

Florida Portable Toilets Boater's Disposal Preferences Report 2026



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Introduction

The 2024 Florida Clean Vessel Act (CVA) Resource and Needs Assessment (RNA) helped determine where in the state additional sewage pumpout stations are most needed¹. It assessed the boating community's knowledge of boat sewage laws, attitudes regarding environmental issues as they relate to water quality impacts from sewage, and behavior as it relates to sewage disposal practices. Additionally, the RNA collected Florida boat demographic data. Although the RNA did show a desire among the boating community for the installation of dump stations, it was recommended that additional research be conducted regarding the disposal of portable toilet waste.

The habits, preferences, and statistics of portable toilet users on boats are vastly unknown. Anecdotal information is heard and passed around among recreational boating waste management professionals. However, no studies or surveys have been conducted to collect and analyze data.

The primary goal of this project is to determine if marine dump stations are a desirable tool for boaters with portable toilets or buckets and if their installation should be encouraged through CVA projects. Additionally, this study aims to collect data on boaters with portable toilets or buckets to better understand this community's waste management practices and statistics.

Marine dump stations are specifically designed for boater's portable toilet waste which is typically poured out of the waste tank for disposal. Marine dump stations have a wide funnel-shaped opening and may have a freshwater hose for rinsing the portable toilet holding tank. Marine dump stations are an 'open' system and differ from Recreational Vehicle (RV) dump stations which are a closed system.

In Florida, there are only seven publicly available marine dump stations listed in the Pumpout Nav app. Dump stations, especially those with a water source, have shown, in other states, to be a convenient and effective way for boaters to properly dispose of sewage waste, if they do not have an installed toilet. However, unlike boaters with installed toilets, that must have a pumpout to dispose of waste, otherwise discharge it overboard, boaters with portable toilets or buckets have a variety of other options. Other common options include, bringing the waste to a landside toilet for proper disposal or using a plastic liner in a bucket to contain the waste then dispose of it in a trash can. Although not as common, boaters with portable toilets or buckets can also use a suction wand at a pumpout station.

¹ Gambale, V. (2024) Florida Clean Vessel Act Resource and Needs Assessment. Report. Florida Sea Grant College Program TP-500.

Methods

Interviews were conducted with a convenience sample at boat shows with boaters who own portable toilets or have a dedicated bucket for sewage. The interview survey was determined to be exempt by the University of Florida's Institutional Review Board. The interviewer asked people at random if they own a boat. If they did, the interviewer asked if they had a toilet onboard and what type. If the boater had a portable toilet or bucket for waste, they were asked to participate in the interview survey. The interviewer would then ask each question in the survey and record the boater's response.

After the fifth question, the interviewer paused and shared with the boater information about dump stations and suction wands. The interviewer used a trifold brochure to show photos of these options, as well as a sample suction wand. The interviewer then continued asking the boater questions. The interviewer did not force responses to questions from participants. Participants were free to skip or not answer questions. After the questions were completed, the interviewer explained why this research is being conducted, and took additional notes based on any discussion or comments from the boaters.

Results

A total of 68 interviews were conducted. Based on interview results, most boaters (51%) with portable toilets and buckets for sewage waste have never used it. Comments indicated they have the toilet for emergency situations. One boater noted he only uses it approximately one fifth of the time he goes boating (boats 30 times per year) and uses it just for bowel movements (BM) and not urine. Many boaters noted that they urinate over the side of the boat. Another boater noted they will go home if they need to have a BM. Several boaters noted that they just use their boat for short local trips and will wait until they get to a public restroom (restaurant, fuel dock, etc.) or return home.

Most boaters were not familiar with dump stations. When they learned more about them some boaters enthusiastically expressed that dump stations should be installed. One boater noted they keep their boat at home behind their condo and live on the eighth floor and would like conveniently located dump stations, so they don't have to bring a waste tank up to their condo for proper disposal. Another boater noted that they would use the dump station if it was strategically located at launch ramps, so it didn't hold up the flow of traffic. Besides answering the interview questions five boaters made additional comments in favor of installing dump stations, while two made additional comments not in favor of installing dump stations.

Based on participant responses, the most preferred sewage disposal methods are their home toilet (55%) and dump stations (30%). One boater suggested floating restrooms which are a CVA eligible project, commonly deployed on inland lakes.

When comparing how boaters currently dispose of waste with how they would dispose of waste if all options were free and convenient there is an increase in dump stations from zero to 19 (out of 63 participants). Since dump stations are so rare in Florida, it's not surprising no one currently uses them, as they are not available in the areas participants boat. Seven of the boaters who prefer dump stations currently do not use their portable toilet, five dispose of waste at their home toilet, four discharge overboard, and three use a public or marina toilet. Most boaters who discharge overboard (five) say they would use their home toilet, one boater stated he didn't know it was illegal and would now use his home toilet.

Table 1. Comparison of respondents' current and preferred sewage disposal methods.

Current Sewage Disposal Method	Preferred Sewage Disposal Method	Count
N/A	Port-a-potty dump station	7
Home toilet	Port-a-potty dump station	5
Overboard	Port-a-potty dump station	4
Public or marina toilet	Port-a-potty dump station	3
Overboard	Home toilet	5
Overboard	Overboard	3
Home toilet	Home toilet	15
Home toilet	Pumpout Suction Wand	1
Other	Home toilet	1
Other	Other	1
N/A	Home toilet	14
N/A	Public or marina toilet	2
N/A	Pumpout Suction Wand	2

N/A (not applicable) indicates the boater doesn't currently use their portable toilet and therefore doesn't need to dispose of waste.

Discussion

When considering whether we should promote the installation of dump stations, we need to determine if there are sufficient need and interest. There are approximately 1,171,000 registered vessels in Florida, 95% of which are less than 26 feet (NMMA)². Based on the Florida Clean Vessel Act Resource and Needs Assessment, approximately 46% of vessels less than 26 feet have a portable toilet or bucket for sewage waste. Given these numbers,

² National Marine Manufacturers Association. 2024. Recreational Boating Statistical Abstract.

approximately half a million vessels may need a dump station. When we look at interview results that show 49% of boaters use their portable toilet or bucket that number drops to about 250,000. Finally, when asked what their preferred sewage disposal method is, 30% of respondents indicated they would use a dump station. Based on this extrapolation, we can expect at least 75,000 boaters to use dump stations. Additionally, if installed, promoted, and in convenient locations, additional boaters may choose to use dump stations. Additional boaters may be those who reported a different preferred disposal method, or boaters that do not register their vessel with Florida Highway Safety and Motor Vehicle (FLHSMV), such as visitors.

When compared, the expected number of boaters who may need a dump station is higher than the number of boaters who may need a pumpout. Using the same data extrapolation method, we can estimate 5% of registered vessels, approximately 58,000 may need pumpouts. In Florida, there are over 250 public pumpouts listed in the Pumpout Nav app. Based on this comparison alone, it seems that installing dump stations should be prioritized. However, pumpouts can be considered a more critical sewage pollution prevention device for boaters, since boats with installed toilets have no other option than pumpout or discharge overboard. Boaters with installed toilets may also use their boat toilet more often than those with portable toilets. Additionally, boats with installed toilets have much larger holding tanks so the effect of overboard discharge may be more detrimental to water quality. Finally, based on research conducted for the RNA the number of vessel accommodations greater than or equal to 26' is approximately 3 times the simple registration calculation indicates, at approximately 175,000. This may be due to a couple factors; although the accommodation (slip, berth, mooring, etc.) can fit a vessel over 26' it may be used by a vessel less than 26' or vessels may not be registered with FLHSMV such as federally documented vessels, foreign documented vessels, and visiting boaters.

Of the boaters who report that they currently discharge sewage overboard, five out of twelve (42%) prefer to use a dump station. The number of boaters that self-report discharging sewage overboard is likely an underestimation. When considering the benefits of installing a dump station to prevent overboard discharges, it's also prudent to take into consideration how concentrated boat sewage is. When compared to municipal sewage, boat sewage has 43 times the total nitrogen, 20 times the total phosphorus, 24 times the chemical oxygen demand, and 13 times the biological oxygen demand³.

The goal of the CVA program is to provide adequate recreational boater waste disposal facilities that prevent disposal in public waterways. Given the results of these interviews, it

³ KCI Lewis White & Associates (2008) *Lynnhaven River Boat Wastewater Sampling Program report*. Prepared for the City of Virginia Beach.

is suggested that dump stations be installed with extensive promotion, education, and awareness efforts to inform the boating public. Any dump station installed should include an hour counter or other metric to determine use. Additionally, installation location should be carefully considered. The installation of dump stations should be prioritized in counties with a high concentration of vessels 26 feet or less to maximize equipment utilization. Additionally, results show launch ramps, marinas, and fuel docks are possible good locations for dump stations. However, the exact site within a launch ramp, marina or fuel dock must be carefully considered to ensure optimal use without interfering with the ramp traffic, regular marina activities, or fuel dock operations.

Dump stations, if not properly monitored, can be misused for trash, or vandalized. It's important to select a location that will deter these abuses. Additionally, locking the dump station in the closed position during non-business hours is a recommended practice to prevent abuse but potential for abuse and accessibility should be weighed for each site to determine the best management practice.

After each installation the dump station should be evaluated over time to determine its usage and the need for additional promotion. Evaluations of installed dump stations can also guide future promotion of dump station installations.

The use of home toilets for waste disposal should continue to be included in education efforts. Home toilets are the most preferred sewage disposal option. This should be discussed further with boaters that implement this practice. Any lessons learned or helpful suggestions should be included in educational materials.

Appendix 1. Boater Interview Questions and Data

Question: Do you have a portable toilet or bucket for waste onboard?

(68 responses)

Table 2. Respondent's boat toilet type.

Response	Count	Percentage
Yes, portable toilet	49	72%
Yes, bucket	18	27%
Composting Toilet	1	1%

Question: In the past year, how often has it (the toilet) been used?

(66 responses)

Table 3. How often respondents use their marine toilet.

Response	Count	Percentage
Every time I go boating	7	11%
Half the time I go boating	5	7%
Never since I got it	34	51%
Once or twice since I got it	7	11%
Once or twice a year	13	20%

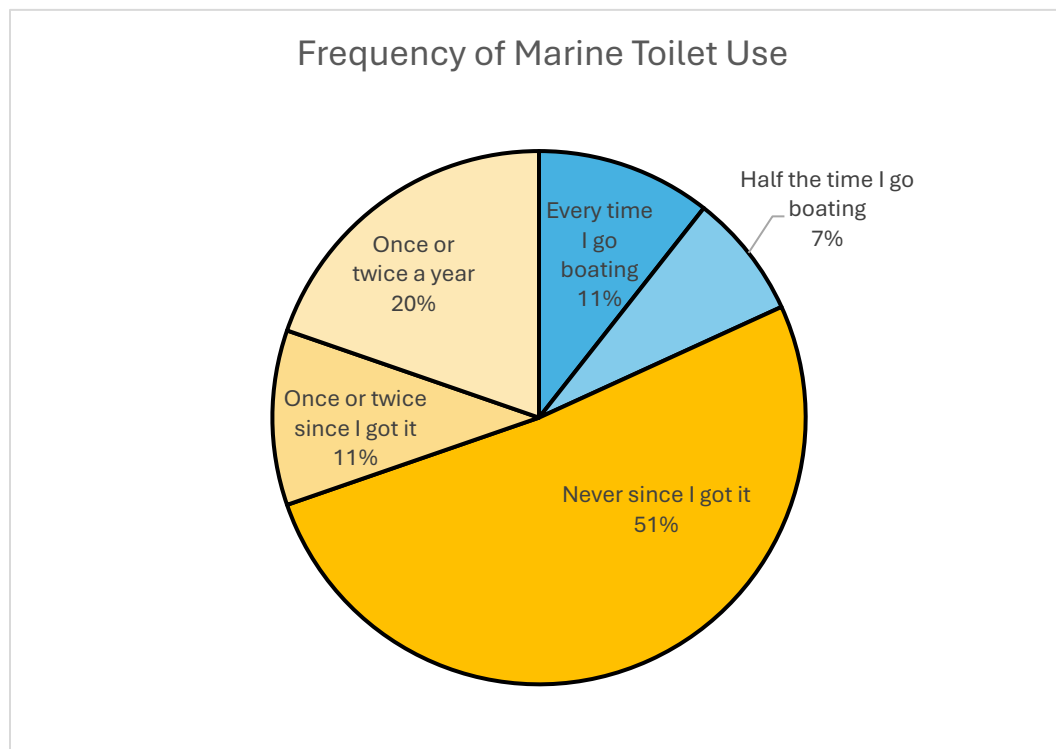


Figure 1. Frequency of marine toilet use.

Question: How long have you had the marine toilet?

This question was only asked to respondents who indicated they have never used their marine toilet or have only used it once or twice since they got it. (38 responses)

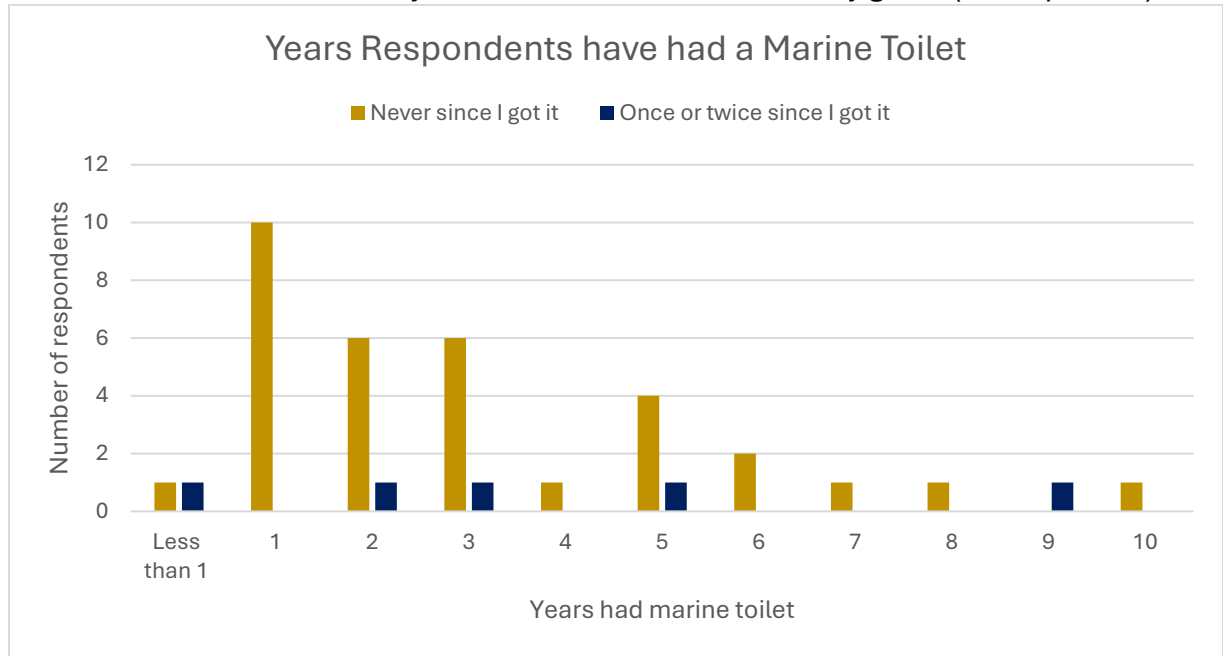


Figure 2. Number of years respondents have had their marine toilet, separated by frequency of use.

Question: How often do you go boating?

(66 responses)

Table 4. Respondent's frequency of boating.

Response	Count	Percentage
3 or more times/week, year round	3	5%
3 or more times/week, seasonally	1	2%
1-3 times/week, year round	22	33%
1-3 times/week, seasonally	4	6%
1-3 times/ month, year round	26	39%
1-3 times/ month, seasonally	1	2%
less than 12 times/ year	6	9%
other:	3	5%

Question: Where do you usually dispose of sewage waste?

This question was only asked to boaters that indicated they have used their marine toilet, with a few exceptions. (40 responses)

Table 5. Respondent's current sewage disposal method.

Response	Count	Percentage
Home toilet	21	52%
Other	3	8%
Overboard	12	30%
Public or marina toilet	4	10%

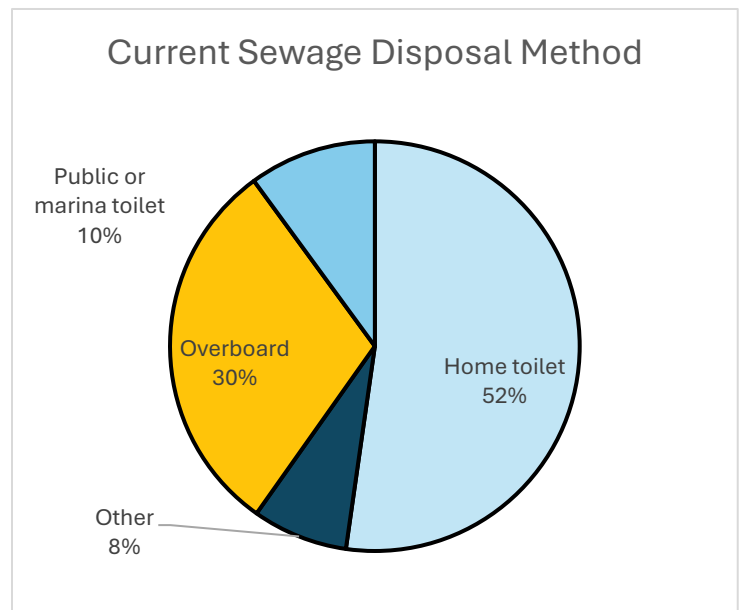


Figure 3. Respondent's current sewage disposal method.

Pause: At this point the interviewer explained the different disposal options available.

Question: In a perfect world, if all ways to dispose of boat sewage were free and convenient, what would you choose?

(63 responses)

Table 6. Respondent's preferred sewage disposal method.

Response	Count	Percentage
Home toilet	35	55%
Other	1	2%
Overboard	3	5%
Port-a-potty dump station	19	30%
Public or marina toilet	2	3%
Pumpout w/ suction wand	3	5%

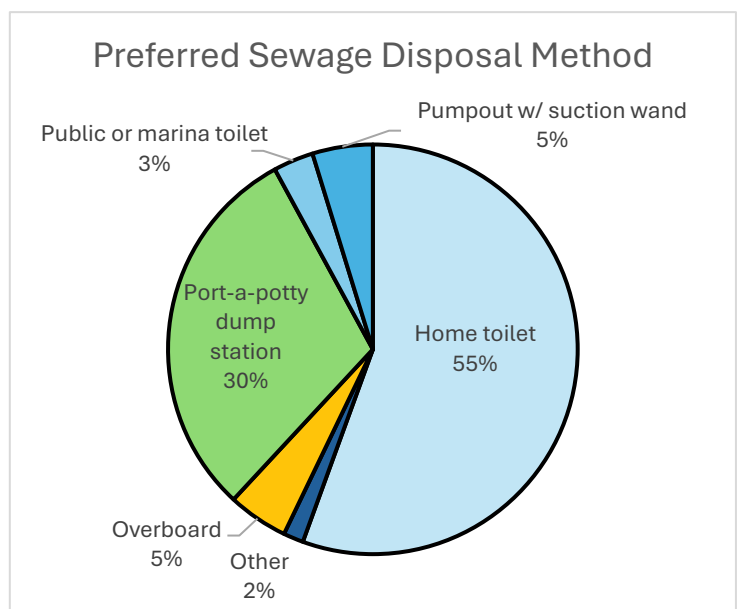


Figure 4. Respondent's preferred sewage disposal method.

Question: Rank the most convenient locations for dump stations.
(22 responses)

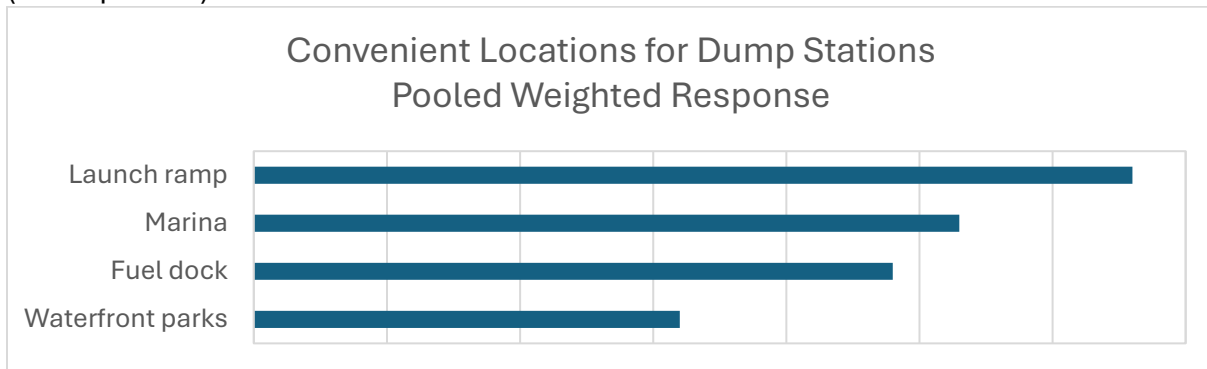


Figure 5. Respondent's preferred location for sewage dump stations.

Question: How large is your boat? (length in feet)
(66 responses)

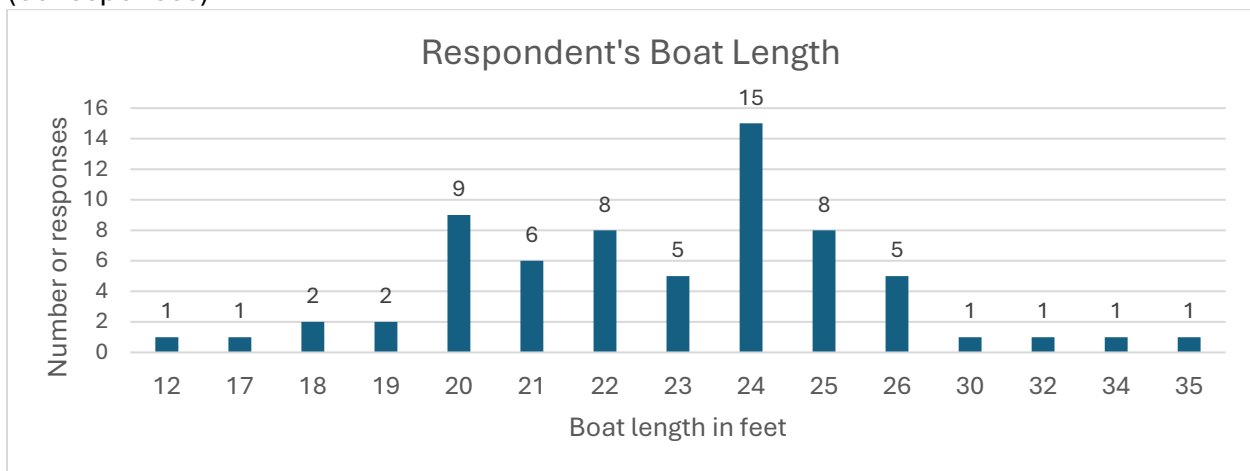


Figure 6. Respondent's boat length.

Question: What is your home zip code?
(68 responses)

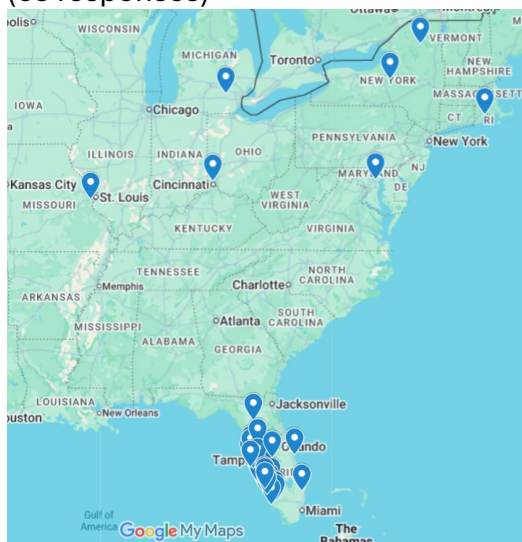


Figure 7. Map of respondents' home zip codes.