (or 47% of pooled observations) and kayaks the next most frequent, at 1718 of observed craft (32%).

**Figure 3. Total observed watercraft by type of craft**



The number of craft observed during any count ranged from 7 to 65, with an average of 36 watercraft observed /count (standard deviation = 12.5, variance = 158.3). Combining counts for all observation points yielded an average of 1.91 acres/boat, which is similar to the weekday aerial census count-based calculation of 2.34 acres/boat. Since most of the ground observations were taken on weekdays, it is understandable that the average skews towards lighter use days.

A slightly higher number of watercraft per count were observed for counts taken between 3 and 6 pm (Table 2) compared to counts taken between 9 am and 3 pm. This is consistent with a weekday use pattern that favors after-work and after-school use.

**Table 2. Ground based count totals, by time of observation and craft type**

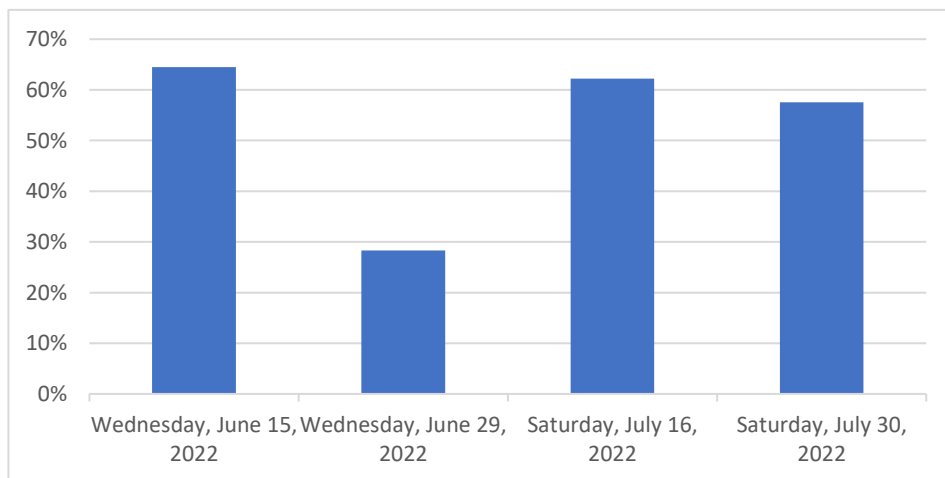
	Total watercraft	Number of counts	Watercraft/ count	Paddleboard count	Percent paddleboards	Kayak count	Percent kayaks
9- 10:59 am	1007	30	33.6	446	44.3%	342	34.0%
11 am – 2:59 pm	1795	51	35.2	834	46.5%	591	32.9%
3 – 5:59 pm	1288	34	37.9	661	51.3%	331	25.7%
6 – 8:00 pm	1348	34	39.6	625	46.4%	454	33.7%

Previous studies of spatial carrying capacity set optimal values for boat density of canoes and kayaks at 1.3 acres/boat (Warren and Rea, 1989) or 1 acre/boat (New York State Office of Parks and Recreation). Jackson set a much higher value of 8 acres/boat, but included sailboats in the same category as kayaks and rowboats. The observed boat density of Lady Bird Lake in many segments does not compare favorably to the 1-1.3 acres/boat benchmark. On July 17, a weekday, there was excellent boat density across most regions of the lake except the Mopac to Lamar segment, with 0.78 acres/boat. On May 29, a holiday weekend Sunday, most regions were close to favorable values, except for the Mopac to Lamar and Lamar to First segments, with densities of 0.19 and 0.52 acres/boat, respectively. This pattern is even more apparent on the two Saturdays. The average Saturday density is 0.075 acres/boat for the Mopac to Lamar segment, 0.395 for the Lamar to First segment, and 0.735 for the Tom Miller to Mopac segment. It is worth noting that even on these peak days, the density in the Congress to Longhorn Dam segment remains favorable.

### Parking Lot Counts

Four separate parking lot counts were taken, two on Wednesdays and two on Saturdays. A total of 841 parking lot spaces were observed in 20 lots. Six lots were located East of I-35 (239 spaces), three were located around Barton Creek (140 spaces), and 16 were located between Mopac and First street (456 spaces). The average parking lot usage rate over all four counts was 53%, or 447 vehicles occupying spaces. The number of parking spaces in use ranged from 238 to 542 parking spaces. The percentage capacity usage ranged from 28% to 64%. There was no appreciable difference in percent usage if lots were grouped to compare among lots east of I-35, lots adjacent to Barton Spring, and lots adjacent to the south shore of the lake in the Mopac to First segment. The lot count was a sampling of lots and did not include street parking or unmarked parking areas, such as the gravel lot off Lou Neff Road.

**Figure 4. Parking lot percent usage**





## Lake User Survey

622 responses were analyzed (see methods for details of data cleaning). A majority of the respondents were male (47.7%) and identified as non-Hispanic white (68.5%). Both categories are within 5% of the city's demographics. Of those surveyed, 20.4% identified as veterans, while

**Table 3. Demographic characteristics of survey respondents**

Race/Ethnicity	Number	Percentage
African American/Black	28	4.5%
Alaskan Native	3	0.5%
American Indian	28	4.5%
Asian American	10	1.6%
Hispanic/Latinx	33	5.3%
MENA	1	0.2%
More than One Race	65	10.5%
Native Hawaiian	2	0.3%
Non-Hispanic White	426	68.5%
Other	5	0.8%
Decline to Answer	21	3.4%
Total	622	100.0%

Gender Identity	Number	Percentage
Female	250	40.2%
Male	297	47.7%
Nonbinary	8	1.3%
Transgender	12	1.9%
Other	2	0.3%
Decline to Answer	15	2.4%
Total	584	100.0%

Veteran Status	Number	Percentage
No	439	75.2%
Yes	119	20.4%
Decline to Answer	26	4.5%
Total	584	100.0%

Disability Status	Number	Percentage
No	473	81.0%
Yes	93	15.9%
Decline to Answer	18	3.1%
Total	584	100.0%

Employment Status	Number	Percentage
Employed full-time	404	70.3%
Employed part-time	81	14.1%
Retired	56	9.7%
Student	17	3.0%
Unemployed	17	3.0%
Decline to Answer	0	0.0%
Total	575	100.0%

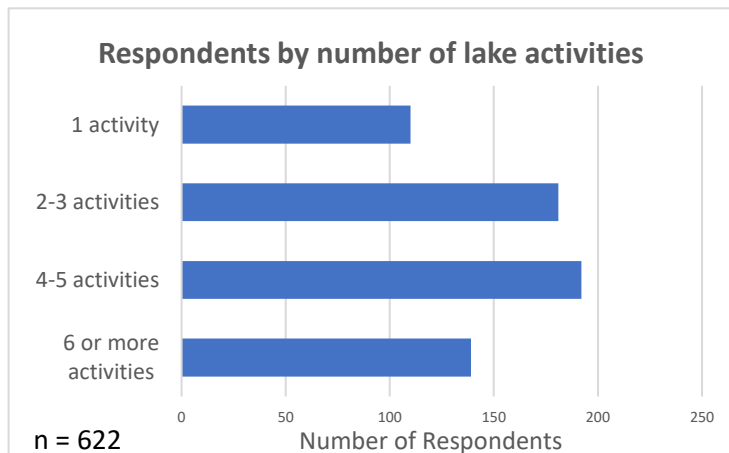
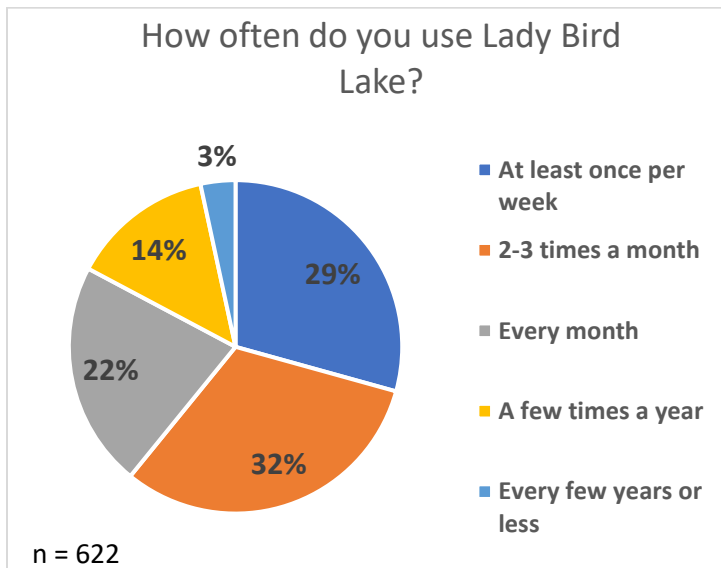
Housing Situation	Number	Percentage
Own a home/apt/condo	382	65.4%
Rent a home/apt/condo	159	27.2%
Stay with someone	31	5.3%
Unhoused	2	0.3%
Decline to Answer	10	1.7%
Total	584	100.0%

Annual Household Income	Number	Percentage
Less than \$10,000	4	0.7%
\$10,000 to \$19,999	15	2.6%
\$20,000 to \$29,999	39	6.7%
\$30,000 to \$39,999	43	7.4%
\$40,000 to \$49,999	45	7.7%
\$50,000 to \$74,999	98	16.8%
\$75,000 to \$99,999	123	21.1%
\$100,000 to \$199,999	118	20.2%
More than \$200,000	44	7.5%
Decline to Answer	54	9.3%
Total	583	100.0%

15.9% indicated they have a disability. Most (70.3%) of the participants are employed full-time, while 65.4% own their house, apartment, or condo. The results showed that 65.7% of the participants make at least \$50,000, while 17.3% make less than \$40,000.

Most survey respondents are frequent users of the lake, with 29% using it at least once a week, and 32% using it 2-3 times a month. Another 22% use it monthly. 88.6% of respondents participated in 2 or more activities at Lady Bird Lake. The most frequently reported activity was walking/hiking, with 256 of the 622 respondents indicating that they participated in this activity, closely followed by kayaking, relaxing outdoors, cycling, and dog-related activities.

**Figure 5. Lake use frequency (a), preferred activities (b), and number of activities (c) among survey respondents (n = 622)**



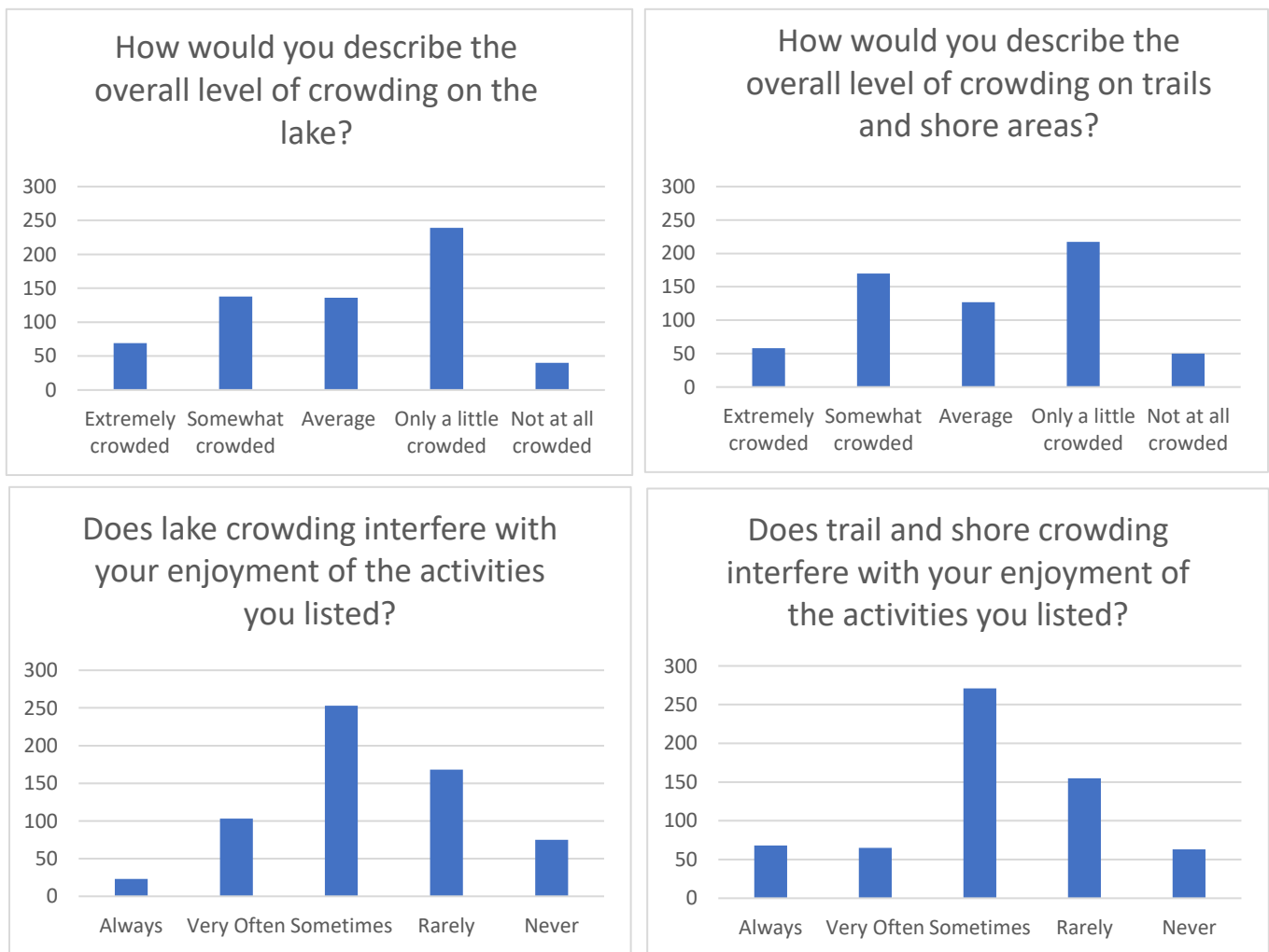
Activity	Respondents
Walking/Hiking	256
Kayaking	206
Relaxing Outdoors	194
Cycling	181
Dog-related Activities	169
Birding	154
Observing Wildlife	153
Kid's Activities	150
Running	140
Socializing	131
Fishing	111
Paddleboarding	109
Nature Photography	109
Canoeing	102
Floating/Tubing	93
Rowing	57
Sports	56
Sunbathing	40
Other	22
Other types of boating	17



In terms of the respondents' relationship to the lake, 114 respondents characterized themselves as business owners, 172 as government employees, 287 as environmental advocates, 133 as investors, 163 as naturalists or scientists, and 117 as tourists enjoying Austin. (Respondents could select multiple options.)

33.3% of respondents characterized the lake as extremely or somewhat crowded while 36.5% characterized the shore and trail in this way. 42.9% characterized the lake and 44.9% characterized the shore and trails as only a little crowded or not at all crowded. Thus, the percentages are very comparable for the lake versus the trails and shore areas. Crowding sometimes interfered with lake enjoyment for 40.7% of respondents and shore/trail enjoyment for 43.6% of respondents. 21.4% of respondents indicated that lake crowding interfered with their enjoyment always or often and 35.1% rarely or never. With respect to shore and trail

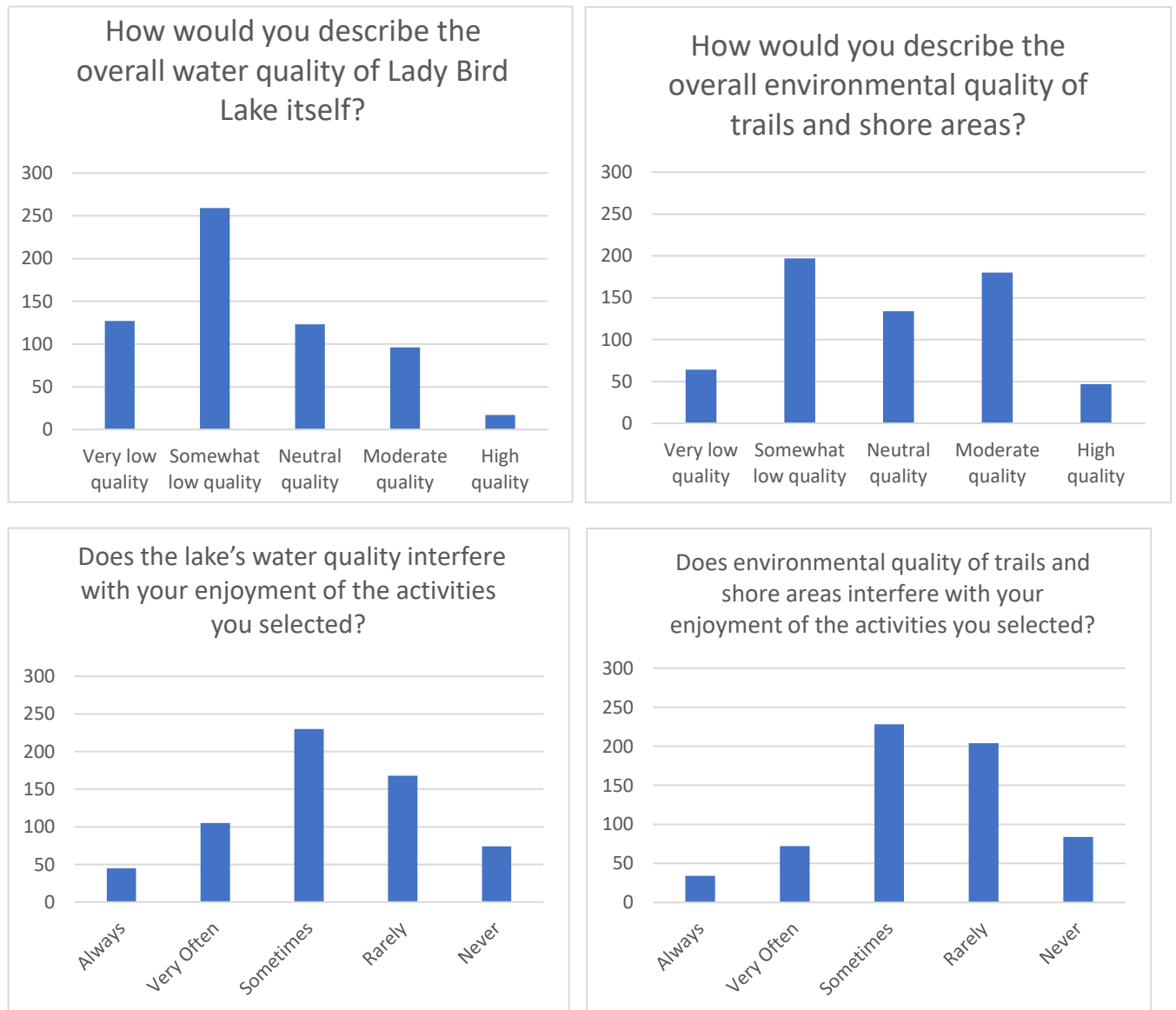
**Figure 6. Responses to lake crowding questions (n = 622)**



crowding, 22.7% fell into the always or often categories and 39.8% into the rarely or never groups. Thus, 61.4% experienced a loss of enjoyment due to lake crowding at least some of the time, and 60% experienced a loss of enjoyment due to shore and trail crowding at least some of the time.

Only 2.7% of respondents believe the overall water quality level in Lady Bird Lake is high, while 62.1% find it to be very low or somewhat low quality. 38.9% of respondents report that lake water quality rarely or never interferes with their enjoyment. If responses are filtered for respondents who reported participating in a water-based activity, such as canoeing, fishing, paddleboarding, or rowing, the percentage of “rarely” or “never” responses is similar.

**Figure 7. Responses to environmental quality questions (n = 622)**

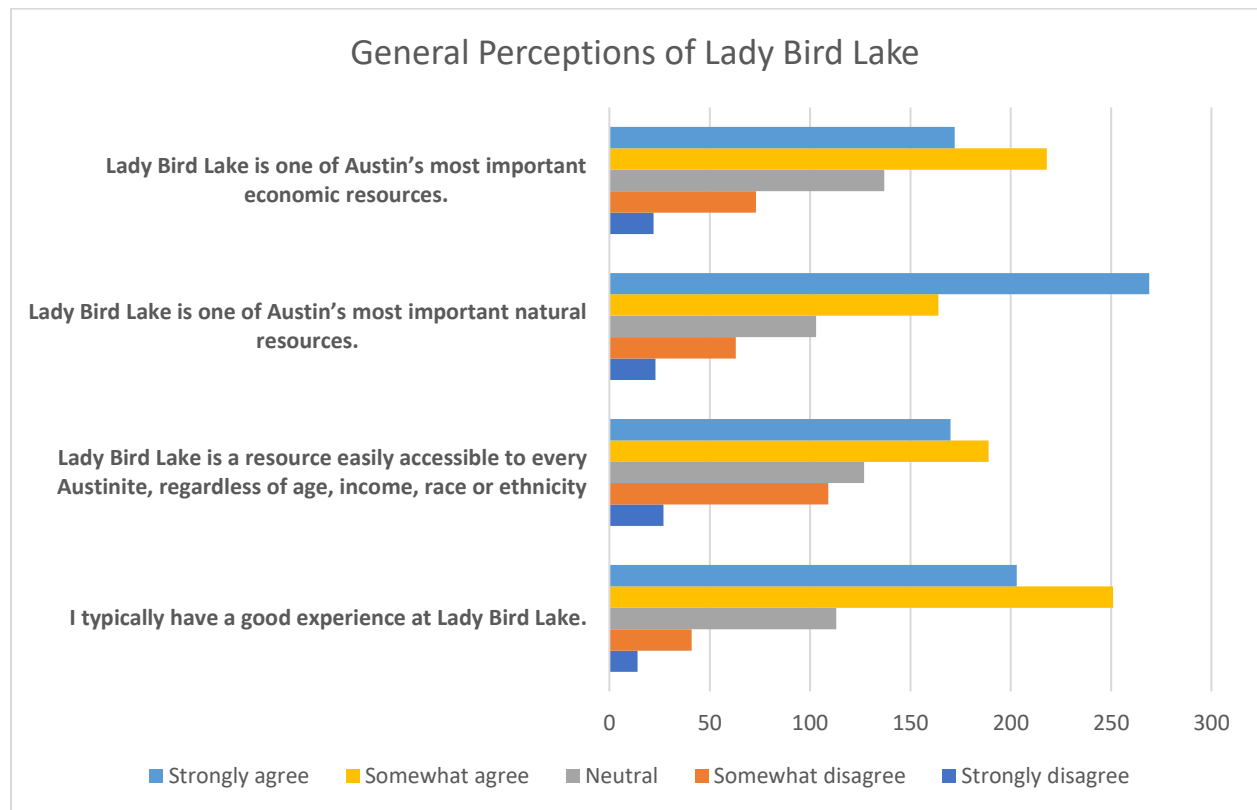




Interestingly, if filtered for kayakers, the “rarely” or “never” percentage jumps to 52.0%. The most common response across all respondents was that water quality sometimes interferes with enjoyment (36.9%). This pattern of responses is similar to that for loss of enjoyment due to crowding.

Respondents rated the environmental quality of the shoreline and trails as being slightly higher than the water quality, with a greater share of respondents indicating moderate environmental quality at 28.9%. 7.5% of respondents rated the environmental quality as high and 42.0% as very low or somewhat low. Enjoyment of lake and shore areas was slightly higher than for the water quality item, with 46.3% of respondents reporting that environmental quality rarely or never interferes with their enjoyment. It sometimes interferes for 36.1% of respondents.

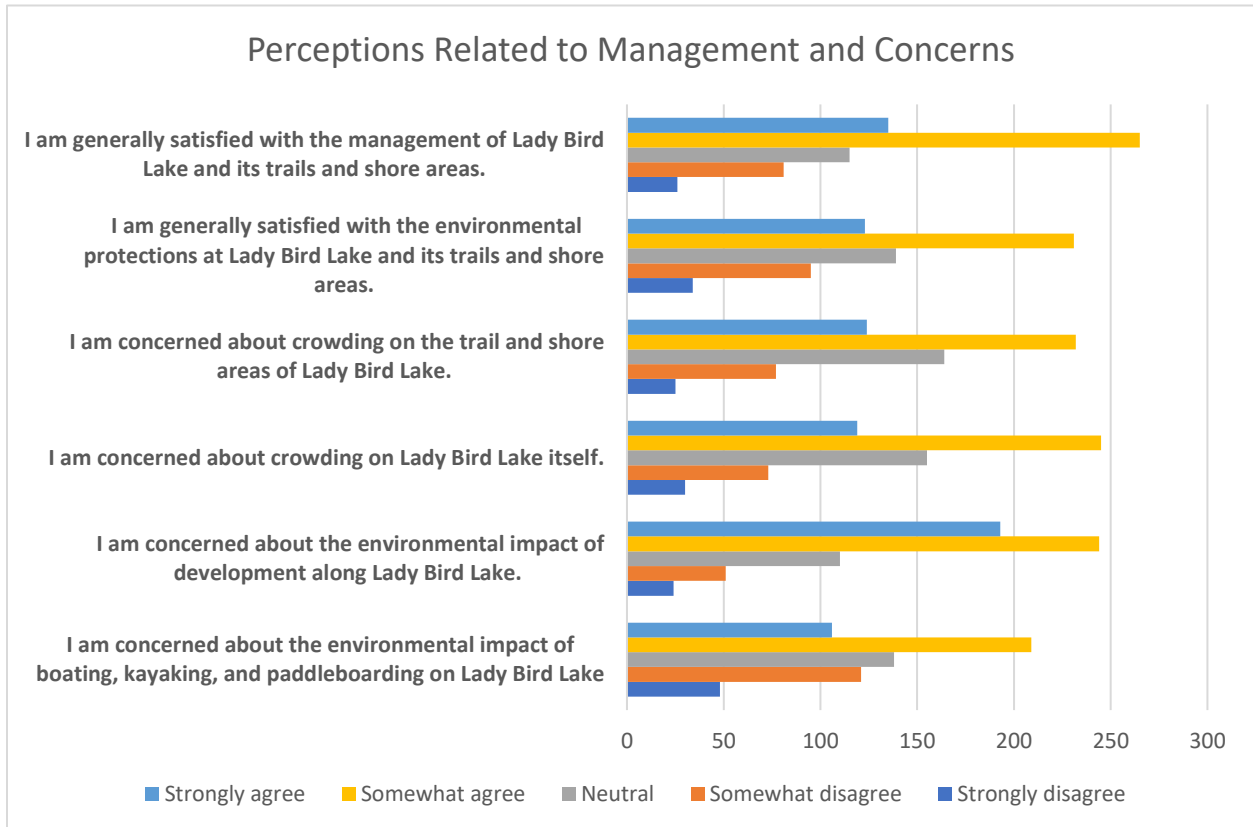
**Figure 8. Responses to general perceptions of Lady Bird Lake (n = 622)**



Among statements expressing general perceptions of the lake, the statement “Lady Bird Lake is one of Austin’s most important natural resources” garnered the most support, with 43.2% of respondents strongly agreeing. Indeed, 69.6% of respondents either strongly or somewhat agreed. The statement “I typically have a good experience at Lady Bird Lake” was similarly supported, with 73.0% of respondents strongly or somewhat agreeing. The statement with the

lowest agreement and highest disagreement is “Lady Bird Lake is a resource easily accessible to every Austinite, regardless of age, income, race or ethnicity,” with 21.8% somewhat or strongly disagreeing.

**Figure 9. Responses to management and concern items (n = 622)**



Respondents provided slightly less enthusiastic support for statements related to management and satisfaction, though the responses were still predominantly positive. 63.4% of respondents somewhat or strongly agreed with the statement “I am generally satisfied with the management of Lady Bird Lake and its trails and shore areas” and 56.9% with “I am generally satisfied with the environmental protections at Lady Bird Lake and its trails and shore areas.” However, the “somewhat” category was larger than the “strongly” category for both.

Respondents expressed the most agreement with a stated concern about the economic impact of development, with 70.3% somewhat or strongly agreeing, followed by concern with lake crowding at 58.5% and concern with trail crowding at 57.2%.



Rating of specific problems further detailed areas of concern. 57.6% of respondents indicated that algal blooms are a significant or critical problem, and 56.1% shared the same level of concern about water quality.

**Table 4. Rating of potential current problems at the lake (n = 622)**

	<b>Algal blooms</b>	<b>Boat congestion</b>	<b>Costly amenities</b>	<b>Crowding</b>	<b>Degraded habitat</b>	<b>Environ. quality</b>
<b>Critical problem</b>	23.0%	9.5%	10.6%	13.7%	17.7%	19.3%
<b>Significant problem</b>	34.6%	25.7%	21.5%	27.0%	30.7%	31.8%
<b>Average problem</b>	26.2%	37.1%	35.4%	35.5%	32.2%	31.7%
<b>Small problem</b>	12.2%	17.7%	20.4%	18.8%	14.3%	13.0%
<b>Not a problem</b>	4.0%	10.0%	12.1%	5.0%	5.1%	4.2%

	<b>Few access points</b>	<b>Inadequate parking</b>	<b>Lack of rule enforc.</b>	<b>Litter/trash</b>	<b>Loose dogs</b>	<b>Noise</b>
<b>Critical problem</b>	14.1%	16.1%	17.0%	19.1%	17.0%	10.3%
<b>Significant problem</b>	26.8%	33.0%	24.9%	32.2%	24.3%	22.5%
<b>Average problem</b>	32.6%	26.2%	32.6%	32.0%	31.5%	32.5%
<b>Small problem</b>	19.6%	16.4%	17.7%	13.8%	18.8%	20.6%
<b>Not a problem</b>	6.8%	8.4%	7.7%	2.9%	8.4%	14.1%

	<b>Personal safety</b>	<b>Poor compliance</b>	<b>Property crime</b>	<b>Water level changes</b>	<b>Water quality</b>
<b>Critical Problem</b>	12.2%	15.0%	13.3%	12.1%	21.4%
<b>Significant problem</b>	27.5%	26.8%	26.5%	22.0%	34.7%
<b>Average Problem</b>	30.7%	31.5%	32.8%	33.1%	27.8%
<b>Small problem</b>	18.8%	18.0%	19.8%	19.5%	12.2%
<b>Not a problem</b>	10.8%	8.7%	19.8%	13.3%	3.9%

To rank problems by respondent level of concern, a weighted composite score was calculated. The “critical problem” rating category was valued at 5 points and the “not a problem” category at 1. Each category’s point value was multiplied by the proportion of responses in the category and summed. Thus, the highest possible composite score (100% of respondents indicate that the issue is a critical problem) is 5 and the lowest (100% of respondents indicate no problem) is 1. The problems deemed highest concern by this ranking are water quality (3.75), algal blooms (3.6), litter trash (3.51), environmental quality (3.49), and degraded habitat (3.41). Inadequate parking (3.31) and property crime (3.30) are moderate concerns.

Respondents also rated their degree of concern with specific potential future threats to the lake. 94% of those surveyed thought that at least one of the activities listed threatened Lady Bird Lake over the next five years. Pollution was indicated as the most significant threat in the next five years with 60.3% of respondents deeming it a critical or significant threat, followed closely by population growth (57.7%), environmental degradation (56.4%), water scarcity (55.8%), and overuse (49.5%). Lost economic opportunity was rated as the least threatening, with 12% deeming it not a threat and 35.4% considering it a critical or significant threat.

**Table 5. Rating of possible future threats to Lady Bird Lake. (n = 622)**

	<b>Climate change</b>	<b>Environ. degradation</b>	<b>Inappropriate zoning</b>	<b>Increased costs</b>	<b>Lack of compliance</b>
<b>Critical threat</b>	19.6%	23.2%	22.3%	14.8%	16.4%
<b>Significant threat</b>	27.3%	33.3%	25.6%	26.2%	25.4%
<b>Average threat</b>	31.0%	28.5%	26.8%	34.6%	36.2%
<b>Small threat</b>	13.5%	10.9%	19.3%	16.9%	16.4%
<b>Not a threat</b>	8.5%	4.2%	5.9%	7.6%	5.6%

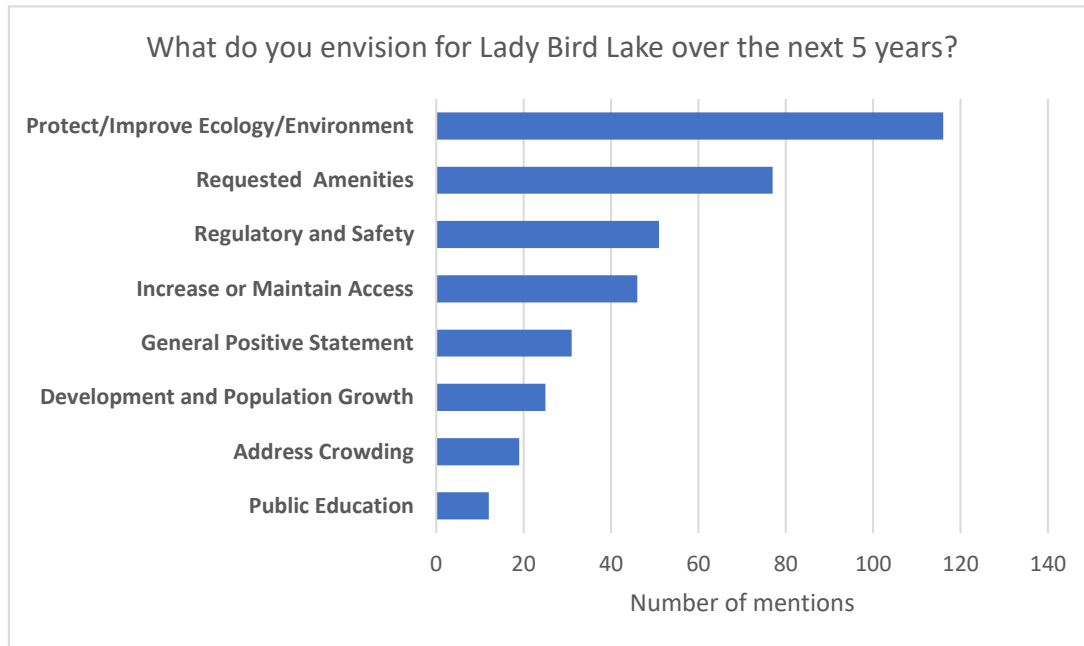
	<b>Lost economic opportunity</b>	<b>Overuse</b>	<b>Pollution</b>	<b>Population growth</b>	<b>Water scarcity</b>
<b>Critical threat</b>	11.9%	18.5%	25.7%	25.2%	25.2%
<b>Significant threat</b>	23.5%	31.0%	34.6%	32.5%	30.5%
<b>Average threat</b>	32.2%	29.3%	24.9%	27.0%	27.7%
<b>Small threat</b>	20.4%	15.6%	11.3%	12.1%	12.1%
<b>Not a threat</b>	12.1%	5.6%	3.5%	3.2%	4.5%

239 respondents replied to at least one of three open-ended questions included in the survey. Their responses were categorized based on common topics and subtopics. The first open ended question, and the one with the most responses, was “What do you envision for Lady Bird Lake over the next 5 years?” Calls to continue or improve environmental protections were the most frequent topics mentioned in these 227 responses, with 116 mentions. The most common subtopics in this category included cleaning up trash/pollution, maintaining/increasing green space, and improving/maintaining water quality. The next most frequent category of response, with 77 mentions, included requests for specific amenities or improvements to Lady Bird Lake. These were similarly subcategorized, and included requests for trail improvements/widening, separation of bike and pedestrian traffic, parking, lighting, and volunteer activities. There were 51 mentions of safety and regulatory concerns (e.g., more patrols, maintaining regulations) and 46 mentions of maintaining or increasing access (e.g., increasing trail connectivity, increasing diversity). A second open-ended question “Is there anything else you would like us to know?”



yielded 60 expressions of concern, 34 requests, 24 statements of appreciation, and 4 informational responses from 101 respondents.

**Figure 10. Categorized open-ended question responses (n = 239)**



### Interview Results

Interviews were conducted with 23 individuals. Interview subjects were ten females and 13 males, one of whom is Asian, three Black, five Hispanic, and 13 White. One subject declined to identify by race. The group included (as non-exclusive categories) four business owners, seven whose work involves the outdoors, two credentialed environmental experts, and four PARD staff who were interviewed as a group. Ten of the subjects report personal use of both the water and trails on a regular basis, with the remainder primarily using the trails and park areas. Questions prompted interview subjects to identify positive and negative attributes of the lake and share their perspectives on access points, diversity, environmental concerns (if any), economic/development concerns (if any), lake capacity, and safety. Subjects were also prompted to elaborate on any write-in responses they provided in the survey and share their perspectives on maximizing the potential of the lake and any potentially problematic lake uses.

Sentiment analysis for individual questions revealed a great deal of agreement on some of the topics listed above, with more divided results for others. 20 subjects shared environmental concerns, 1 subject had no concerns, and 2 had mixed feelings about whether there were any concerns. There were more environmental concerns expressed about the water than the trail/park areas, detailed further below. When it came to access points, 15 subjects had concerns, 7 indicated no concerns, and 1 provided a mixed response. These issues included

**Table 6. Sentiment analysis of interview responses (n=23)**

	Count of Subjects			Sentiment score
	Positive Sentiment/ Not Concerned	Negative Sentiment/ Concerned	Mixed Response	
<b>Access Points</b>	7	15	1	-2.6
<b>Capacity</b>	4	10	7	8.6
<b>Development</b>	3	7	12	-20.8
<b>Diversity</b>	4	11	7	-2.4
<b>Environment</b>	1	20	2	-30.8
<b>Safety</b>	3	13	8	-46.8

concerns about lack of access, distribution of access, and the effects of unofficial access points for environment and enforcement. On the topic of safety, 14 identified safety concerns, 3 had no safety concerns, and 7 provided mixed responses, most of which described the conditional nature of their concern (e.g., feels safe in a group but not alone). Responses to the capacity question yielded a similar pattern of responses, with 10 indicating a capacity concern, 4 reporting no capacity concern, and 7 mixed responses (e.g., capacity is only a problem in some areas, or on some days). 11 subjects shared concerns about the lack of diversity among lake users, 4 did not have concerns or observe a lack of diversity, and 7 had mixed responses (e.g., diversity efforts are improving,). On topic of economic/development concerns, 11 subjects expressed a negative response, 4 a positive response, and 7 were mixed (e.g., expressed a desire for more businesses while also maintaining environmental protections).

When interview subjects were asked about problematic activities, 18 expressed concerns: there were 6 references to electric scooters, 5 to the “brotilla,” 4 to electric bike speed, 3 to bike/pedestrian conflict, 2 to motorboats, and 2 to event congestion. The overall emotional tone of responses for each question was also analyzed with an automated software tool that scores sentiment of the responses on a scale of 100 (extremely positive in tone) to 100 (extremely negative in tone). The safety, environment, and development questions yielded the most negative language. Combining responses to all questions yielded several key themes and concepts.

Theme 1: Issues Relating to Health and Safety

Three invariant constituents and 81 references supported the theme that users have concerns relating to health and safety at Lady Bird Lake. Health concerns were frequently linked to the presence of trash or pollution. Safety concerns included enforcement, the camping ban, and water safety. Below are a few excerpts:

*The biggest concern is runoff/sewage from the city going into the lake. When it rains, it's like a toilet flushing everything into the Lake. Also, people are inconsiderate with the*



*littering, throwing trash. Trash from encampments – drug paraphernalia, shopping carts, camps. Decriminalizing homelessness brought a big influx. [...] We should be aware of the health and safety issue. (Possible health problems; littering/trash is common)*

*Waste and dog contaminate the water. This is impacting the general health of the public. Lots of trash in the lake comes from the Creeks. (Possible health problems; littering/trash is common)*

*The safety at Lady Bird Lake is a major concern. There are not enough lights at nighttime. Also, the biggest issue is with the health of us who use the lake. People just drop trash all over the trails and sometimes the smell is very bad. (Lack of safety measures, littering/trash is common)*

*Rangers, cops, are understaffed and aren't around to enforce these things. There's not much to be done without funding. Signage can only do so much. (Lack of safety measures)*

*Flotillas are concerning, to have massive groups of people tied up together. [...] It makes it hard to see someone in distress and also makes it hard to find someone who has gone under. (Lack of safety measures)*

*Toxic algae is concerning to me and my students, also a lot to pet owners. It's just disconcerting to many. People aren't allowed to swim and this is also disconcerting. It is not 100% physically safe even if it is beautiful. (Possible health problems)*

**Table 7. Theme- Issues Relating to Health and Safety**

<b>Invariant Constituents</b>	<b>Number of Respondents</b>	<b>Number of References</b>
Possible Health Problems	9	32
Lack of Safety Measures	12	30
Littering/Trash is Common	12	19

## Theme 2: Concerns about Environmental Quality

Three invariant constituents and 94 references supported the theme that there is a concern with environmental quality, particularly water quality at Lady Bird Lake. Subjects typically discussed both concepts. Below are a few of the subject's words:

*The real threat is the deteriorating water quality. The water does not seem safe for human beings. Even though people may not intentionally swim in the water, they still must get wet to into the boat. The water quality needs to be improved. (Poor water quality; declining water quality)*

*If development happens, then set aside some parts as parkland, and make sure environmental and water quality standards are met. We need education for people using the lake to know that it is a fragile ecosystem, and the city needs to improve the water quality to attract younger and more diverse individuals. (Environmental protection)*

*The city needs to help develop an environmental ethos to rally people to help protect water quality – not just at the lake itself but also the whole watershed. We may need this water if we ever get in dire straits. (Declining water quality; environmental protection)*

*I'd like to see work on the invasive species. We need to remove the invasives and plant natives. But there needs to be a comprehensive approach, not piecemealing. (Environmental protection)*

*We need to protect the ecosystem, all species, including humans. People do notice when there are algae blooms and it causes dog issues. But we are going to see more of these blooms with climate change and people need to understand that human and animal waste is not allowed in the water (Declining water quality; environmental protection)*

*I wrote about the water quality. I am not an expert but the water seems very nasty. I remember about 10 years ago, the water looked better, but it seems to be getting worse. I am very concerned about what the lake water will look like in another 10 years. (Declining water quality)*

**Table 8. Theme - Concerns about Water and Environmental Quality**

<b>Invariant Constituents</b>	<b>Number of Participants</b>	<b>Number of References</b>
Poor Water Quality	11	34
Declining Water Quality	8	30
Environmental Protection	16	30

### Theme 3: People Enjoy Nature and Green Spaces

As indicated in Table 3, three invariant constituents and 83 references supported the theme that people enjoy the green spaces at Lady Bird Lake and the experience of being in nature that it provides. Below are some excerpts:

*The trails are a blessing to Lady Bird Lake. Even though they could do with more lighting at nighttime, I thoroughly enjoy walking the trails. I find the natural shade to be perfect, and I wish they could find ways to connect the trails together and even expand upon the existing ones. (Trails are appreciated)*



*The trails are the best part of Lady Bird Lake. People are bringing scooters on the trails, this is dangerous, but I don't see it too often. To protect the beautiful trails, the city should consider having bike lanes which are separate from others who are walking. When it rains, the bikes and other motorized vehicles destroy the trails and make it difficult to walk. (Trails are appreciated)*

*When people think of Austin, it is iconic to Austin, It is pretty, it is nice to have a relatively large natural area be at the geographical center of Austin. Austin takes a lot of pride in it and for good reason. (Very enjoyable scenery, enjoy being in nature)*

*I enjoy the trails at Lady Bird Lake. Sometimes I just go to see the wildlife or stare at the water. When my friends come to visit me from out of town, they always ask to walk the trails. The city of Austin must do everything to protect the trails from trash and other things that could destroy the natural beauty. (Trails are appreciated, enjoy being in nature)*

*It is beautiful and well-maintained and it feels like you are within an awesome area of Austin and it is not stressful. (Very enjoyable scenery)*

*The fact is that you don't get to see the true beauty of Austin unless you are on the water. This is the true part of Austin, the authentic part. When you are surrounded by nature, trees, the herons. The trail is always clean, accessible. You can enjoy it several different ways. It's a way to explore Austin to experience true nature and what Austin is about. The true beauty of Austin. (Trails are appreciated, enjoy being in nature)*

**Table 9. Theme- People Enjoy Nature and Green Spaces**

<b>Invariant Constituents</b>	<b>Number of Participants</b>	<b>Number of References</b>
Trails are Appreciated	<b>13</b>	<b>41</b>
Very Enjoyable Scenery	<b>6</b>	<b>20</b>
Being in Nature	<b>13</b>	<b>22</b>

**Theme 4: Need to Increase Access**

Three invariant constituents and 84 references supported the theme that lake users would like more access points to Lady Bird Lake. Below are some a few of the participant's words:

*There are not enough access points to the lake, which causes people to develop their own access points. The shoreline is nicely vegetated so when people create their own access points, it destroys some of the beauty. Perhaps the city should consider developing more access points and it make illegal to enter the lake at points that are not designated by them. (Too Few Access Points; informal access points)*

*There are not a lot of formal access points. The lack of formal access points is causing degradation. I have lived here in Austin for 47 years and I have seen the improvements of Lady Bird Lake, but I have also seen the degradation caused by lack of access points. I would like to see the lake be around for many more years in its natural beauty. (Informal few access points, access points can be damaging)*

*The lack of access points prohibits people with disabilities from accessing the lake and its trails. It's almost as though the lake is only for those who are 100%, and I don't think that is fair. (Too few access points)*

*Yes, particularly along shore from Congress to I-35. Lots of development was permitted without a lot of access. What happens in terms of access for emergency personnel? This will be even more true if the Statesman site is developed and you bring in thousands of people. (Too few access points)*

**Table 10. Theme- Lack of Access Points**

Invariant Constituents	Number of Participants	Number of References
Too Few Access Points	12	39
Informal Access Points	10	28
Access Points can be Damaging	8	17

**Theme 5: Need to address Diversity**

Three invariant constituents and 57 references supported the theme that lake users would like more access points to Lady Bird Lake. Below are some a few of the participant's words:

*I wish that the users were more diverse. I think it could be more diverse if there were ways logistically and socioculturally to bring people there. More transportation options. Public spaces like Lady Bird Lake in other cities are more diverse. (Current lack of diversity; diversity is needed)*

*There is no diversity. (Current lack of diversity)*

*I would love to have more diversity in the area, whatever gets put out there – diverse businesses will bring more people of color into the space. That seems to be what is lacking. [...] would love spaces that include more cultural events. (Diversity is needed)*

*The diversity in [outdoors organizations] is 100% white. Historically, there have been barriers to access about park information (Current lack of diversity)*

*Certain places are less diverse. Other areas that are more open are more diverse. The historical legacy of the eastern side is being more diverse. They are very different geographically too. People drive to different parts of the lake to get to the amenities*



*they want and the way the lake is managed differently on east and west contributes.*  
(Current lack of diversity)

*I don't think the lake usage represents the demographics of the city. To encourage more minorities to use the lake, we must educate them on safety of the lake and the benefits of using the lake. Also, add signs, art or other things that make them feel welcomed.*  
(Current lack of diversity; diversity is needed)

**Table 11. Theme- Lack of Diversity Among Users**

Invariant Constituents	Number of Participants	Number of References
Current Lack of Diversity	7	26
Diversity is Needed	11	31

### **Water Quality Testing**

The City of Austin Watershed Protection Department (WPD) conducts water quality testing on Lady Bird Lake multiple times a year for routine monitoring and to track specific phenomena, such as the presence of algal toxins. For routine assessment of water quality, samples are collected from three sites six times a year and used to generate a water quality score as part of the Austin Lake Index. These data, available via the City's open data portal, indicate good water chemistry for Lady Bird Lake as a whole. Values for ammonia (as N), nitrate (as N), orthophosphorus (as P), total suspended solids, *E. coli* bacteria, and conductivity are averaged across sites/dates, weighted, and combined to generate a lake score. The lake exhibits less favorable characteristics for chlorophyll-a, indicating the growth of photosynthetic algae. Algal growth indicates the accumulation of organic nitrogen and phosphorus in the lake, which is a particular challenge in Lady Bird Lake due to the large amount of urban runoff that drains into the lake.

Since routine monitoring by WPD focuses on central sites to reflect whole-lake parameters, this analysis focused on the areas that might be more susceptible to human impact due to boat congestion. Samples for analysis were collected upstream and downstream of Lou Neff Point, an area of high boat congestion, before, during, and after a peak use period in August and during a holiday weekend in Sept. This area also will reflect input of urban runoff via Barton Creek. Sample values were compared to a baseline sample collected off Red Bud Isle and to average values from the Red Bud Isle samples collected by WPD.

Nineteen parameters analyzed for the sample sites did not exhibit significant variation from the baseline and/or Austin Lake Index values and reflected fair - good water quality. These parameters include bromide, calcium, chloride, fluoride, magnesium, manganese, sodium, ortho-phosphate (as P), nitrite (as N), sulfate, bicarbonate, hydroxide, silica (as SiO<sub>2</sub>), specific

conductance, total alkalinity, total dissolved solids (TDS), total hardness, and pH (see appendix for detailed results).

**Table 12: Water Quality Parameters That Exhibited Variation from Baseline**

Date	Site	Iron Total (mg/L)	Potassium Total (mg/L)	Nitrate (as N) (mg/L)	Nitrate/Nitrite as N (mg/L)	Pheophytin -A (ug/L)	<i>E. coli</i> (MPN/100mL)	Period
8/18/22	LN US	<0.0500	4.48	0.0208	0.0208	0.876	8.52	Pre-Peak
8/18/22	LN DS	0.0559	<u>5.35</u>	0.0683	0.0683	<b>1.65</b>	1	Pre-Peak
8/20/22	LN US	<0.0500	4.04	0.0981	0.0981	<b>1.5</b>	nd	Peak
8/20/22	LN DS	0.243	4.2	0.11	0.11	<b>4.23</b>	nd	Peak
8/22/22	LN US	<0.0500	4.06	0.112	0.112	<b>4.82</b>	<b>22.8</b>	Post-Peak
8/22/22	LN DS	0.129	3.84	<u>0.254</u>	<u>0.254</u>	<b>2.4</b>	<b>81.3</b>	Post-Peak
9/4/22	LN US	<u>0.386</u>	3.94	0.0424	0.0424	<b>5.23</b>	<b>138</b>	Holiday
9/4/22	LN DS	<u>0.661</u>	3.99	0.0911	0.0911	<b>6.66</b>	<b>222</b>	Holiday
10/1/22	RBI	0.0634	4.2	0.0133	<0.0200	<0.500	3.06	Baseline
2020-21	RB ALI	-	-	-	0.1129	0.649	8.71	Baseline

There were deviations from baseline for a few parameters at one or more of the sample sites. These include iron levels on Sept 4, potassium on Aug 18, and nitrate/nitrite on Aug 22, indicated below with italic underlined values in Table 11. The most notable elevations from baseline occurred for *E. coli* readings, indicated in bold in Table 11. (*E. coli* is an indicator of fecal contamination.) The baseline value was 3.06 MPN/100mL at Red Bud Isle and an average of 8.714 MPN/100mL from the 2020 and 2021 ALI samples collected at Red Bud Isle. *E. coli* readings were elevated in samples collected after peak use on Monday August 22, 38 hours after the peak use period on Saturday, and in the samples collected on September 4, the Sunday of the Labor Day holiday weekend. These elevations are consistent with both increased human activity in the area and the input of storm drainage via Barton Creek. Pheophytin-a, an indicator of phytoplankton presence, was also elevated over baseline for seven samples, also highlighted in bold, raising concern about eutrophication. However, these values are difficult to contextualize with the use of such a limited baseline set of data. A more consistent analysis with more sampling points is needed to ascertain and distinguish the impacts of runoff and human activity on the water quality in the lake.

During this time period, WPD was conducting algal toxin testing on Lady Bird Lake, which yielded positive values for toxins in algae but negative values for toxins in water. A Phoslock treatment had been conducted in July 2022 to curb algal growth.



## Habitat Assessment

Ten sites are assessed annually for habitat quality as part of the Austin Lake Index. The same methodology used for the ALI was applied to assess habitat at 9 informal/nonpublic access points on the south and north shores of Lady Bird Lake to focus on areas most likely to show the effects of human impact via foot traffic. An evaluation of a location with a prominent human structure (a boat dock) was included for comparison. The habitat assessment included evaluation of the shoreline and riparian areas. The shoreline extends one meter away from the water's edge and the riparian area between one and 15 meters from the waters edge. Both zones were evaluated in a 15-meter-wide tract at each site.

The shoreline assessment includes an evaluation of substrate type and abundance, the slope of the bank to the water, and the presence and location of any human-made structures. More favorable substrates (boulder, cobble/gravel, and vegetation) are given a higher rank score, which is multiplied by their abundance. Slope bank angles of less than 30° are most favorable, and vertical bank angles least favorable, with ranks assigned accordingly. Human made structures are most impactful (and thus scored lowest) when they are on the waterline. Each of these scores is converted to a percentage, then averaged for each site. The average shoreline habitat score for the nine informal access points assessed was 76.1 on a scale of 0-100, with a range of 61.2 to 92.2. This score reflects erosion and human traffic in these areas.

**Table 13: Habitat Assessment Scores (Scale 0-100)**

Site	South 1	South 2	South 3	South 4	South 5	North 1	North 2	North 3	North 4	Dock Site
Shoreline Score	79.1	83.5	61.3	71.9	92.2	76.3	76.3	79.4	65.2	19.4
Riparian Score	18.8	25.0	37.5	37.5	37.5	43.8	43.8	41.7	50.0	0.0

The riparian zone was similarly assessed to provide further insight into habitat quality. The components of this assessment include the width of the riparian zone, and evaluation of the abundance of distinct types of vegetation in the categories of canopy, understory, and ground cover. Invasive species and human structures are also tabulated. For this assessment, the vegetation abundance is multiplied by a rank score representing the width of the riparian zone, with the highest score for a zone that extends past 18 meters from the shoreline. Invasives and human structures represent negative rank scores that are similarly multiplied by the abundance factor. The scores are summed, converted to a percentage, and averaged across the sites. The average riparian zone score for the nine informal access points assessed was 37.3 on a scale of 0-100, with a range of 18.6 to 50.0. We did not note invasives at any abundance over 10% at any of the sites. We did note barren ground at many sites at abundance of 10% and up, which reduced this score considerably.

## Environmental Justice Analysis

Environmental justice analysis has relevance to Lady Bird Lake given the history of segregation, redlining, environmental disparities, and other systemic and racial inequities perpetrated in east Austin. As a precious natural resource that physically spans the east-west divide of IH-35, Lady Bird Lake has exciting potential to serve as shared community resource that facilitates connection and mutual learning. Indeed, interview subjects, 40% of whom identify as people of color, expressed considerable pride in Lady Bird Lake even as they noted shortfalls in inclusion for people of color, individuals with disabilities, and lower income individuals. Thus, it is important to understand the demographics of the people who live nearest to the lake and are by virtue of proximity among those poised to benefit the most from additional amenities, programming, vendor capacity, and other shifts.

EJ screen data reflect demographic differences between the population residing near Lady Bird Lake west of I-35 and those residing near the lake east of I-35. The population considered “near the lake” was determined by delineating the 0.25-, 0.5-, and one-mile zones extending from the shoreline of the lake in any direction, and by combining the census block groups whose perimeters fell within 0.25 miles of the shoreline. 22 census block groups were included for the “West of I-35” group and 12 for the “East of I-35 group. Under any of these conceptions of proximity, there are notable differences between east of I-35 and west of I-35 with respect to percent people of color (20-29 percentage points difference, or 1.8-2 times higher in east Austin), percent low income (10-24 percentage points difference, or 1.6-2.7 times higher in east Austin), limited English speaking (3-7 percentage points difference, or 2.5-3.3 times higher in east Austin), and percent with less than a high school education (5-9 percentage points difference, or 2.46-4 times higher in east Austin).

**Table 14: Demographic characteristics of the population residing near Lady Bird Lake**

	0.25 mile radius		.5 mile		1 mile		Census Block	
	East of I-35	West of I-35	East of I-35	West of I-35	East of I-35	West of I-35	East of I-35	West of I-35
<b>Population</b>	5709	14070	18094	24299	41698	56158	12391	25407
<b>Area (sq. miles)</b>	1.360	2.950	2.770	5.810	6.730	12.670	2.03	7
<b>People of Color</b>	50%	29%	57%	28%	55%	30%	45%	25%
<b>Low Income</b>	31%	16%	38%	14%	38%	18%	25%	15%
<b>Unemployment Rate</b>	2%	2%	3%	2%	2%	3%	5%	2%
<b>Limited English Speaking</b>	5%	2%	6%	2%	7%	2%	10%	3%
<b>&lt; High School Education</b>	8%	3%	11%	3%	12%	5%	12%	3%
<b>Under Age 5</b>	1%	3%	3%	3%	4%	4%	4%	3%
<b>Over Age 64</b>	5%	11%	7%	12%	7%	11%	11%	11%
<b>Demographic Index</b>	41%	22%	47%	21%	46%	24%	41%	20%

The unemployment rate and the percentage of the population who are children under age 5 in east and west sectors was comparable, except for when proximity was delineated by the census



block group method. The percentage of the population over the age of 64 was higher in the west (1-6 percentage points difference, or 1.3-2.2 times higher), except for when proximity was delineated by the census block group method.

Comparison of environmental exposures across 12 environmental parameters were comparable between east and west sectors of the lake with some exceptions. Exposure was similar for particulate matter 2.5, diesel particulate matter, ozone, the air toxic cancer risk index, the air toxics respiratory hazard index, and Superfund proximity. Traffic proximity was 1.5-2.5 times higher for the population living in the west sector, due to the combined exposures of I-35 and Mopac (the index is based on highway traffic). Proximity to regulated management plan sites was also higher in the west sectors under most definitions. Proximity to hazardous waste, underground storage tanks, and lead paint hazard (represented by the percentage of homes constructed before 1960) was higher in east sectors

**Table 15. EJ Screen pollution sources**

	0.25 mile radius		.5 mile		1 mile		Census Block	
	East of I-35	West of I-35	East of I-35	West of I-35	East of I-35	West of I-35	East of I-35	West of I-35
<b>Population</b>	5709	14070	18094	24299	41698	56158	12391	25407
<b>Area (sq. miles)</b>	1.360	2.950	2.770	5.810	6.730	12.670	2.03	7
<b>PM 2.5 (<math>\mu\text{g}/\text{m}^3</math>)</b>	9.88	9.89	9.88	9.89	9.88	9.89	9.89	9.88
<b>Ozone (ppb)</b>	38.30	38.60	38.30	38.60	38.40	38.60	38.37	38.69
<b>Diesel PM (<math>\mu\text{g}/\text{m}^3</math>)</b>	0.288	0.286	0.279	0.283	0.280	0.276	0.299	0.277
<b>Air Toxics Cancer Risk</b>	30	30	30	30	30	30	30	30
<b>Air Toxics Respiratory HI</b>	0.34	0.33	0.36	0.33	0.35	0.33	0.36	0.32
<b>Traffic Proximity</b>	1600	3500	1200	3000	1500	2200	1707	2539
<b>Lead Paint</b>	0.13	0.05	0.17	0.14	0.15	0.21	0.34	0.17
<b>Superfund Proximity</b>	0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014
<b>RMP Facility Proximity</b>	1.50	2.20	1.50	1.80	1.40	1.40	1.33	1.62
<b>Hazardous Waste Proximity</b>	1.60	1.00	1.60	0.99	1.60	1.00	1.53	0.90
<b>Underground Storage Tanks</b>	6.00	3.30	5.00	3.70	5.80	4.00	7.58	3.13
<b>Wastewater Discharge</b>	5.00E-05	9.20E-05	3.80E-05	6.50E-05	4.20E-05	3.90E-05	3.91E-05	5.52E-05

Units: Air Toxics Cancer Risk (lifetime risk per million); Air Toxics Respiratory Hazard Index (ratio of exposure concentration to health-based reference concentration, Traffic Proximity (daily traffic count/distance to road), Lead Paint (% Pre-1960 Housing), Superfund Proximity (site count/km distance), Regulated Management Plan Facility Proximity (facility count/km distance), Hazardous Waste Proximity (facility count/km distance), Underground Storage Tanks (count/km<sup>2</sup>), Wastewater Discharge

## Unlicensed Vendors

Unlicensed vendors represent a pressure on lake capacity whose impact is not well quantified. It is impossible to easily distinguish by visual inspection which boats on the water belong to licensed vendors, which are brought in by unlicensed vendors, and which belong to private citizens. Analysis of 311 data did not offer much insight, with only three items logged in 2022 as “PARD - Commercial Use of Parkland.” PARD staff note specific 311 items being reported in 2021, which suggests that the calls may have been flagged differently prior to 2022, making

tracking difficult. PARD staff compiled information on at least nine unlicensed vendors utilizing parkland for lake access in 2021 and 2022. Five of these vendors were also noted in social media advertisements compiled by the research team. Two additional reported instances involved vendors who could not be identified by name, so it is unclear if these are distinct vendors or redundant with the identified nine. One of the vendors was associated with the aggregated “brotilla” that assembles at the mouth of Barton Creek on Saturdays. This aggregate represents about 40% of the previously noted concentration of boats in the Mopac to Lamar segment of the lake on Saturdays, contributing significantly to the lake exceeding carrying capacity on these days. Another vendor deploys craft that use battery-powered motors to reach speeds of up to 25 mph. Regulations limit the capacity of motorized craft on Lady Bird Lake to 5 horsepower. A 5 hp engine on a boat typically achieves 4-10 mph depending on lake conditions, thus this vendor is in violation not only of license requirements but also of the restriction on motorized vessels. Yet another unlicensed vendor runs night cruises, another situation that represents potential additional hazard. Enhanced enforcement will be needed to mitigate the safety and environmental issues caused by these unpermitted activities.

## **Conclusions and Recommendations**

In this report, carrying capacity was approached through four frames: recreational, ecological, spatial/facility-based, and experiential. Boat census results indicate that the recreational carrying capacity of Lady Bird Lake is exceeded during peak periods (weekends). On those days, the average whole lake boat density as determined by aerial census is 0.5 acres/boat. The published target density for canoes and kayaks is 1-1.3 acres/boat, so overall the lake is about twice as congested as is desirable. In the most used segments of the lake on peak days, the boat density is 0.075 acres/boat or 13X more congested than the target density. The whole lake boat density on non-peak days (weekdays) is well within the carrying capacity at 2.34 acres/boat. However, even during non-peak days, the Mopac-Lamar segment of the lake exceeds carrying capacity, with density measurements of 0.78 acres/boat.

More data are needed to fully address the ecological carrying capacity of the lake, though the results of water quality testing and user feedback indicate reasons for concern. *E. coli* bacterial counts were elevated around the area of highest lake congestion both during and after peak use periods. An algal growth indicator was also elevated in this area during and after peak use. In addition, habitat assessments indicated concern is more trafficked areas. However, given the combination of factors that influence lake water chemistry, including recent rainfall and urban runoff, a more comprehensive assessment, both geographically and in terms of metrics, is needed to fully understand the impact of human activity on the lake and elucidate trends vs background fluctuations. The flow-through nature of the reservoir introduces both resilience



and complexity in interpreting environmental impacts and accumulations. Additional considerations for monitoring are recommended below.

Mixed results were obtained relevant to spatial or facility-based carrying capacity. Parking census data for selected lots indicated good parking availability. However, concerns about inadequate parking and, more broadly, concerns about crowding and access were frequently referenced in interviews and evident from survey results. Just under half (49.1%) of survey respondents considered inadequate parking a significant or critical concern, 58.5% expressed strong or moderate concern with lake crowding, and 57.2% with trail crowding. Finally, feedback from users suggests that the experiential/social carrying capacity of the lake is being exceeded by current use patterns for many respondents, with 61.4% experiencing a loss of enjoyment due to lake crowding at least some of the time. Interview subjects also commonly expressed concern about the effects of crowding on congestion on the lake. Both interview subject and respondents to open-ended survey questions identified population growth as a concern, and approached crowding as an inevitability.

It is important to contextualize these results in the face of anticipated challenges to the resilience of the lake, including population growth, climate change, and increased watershed pressures. While carrying capacity is not being exceeded every day by every definition, the results in this report highlight the need for proactive intervention, both to address current patterns of crowding and mitigate the impact of increased human pressure on the lake. These interventions can also help to address the other lake-related concerns raised by stakeholders in the interviews and surveys. Some recommendations for action (not in priority order):

### **1. Reduce Congestion**

- a. The concentration of watercraft in the segment of the lake between Mopac and First Street, particularly at the mouth of Barton Creek, is a major contributor to unfavorable boat density. Introducing amenities and formal access points east/south of Congress and west/north of Mopac may help to alleviate this congestion, which is likely to intensify with the development of the former Austin American Statesman site.
- b. Adding more formal access points will help to protect the shoreline from erosion due to informal access points. Adding more formal access points and amenities east of Congress may also help diversify lake users.
- c. Amenities to consider include those that may welcome different users to the park, especially outside of the most congested areas. Suggestions from our respondents include food/coffee vendors, minority-owned businesses, picnic areas, art areas, and a fishing pier.

- d. Introducing a boat labeling/badge system for watercraft of licensed vendors can help PARD and others to monitor and control the contribution of watercraft from unpermitted vendors to congestion. This would require more resources for enforcement. However, we do not recommend badging, fees, or any similar measures for personal watercraft, as this would significantly interfere with access and the availability of Lady Bird Lake as a free resource to the public. The desirability of maintaining unrestricted public access was a key point in interview feedback.

## **2. Increase Connectivity**

- a. Increasing the connectivity of the Butler Trail system to other trails and parks would help to alleviate congestion, relieving traffic and increasing facility and amenity availability. This could also help to distribute users who currently concentrate in one area if paired with amenities and programming offered in the connected parks. Interview subjects frequently referenced the appeal of Lady Bird Lake as centering around natural beauty and the ability to experience green spaces in an urban environment. Efforts to offer this level of experience at connected parks may help to alleviate Lady Bird Lake congestion.
- b. Increases to connectivity, if conducted strategically and with community involvement, may enhance the issue of low user diversity and increase access for groups who typically do not utilize Lady Bird Lake. Trail connectivity may also be linked to public transit connectivity to alleviate parking pressure around the lake.

## **3. Enhance/Expand Programming**

- a. In tandem with amenities and access points, offering programs outside of the highest congested area (Mopac to First Street) may help to relieve crowding and mitigate its consequences. These programs can also extend to connected parks to enhance trail connectivity efforts and may include expansion of PARD's current programming as well as programs developed with partnering organizations. However, these efforts should be balanced to ensure that Lady Bird Lake also remains a resource for those who do not live in the immediate vicinity, with continued efforts to introduce Lady Bird Lake to segments of the population who may not have previously made use of the lake.
- b. Culturally relevant programming can enhance efforts to diversify lake users and bring more people into the networked trail/park system. Specific examples from surveys and interviews include movie nights, sports competitions linked to community organizations, food events, and family events that include educational components for K-12.



- c. Educational programming can enhance safety and support environmental protection efforts. (See more below.) Educational programs also present opportunities to increase diversity and recruit new park ambassadors.

#### **4. Enhance/Expand Public Education**

- a. Enhancing water safety and boating etiquette education efforts will help to mitigate the dangers introduced by boat congestion. This can be coordinated in partnership with vendors and outdoors organizations. Consider more visible signage to enhance water safety, particularly in areas of high boat density. Floating aggregates of boats introduce increased drowning risk due to decreased visibility, making safety education more urgent. The consumption of alcohol is likely higher in these aggregates compared to a mobile kayaker or paddler, further increasing risk.
- b. Education about the impact of trash in the lake, particularly for users who float in large aggregates, may help to reduce the pollution introduced by this practice. Providing watercraft vendors and members of the public with reusable string bags to use in place of plastic bags can be linked to an educational campaign about lake impacts. Trash reduction efforts conducted in San Marcos were highlighted in a recent Watershed Protection report on trash in the watershed; this report detailed several user-level interventions.
- c. Watershed protection education, not just for lake users, but for all Austinites is also recommended to help reduce the pollution entering the lake (and all our bodies of water) via our urban watersheds.
- d. There is a disconnect between the actual water quality of Lady Bird Lake (good with some critical concerns such as algae) and the perception of many members of the public, who may interpret the appearance of aquatic vegetation and/or the swim ban as indicating dangerous water chemistry. This is an area for continued education/awareness.
- e. Diversity efforts should be enhanced through education, both through PARD and in partnership with other organizations and businesses. (See more below.)

#### **5. Increase Diversity**

- a. The issue of diversity in the outdoors is complex. Use patterns for underrepresented groups in outdoors activities and/or locations reflect a combination of factors, including socioeconomics, preference, level of outdoors access/awareness/exposure, relationship with government entities, discrimination, and a long history of systemic racism. Thus, current use patterns should not be interpreted as inevitable or as an accurate reflection of capacities and interests. A resource toolkit is recommended to help address this gap in understanding.

- b. Cultural relevance is critical in programming, both to broaden participation and create a sense of welcome. Education efforts also represent a channel for increasing diversity by simplifying the learning curve for new users of all ages.
- c. Organizations or businesses led by people of color, and/or volunteers who represent diverse demographics are potential lake ambassadors who can increase diversity of lake users and support the environmental protection and safety education efforts discussed above.
- d. Even advocates of outdoors diversity can benefit from training on understanding systemic racism, dissecting stereotypes, and learning how to be inclusive and engage new users. This type of training, and better yet, ongoing departmental assessment, will yield stronger community awareness of and action on behalf of the parks.

## **6. Leverage Interns and Volunteers**

- a. Our respondents, via survey and interview, expressed a high level of appreciation for Lady Bird Lake as a treasured Austin resource. This good will can be channeled into existing or new volunteer efforts that support the protection of the lake's environmental quality.
- b. Several current Lady Bird Lake volunteer activities focus on trash clean up and trail maintenance. These efforts are important. However, volunteers may also be able to assist with invasive species tagging, public education campaigns, and/or helping to manage periods of congestion (e.g., lake ambassadors)
- c. Interns may be able to provide another level of support with public education (social media campaigns, campus and school programs) and citizen science approaches.
- d. Corporate volunteer programs sometimes provide funds to support these efforts along with a volunteer pool.

## **7. Increase Environmental Monitoring**

- a. The flow-through nature of Lady Bird Lake allows certain pollutants to move downstream and ultimately pass into the Colorado River while others accumulate in sediment. To better assess human impacts and lake health, these pollutants, such as microplastics, should be monitored on a regular basis. It may also be useful to analyze sediment in a larger number of locations in the lake.
- b. Water quality measurements taken at key central sites provide insight into large scale trends over time, but are not suited to profiling and understanding the specific impacts of events such as storms and large amount of human presence. Monitoring the most vulnerable lake and shore areas may provide an early warning system for environmental quality challenges.



- c. One way to assess the resilience of the lake is to monitor how quickly it returns to baseline after a perturbation. This requires frequent sampling or continuous monitoring. It may be valuable to explore continuous monitoring solutions, such as those employed in Lake Tahoe (nearshore sensor system) or Lake Kentucky (buoy-based system) to understand these dynamic perturbations.
- d. Monitoring of species biodiversity is currently based on benthic macroinvertebrate assays carried out once per year. Sampling more frequently and from a greater number of sites will provide more comprehensive information, and help to understand variations and trends. DNA-based methods for invertebrate identification may be used to facilitate a more cost-effective and rapid analysis.
- e. Many student and citizen science groups engage in water quality testing, but varying methodologies may prevent this data from being actionable. Training for more citizen scientists, and/or coordination through an existing platform, such as TurbAqua, or organization may help to standardize and quality test these approaches for implementation and provide more data for assessing
- f. Strategic planning that considers the complexity and intensity of the combined pressures of urban growth and climate change on Lady Bird Lake over the next decades should be heavily informed by the expertise in Austin's Watershed Department in addition to PARD and other state and regional entities.

#### **8. Address Administration and Enforcement**

- a. Implementing all the above will require either new funding or a reallocation of funding. PARD may consider exploring the vendor fee models implemented in other cities and the extent to which new or existing partnerships may support these efforts.
- b. Public safety was a significant concern to survey and interview subjects, with many respondents expressing a need for more patrols. While this does not address capacity directly, public safety pressures will increase with increased growth. Particular concerns discussed involved personal safety, vehicle security, and the presence of encampments in the park.
- c. A more robust system for identifying unlicensed vendors and enforcing penalties is needed to support current regulations. These vendors represent a gap not just in addressing lake capacity, but in also managing and coordinating safety and environmental protection.

## **Acknowledgements**

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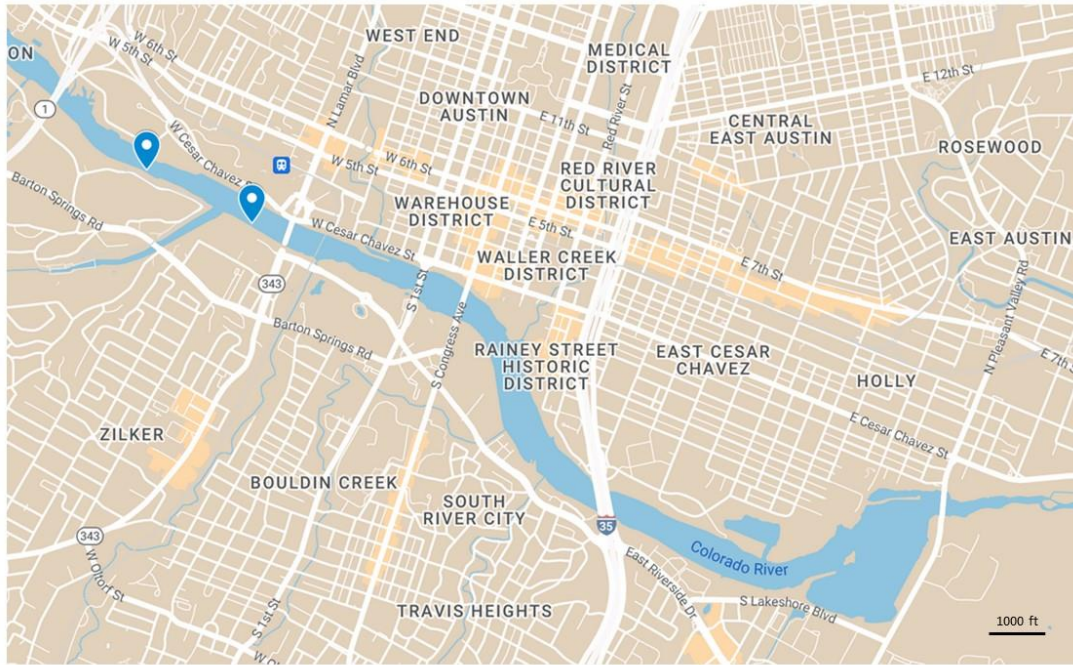


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## Appendices

### Appendix 1: Water Sampling Sites

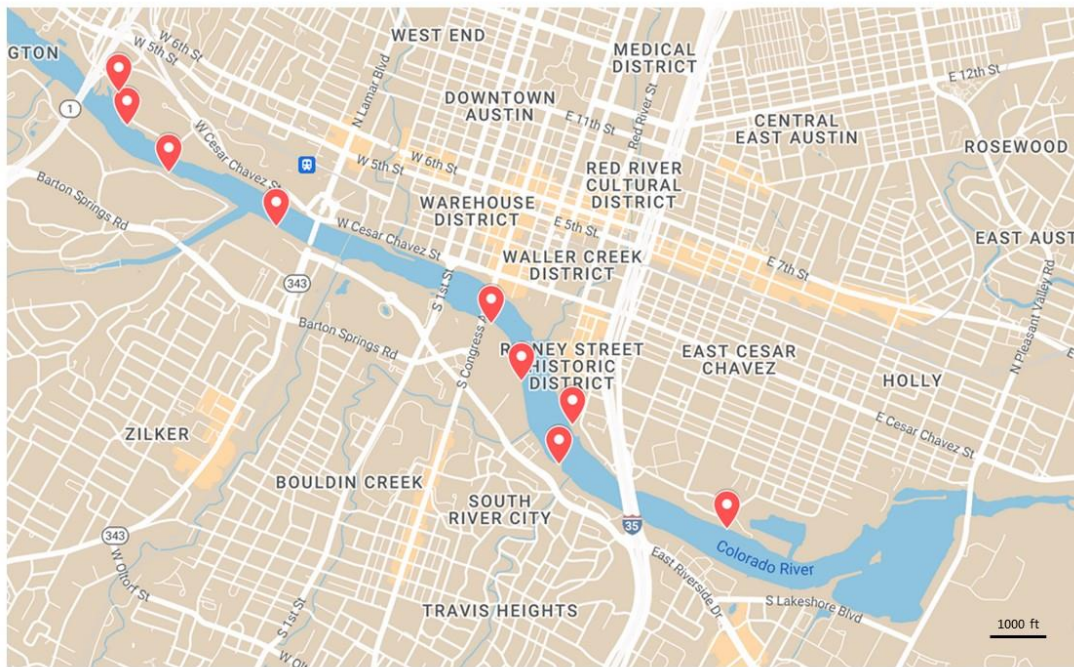


Site	Coordinates
Lou Neff Downstream	30.2872687, -97.7860304
Lou Neff Upstream	30.2663190, -97.7591190
Red Bud Isle*	30.2693612, -97.7660811

\*not depicted on map



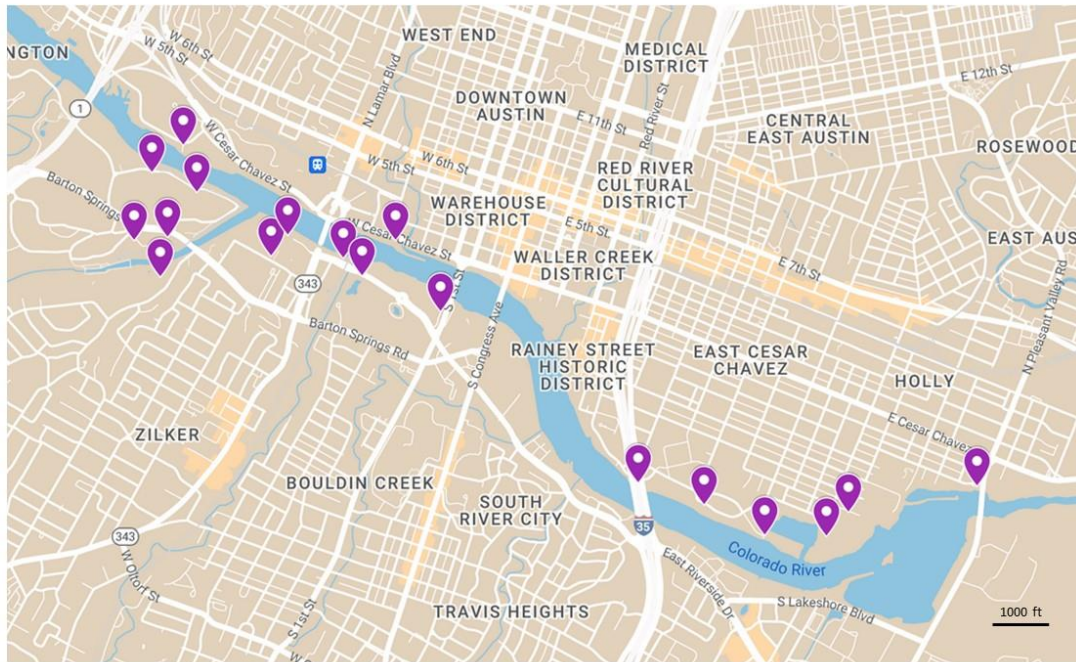
## Appendix 2: Habitat Assessment Sites



Site	Coordinates
Lou Neff Water Site 1 (South 2)	30.2663190, -97.7591190
Lou Neff Water Site 2 (South 3)	30.2693612, -97.7660811
SoCo Apartments (South 1)	30.2572873, -97.7430017
Congress Bridge (South 4)	30.2605540, -97.7449898
Cidercade (South 5)	30.2525076, -97.7405888
Texas Rowing Club (Dock for Comparison)	30.2718240, -97.7689440
Marsh 1 (North 1)	30.2737799, -97.7695616
Marsh 2 (North2)	30.2737799, -97.7695616
Red Bud Isle* (North 3)	30.2878173, -97.7860079
Festival Beach (North 4)	30.2489282, -97.7294686

\*not depicted on map

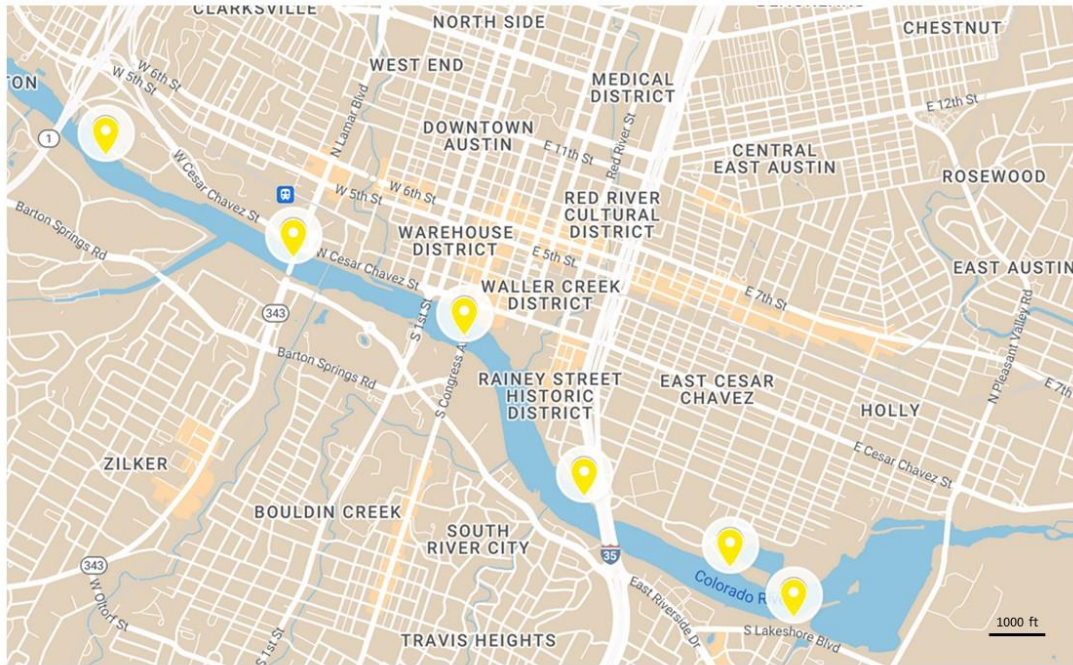
### Appendix 3: Parking Lot Count Sites



Site	Coordinates
Holly Shores	30.251355, -97.713895
Central Austin Youth League	30.249843, -97.722300
Calisthenics Gym	30.248550, -97.723744
Expedition School	30.248648, -97.727765
Edward Rendon Park	30.250320, -97.731758
Under IH-35	30.251571, -97.736063
Shoal Beach	30.265319, -97.752030
Austin High Boat Launch	30.270691, -97.765930
Zilker Volleyball Courts	30.269158, -97.768030
Parking Lot near Austin Scoop	30.268071, -97.765091
Barton Creek Pay Parking	30.265280, -97.769251
Andrew Zilker	30.265487, -97.766999
Azie Morton Rd	30.263196, -97.767523
Butler Shores Pay Parking	30.264409, -97.760249
Lamar Parking	30.265579, -97.759072
Between the Bridges	30.264296, -97.755524
First Street	30.263315, -97.754237
Riverside PayParking	30.261321, -97.749022



Appendix 4: Ground Count Sites



Site	Coordinates
Epic SUP	30.245715, -97.723683
Festival Beach	30.249974, -97.732096
Holiday Inn Boat Ramp	30.252547, -97.737526
Congress Bridge	30.261481, -97.745292
Lamar Bridge	30.266364, -97.756393
Texas Rowing Center	30.271916, -97.768914

Appendix 5: Water Sampling Results

Date	Site	Calcium Total mg/L	Iron Total mg/L	Magnesium Total mg/L	Potassium Total mg/L	Sodium Total mg/L	Manganese Total mg/L	Bromide mg/L	Chloride mg/L	Fluoride mg/L
8/18/2022	LN US	42.9	<0.0500	21.4	4.48	22.7	0.0161	0.172	38	0.214
8/18/2022	LN DS	46.9	0.0559	22.5	5.35	24.1	0.0131	0.182	38.8	0.23
8/20/2022	LN US	43.2	<0.0500	20.8	4.04	23.3	0.0219	0.162	35.7	0.21
8/20/2022	LN DS	45.9	0.243	21.4	4.2	24.3	0.0356	0.161	35.7	0.177
8/22/2022	LN US	46.6	<0.0500	21.8	4.06	24.5	0.0288	0.168	36.7	0.21
8/22/2022	LN DS	54.2	0.129	22.6	3.84	25.2	0.0206	0.183	36.9	0.225
9/4/2022	LN US	52.8	0.386	21.8	3.94	23.7	0.0462	0.172	39.3	0.228
9/4/2022	LN DS	59.2	0.661	22.8	3.99	24	0.0338	0.177	38.9	0.227
10/1/2022	RBI	46.9	0.0634	22.5	4.2	24.6	0.0561	0.169	39.5	0.23

Date	Site	Nitrate (as N) mg/L	Nitrate/N nitrite as N mg/L	Nitrite (as N) mg/L	ortho- Phosphate (as P) mg/L	Sulfate mg/L	Chlorophyll- a ug/L	Pheophyti n-A ug/L	pH	Temp C	Ecoli MPN/ 100mL
8/18/2022	LN US	0.0208	0.0208	<0.0100	<0.0100	24	1.75	0.876	8.3	32	8.52
8/18/2022	LN DS	0.0683	0.0683	<0.0100	<0.0100	25.5	2.85	1.65	8.3	32	1
8/20/2022	LN US	0.0981	0.0981	<0.0100	<0.0100	24.2	2.98	1.5	8	31	nd
8/20/2022	LN DS	0.11	0.11	<0.0100	<0.0100	24.5	8.33	4.23	8.2	30	nd
8/22/2022	LN US	0.112	0.112	<0.0100	<0.0100	24.8	5.89	4.82	8	29	22.8
8/22/2022	LN DS	0.254	0.254	<0.0100	<0.0100	27.2	3.27	2.4	8	29	81.3
9/4/2022	LN US	0.0424	0.0424	<0.0100	<0.0100	28.1	11.1	5.23	8.2	28	138
9/4/2022	LN DS	0.0911	0.0911	<0.0100	<0.0100	28.8	14.5	6.66	8.2	26.5	222
10/1/2022	RBI	0.0133	<0.0200	<0.0100	<0.0100	23.4	10.4	<0.500	8.3	26.4	3.06

Date	Site	Bicarb. Alkalinity mg/L	Carb. Alkalinity mg/L	Hydroxide Alkalinity mg/L	Phenol phthalein Alkalinity mg/L	Total Alkalinity (CaCO3) mg/L	Total Hardness (as CaCO3) mg/L	Specific Conductance umho/cm	Total Dissolved Solids mg/L	Silica as SiO2, Dissolved mg/L
8/18/2022	LN US	164	5.92	0	2.96	170	195	491	263	10.6
8/18/2022	LN DS	166	8.88	0	4.44	175	210	508	291	10.8
8/20/2022	LN US	169	5.92	0	2.96	175	193	483	242	11.1
8/20/2022	LN DS	165	7.44	0	3.72	172	203	480	249	10.9
8/22/2022	LN US	177	0	0	0	177	206	500	264	11.5
8/22/2022	LN DS	191	0	0	0	191	229	528	290	11.6
9/4/2022	LN US	182	0	0	0	182	222	505	283	10.5
9/4/2022	LN DS	186	0	0	0	186	242	513	314	10.2
10/1/2022	RBI	167	0	0	0	167	210	487	273	11.5



## *Appendix 6: Interview questions*

### All interview subjects:

1. Please describe how you use the lake, trails, and park.
2. What are some of the positive attributes of Lady Bird Lake?
3. What are some of the negative attributes of Lady Bird Lake?
4. You wrote specifically about X. Would you like to say more about that now?
5. Do you believe there is a safety issue at Lady Bird Lake? If yes, why. If not, why not
  - a. If yes, what can PARD do to improve the safety of Lady Bird Lake?
6. Do you believe there is a capacity issue at Lady Bird Lake? If yes, why. If not, why not.
7. Do you believe there is an access point issue at Lady Bird Lake?
  - a. If yes, what can be done to address this?
8. What are the top environmental concerns you have, if any, about the Lake?
9. What are the top economic/development concerns you have, if any, about the Lake?
10. What do you think about the diversity of users of the Lake?
  - a. If lack of diversity is a problem, what is contributing and what can be done?
11. Who benefits most from the Lake? Who benefits least?
12. Do you have concerns about any kind of Lady Bird Lake use?
13. Do you believe PARD is maximizing the potential of the lake? What other activities would you like in and around the lake?

### Vendor questions:

14. What are your thoughts on the regulatory mechanisms in place to balance the lake's physical limitations and the lake users' demand?
15. As a proprietor of the lake, what are your concerns regarding the growth of your business?

# COMMUNITY SURVEY: LADY BIRD LAKE

**Do you walk, run, bike, hike, paddle, kayak, fish,  
float, play, picnic, or relax at Lady Bird Lake?**

***THEN WE WANT TO HEAR FROM YOU!***

Huston-Tillotson University is helping the Austin Parks and Recreation Department understand what Austinites think about lake issues such as growth, safety, and environmental quality. Your input will help PARD with their next steps for the lake.

GO TO [TINYURL.COM/HTLAKE](https://tinyurl.com/HTLAKE) TO REPLY  
AND ENTER TO WIN \$100

