# A Guidebook for Marina Owners and Operators for the Installation and Operation of Sewage Pumpout Stations

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# INTRODUCTION

The Pennsylvania Fish and Boat Commission (PFBC) has developed this Guidebook to assist marina owners and operators with the installation and operation of marine sewage pumpout stations. It addresses key topics such as:

- The importance of providing a pumpout station at a marina, from both an ecological and economic standpoint.

- How to select, permit, install, and operate a pumpout station to meet the needs of marina operators and boaters.

- How to obtain financial assistance to cover part of the cost for installing, operating, and maintaining a marine pumpout station. The PFBC can help obtain reimbursement for up to 75% of the costs associated with a marine sewage pumpout station.

This Guidebook provides general information on the design, construction, operation, and maintenance of marine sewage pumpout facilities. It is not a design manual or a substitute for the preparation of a design for a specific facility. It is intended to provide project ideas and assist with the completion of an application for financial assistance.

Any questions concerning the information contained in this Guidebook or about the Clean Vessel Act Program should be directed to:

Pennsylvania Fish and Boat Commission
Clean Vessel Act Program - Bureau of Boating
P.O. Box 67000
Harrisburg, PA 17106-7000
Telephone: 717-705-7816
E-Mail: RA-BoatGrants@pa.gov
Website: fishandboat.com

# Chapter One
# Protecting Aquatic Resources

Pennsylvania's water resources support a wide variety of recreational and commercial activities. These aquatic resources are a valuable asset to marina operators and boaters. Improper sewage disposal could be a threat to continued use and enjoyment of those resources.

Human sewage is a repulsive visual pollutant that can significantly contribute to the loss of dissolved oxygen in water which is essential to aquatic organisms. Sewage can carry dangerous pathogens and is a significant contributor to fecal coliform bacteria contamination that can result in severe intestinal diseases if ingested.

Federal and state regulations requiring the use of marine sanitation devices (MSDs) on boats have helped to reduce the impact of human waste on aquatic resources. Some boaters use flow-through MSDs or dispose of raw untreated sewage directly overboard rather than using holding tanks, due to the lack of convenient disposal facilities. This is not surprising, as boaters often spend an entire day on their boats. It is important for boaters to understand the federal and state regulations, the impacts of their disposal decisions, and to be aware of convenient pumpout facilities on the waters on which they boat.

Providing a pumpout facility at your marina is a practical solution that makes sense:

- It may attract additional users to transient facilities.
- It will discourage boaters from illegally discharging untreated sewage.
- It helps to demonstrate that boaters are concerned about the environment and our shared water resources.
- It is a cost-effective solution since up to 75% of the installation costs are reimbursable through grants.

The safe and sanitary disposal of vessel sewage waste must be provided for when constructing and operating pumpout stations and waste reception facilities. Meeting legal disposal requirements assure boaters their efforts will improve water quality.

## Vessel Sewage Characteristics

Vessel sewage is more concentrated than domestic sewage for almost all of the standard parameters used to measure the quality of wastewater. It also frequently contains chemical additives used to disinfect and deodorize the waste. Ideally, the odor controlling chemicals should be biodegradable when diluted. These chemical additives commonly contain an active disinfectant along with dyes and perfumes. Some of the more common disinfectants include formaldehyde, paraformaldehyde, quaternary ammonium chloride, and zinc sulfate. There are

concerns from operators of small municipal sewage treatment plants and some marina operators with septic systems, that vessel sewage holding tank waste may adversely affect performance of their sewage treatment systems by destroying the bacterial population, thereby reducing system efficiency. A second concern, particularly of operators of municipal treatment plants operating at or near capacity, is that the additional volume of waste will cause the plant to exceed its capacity to treat wastewater effectively.

Research on the effects of chemical additives on sewage treatment processes indicates that these problems have been greatly overstated, and that in general, most municipal sewage treatment plants can handle holding tank waste without difficulty. In addition to relatively low volumes generated by sewage pumpout stations, the weekly and seasonal usage of marina facilities protects treatment systems from failing or exceeding capacity. In Pennsylvania, marinas typically receive their largest pumpout volumes on weekends and only during the summer season. Therefore, treatment plants generally can assimilate such intermittent waste loading with no serious operational problems.

# Chapter Two
# Choosing Appropriate Technology

There are many choices to consider in selecting an appropriate pumpout station. Marina operators must understand the alternatives to make an informed decision. This Guidebook provides options and basic information upon which to make an informed choice.

The first step in the selection process is to clearly define the needs of the boaters and marina. Keep in mind that the basic requirements of any pumpout facility are to provide an efficient means of: 1) removing raw or treated sewage from boats; and 2) disposing of that sewage in a sanitary method.

## Types of Marine Boat Sewage Pumpout Stations and Waste Reception Facilities

There are four basic types of pumpout stations on the market. Each one has its advantages and disadvantages. Since every marina is unique, there is no one solution that will work in all cases. Therefore, each case should be examined individually, and the pumpout that will work best in the situation should be selected. Costs for equipment and installation can vary greatly, depending on the need for sewage lift stations to accommodate fluctuating water levels, the need for special onshore holding tanks for concentrated waste, the cost of connection to a sewer system, and other factors. Stationary or portable dockside pumps range in price from $5,000 to $25,000 and complete installations may exceed $50,000. The following is a list of pumpout station types and advantages and disadvantages:

**Portable Pumpout Units.** These may be wheeled devices, consisting of a holding tank, hose, and mechanical or hand pump, pushed along a dock to the vessel's location to pump out vessel sewage. The primary advantage of this type of system is mobility. The pumpout unit is brought to the boat, rather than the boat to the station. When full of sewage, however, they can be very heavy and cumbersome. The total time required for a pumpout is somewhat greater than that of fixed units since the unit must be brought to the boat, used, and then returned to its storage, cleaned, and put away. Operating costs are, therefore, somewhat higher. In the case of a yacht club where members provide their own servicing, this may be less of a factor, and a portable unit may be the most cost-effective solution.

**Stationary Pumpout Units.** Stationary units include a connector hose and pump connected directly to a local or municipal sewage treatment facility or holding tank. The unit is usually located at the end of a pier or floating dock, often near the fueling facilities. Vessels access the pumpout station by approaching and securing to the dock or pier. The advantages are convenience and efficiency. The costs of the units themselves are comparable to portable units, but costs for installation of piping will increase the overall cost considerably depending on the distance to the nearest municipal sewer tap. The principal disadvantage of fixed units is that they restrict service to a single area in the marina, which may cause congestion.

**Remote Operated Multi-Station Systems.** This system has a pump that transports wastes via a main sewer line to central collection and treatment. It can provide pumpout capabilities at multiple locations throughout the marina. Multi-station systems, which provide wastewater collection at any time, combine the convenience and efficiency of fixed units with the versatility offered by portable units. These systems are expensive, but their operating costs can be low. They have an extended service life, however, and this may justify the added expense in certain circumstances. This type of system may be especially attractive for a full-service commercial marina with many live-aboard boats. The freezing climate of Pennsylvania can be a problem for this type of system, and the marina operator must make special considerations.

**Portable Pumpout on a Vessel.** This unit is a boat with a pumpout station on board and consists of a pumpout holding tank that may be radio dispatched or operated on a fixed schedule of marina visits to pump holding tanks. The advantage is that the pumpout comes to the boat. The disadvantage is that the pumpout is not always available when needed.

## Collection and Disposal Methods

An important factor in selecting the most appropriate sewage removal method is how the collected waste will be disposed. Disposal methods will vary depending upon a number of factors, including:

- state and local sanitation codes;
- the number of vessels and where the vessels are concentrated;

- the availability and proximity of existing treatment facilities to boating centers; and
- hydro-geologic characteristics, including soil types and groundwater flows.

Depending on these factors, marinas may consider the following methods:

1. Off-site treatment, discharging to:
   a. Public wastewater collection system and treatment facility.
   b. Holding tank with removal and transport by a licensed septic hauler to a municipal septic receiving/treatment facility.

2. On-site treatment, discharging to:
   a. Sewage treatment plant with subsequent discharge back into coastal waters (National Pollutant Discharge Elimination System (NPDES) permit would be required).
   b. Septic system, when no other alternative is available.

# Chapter Three
# General Design Criteria

## Pumping Equipment

There are three basic types of pumps used in pumpout systems. While the basic principle behind any pump is to create a change in pressure between the inlet and outlet, each type of pump does it in a different manner. The different types are as follows:

**Diaphragm Pumps.** Diaphragm pumps create suction by mechanically lifting a diaphragm up and pushing it down in a pump body. The diaphragm works in conjunction with two check valves. As the diaphragm lifts, the low-pressure area under it causes sewage to be sucked into the body through the inlet check valve. When it is pushed down, the pressure caused under the diaphragm closes the check inlet valve and forces sewage out the outlet check valve. This pump is self-priming. A diaphragm pump works well with low heads under twenty feet.

**Vacuum Pumps.** Vacuum pumps do not directly handle sewage. The vacuum pump draws air out of an accumulator tank; this creates the necessary low pressure or vacuum to cause sewage to flow in. When the accumulator tank is full, pressurized air is directed into the accumulator tank and the pressure pushes the sewage out to a sewer or holding tank. This pump allows pumping over longer distances. Vacuum pumps work well for heads just under fifty feet.

**Peristaltic Pumps.** Peristaltic pumps, also called hose pumps, give continuous suction by squeezing a three-inch internal diameter flexible tube between twin rollers. No moving parts

come in contact with the effluent, only the tube itself does. Peristaltic pumps offer the highest output pressure, which sends effluent farther and higher than other pumps. Peristaltic pumps are probably the best for heads up to and slightly over sixty-five feet.

## Site Selection

Convenient location enhances use. Stationary pumping equipment should generally be located as close to the boat off-loading point as possible and where boats need to maneuver the least. Many facilities are located at the fuel dock so boaters only have to go to one location for both of these activities. If located near the fuel dock, the pumping unit will have to be explosion-proof (this is a good idea anywhere since the operator never knows what might be in the holding tank).

## Pipes, Fittings and Hoses

Discharge piping should be rigid or non-collapsing flexible, with locking inter-connectors. Corrugated or ribbed hoses are not recommended. The lines should be watertight and appropriately fastened or secured to the dock or pier. Consult local building codes for specific piping requirements. Forced main systems may require "thrust" blocks and other security fastenings.

- *Deck fitting* – A flanged fitting permanently mounted on the vessel and connecting to the onboard holding tank.
- *Connector* – A nozzle or coupling permanently attached to the suction hose of a pumpout station.
- *Adaptor* – A fitting designed to facilitate adapting a pumpout connector to a vessel deck fitting.

When the requirements went into effect for vessels with an installed toilet to have a certified MSD, there was a requirement for sewage removal fittings, or adapters, to be 1 ½ inches for boats less than 65 feet in length. Changes to the regulations, however, resulted in a variety of fittings and couplings being installed on boats. Thus, the use of adapters is required to ensure a tight fit for many boats' holding tanks.

A valve should be provided on the pump end of the suction line if the line is to be installed in such a manner that sewage would discharge from the line when the pump is removed from service. Positive locking connections on the end of the discharge line should be provided to prevent it from coming loose during discharge. The discharge line should be protected from freezing and prevented from leaking into the water. Suction hoses should be equipped with clear tubing or a sight glass on the suction end of the hose to allow the attendant to determine when pumping is complete.

## Sewage Dump Station

In addition to pumpout stations, facilities exist to receive sewage wastes from portable toilets. A waste reception facility consists of a receiving receptacle for sewage from portable toilets and includes associated equipment, storage tanks or sewer line connections. This facility is not a land-based or floating restroom but can be made a part of such. The sewage dump station receiving unit should be a minimum of 12 inches in diameter and equipped with a cover that completely covers the receiving unit (to control odors and insect access). Provisions for rinsing portable toilets after emptying the contents should be made. If the unit is designed to drain, the drain should be a minimum of three inches in diameter and equipped with an insect-tight cover.

## Fresh Water Rinse

Waste reception facilities should be equipped with a wash-down system to allow cleaning of the portable toilet. The wash-down system should be clearly marked as unfit for drinking water. Wand attachments may be connected to a pumpout station to empty portable toilets, rather than building a separate facility.

## Holding Tanks

Sewage holding tanks should be sized appropriately for the volume of sewage generated and the frequency of removal of material from the holding tank. In terms of the number of boats serviced with a normal removal schedule, the following minimum sizes are suggested:

| Total Number of Boats Serviced with Holding Tanks | Recommended On-shore Holding Tank Volume (in gallons) |
|---|---|
| 1-20 | 300 |
| 21-40 | 600 |
| 41-60 | 900 |
| 61-80 | 1,200 |
| 81-100 | 1,500 |
| 100+ | 2,000 |

This chart provides a good starting point for determining the appropriate size of the holding tank; however, in many areas, septic tank cleaners may charge for a full truckload even if the holding tank is half the size of the truck. Consult with local septic tank pumpers to determine the fee structure prior to purchasing a holding tank. If charges are for a full truckload, consider buying a tank with a capacity slightly larger than that of the septic collection truck used to haul away the effluent. This will help to ensure a full load when the tank is pumped.

The holding tank should be designed so that it is watertight and not subject to any infiltration or leakage. When constructed of material other than concrete, the internal surface of the holding tank should be protected from corrosion. Materials used in the manufacture and installation of holding tanks should be resistant to deterioration by prolonged or frequent contact with deodorizing chemicals, sewage decomposing materials, sewage, and fresh or saltwater. The outside of the tank should also be protected from corrosion. Provisions should be made to ensure that the tank can be completely emptied. The tank should be adequately vented. Screened, elbowed down vents installed at the top of the tank will serve this requirement. Vents should be high enough to prevent water from entering the tank during anticipated flood events.

## Operation and Maintenance

Proper operation and maintenance of pumpout stations and waste reception facilities is critical to provide adequate and reasonable service. An individual should be assigned responsibility for operation and maintenance of pumpout and waste reception facilities. Consider appropriate protective clothing for the operator such as gloves, apron, and eye protection. Hand-washing facilities should be readily available. The following minimum maintenance is suggested to maintain sanitary conditions: flush hoses; pump clean water through the system and empty into disposal area (never onto the ground or into the water); and disinfect the suction connections.

An event or hour meter should be installed on the pump to monitor its use. Such monitoring should be an integral part of a marina management program to ensure that the facilities are operating effectively. The following practices have been found to be effective in assuring that facilities are in working order:

- Arrange a maintenance contract with contractors competent in the repair and servicing of pumpout facilities;
- Develop regular inspection and preventative maintenance schedules; and
- Maintain a dedicated fund for the repair and maintenance of the facilities.

Convenience for boaters and operators is a major factor. Hours of operation for pumpout stations should be keyed to general operating hours for vessels in the area.

## Compliance with the Build America, Buy America Act for Federally Funded Projects

On November 15, 2021, the Federal Infrastructure Investment and Jobs Act (IIJA), commonly referred to as the Bipartisan Infrastructure Law (BIL), was signed into law. The Build America, Buy America Act (BABA) within the BIL requires that “each Federal agency shall ensure that none of the funds made available for a Federal financial assistance program for infrastructure … may be obligated for a project unless all of the iron, steel, manufactured products, and construction materials used in the project are produced in the United States.” This policy applies to all new Federal financial assistance awards made on or after May 14, 2022, and new funding obligations to existing awards or through renewal awards where the new funding is obligated on or after May 14, 2022, regardless of whether or not the award is funded through the BIL. The domestic content procurement preference (domestic preference) requires:

1. *All iron and steel used in the project are produced in the United States.* This means all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

2. *All manufactured products used in the project are produced in the United States.* This means the manufactured product was manufactured in the United States, and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55% of the total cost of all components of the manufactured product, unless another standard for determining the minimum amount of domestic content of the manufactured product has been established under applicable law or regulation.

3. *All construction materials are manufactured in the United States.* This means that all manufacturing processes for the construction material occurred in the United States.

# Chapter Four
# The Permitting Process

## Federal and State Permits

Federal and state permits required for the installation of pumpout stations depend entirely on the scope of the work involved. If the project is simple and installed on an existing pier or wharf, minimal or no federal or state agency permits may be required. If the project involves any regulated activities, a multitude of state and federal agencies must be included in the permit and review process:

**Regulated Activities Requiring Federal and State Permits**

Dredging and filling
Pier extensions
New pier construction
Building on tidal wetlands
Building on non-tidal wetlands

**Federal Agency Review**

U.S. Army Corps of Engineers
U.S. Fish and Wildlife Service
National Marine Fisheries Service
Environmental Protection Agency

**State Agency Review**

Pennsylvania Department of Environmental Protection
Pennsylvania Fish and Boat Commission

Fortunately, installing most pumpout stations will not involve regulated activities. Except for those instances in which the pumpout station is included as part of a marina expansion or new development, or where a holding tank must be located within a critical buffer area, federal and state permits will not normally be required.

The Commonwealth of Pennsylvania and the U.S. Army Corps of Engineers have developed a "joint permit" application to simplify the application process for projects that involve regulated activities. Upon completing the joint application, it is submitted to the Pennsylvania Department of Environmental Protection and to the U.S. Army Corps of Engineers.

The majority of DEP permits are issued through the six regional Department offices. Any operations that could affect the environment or public health in any way require contact with the appropriate DEP Region Office. These offices will assist with identifying required permits and coordinating permitting and licensing procedures. The contact information for each regional office can be found at www.dep.pa.gov.

- Southwest Regional Office: 412-442-4000
- Northwest Regional Office: 814-332-6945
- North-central Regional Office: 570-327-3636
- South-central Regional Office: 717-705-4700
- Southeast Regional Office: 484-250-5900
- Northeast Regional Office: 570-826-2511
- Regional Permit Coordination Office: 717-772-5987

### Local Permits

Local permits that may be required include:

Building Permit or Zoning Certificate
Sanitary Construction Permit
Grading Permit or Erosion and Sediment Control Plan
Plumbing or Connection Permit
Pre-treatment Permit

Factors that determine permitting requirements include local, county, and municipal codes, and the way in which the boat sewage will be disposed. Local permit requirements and the specific local agencies that issue those permits vary from county to county. Exact permit requirements must be determined by the local agencies that have authority to review applications and issue permits.

# Chapter Five
# The Clean Vessel Act Program

### General

Congress passed the Clean Vessel Act of 1992 in recognition of a need to improve the quality of the nation's boating waters. While the amount of waste contributed by boats is small in comparison to the many major discharges in the United States, the amount is still significant.

When disposed in backwaters and areas of concentrated boat operation without adequate circulation of waters, the impact of boat sewage becomes amplified. The purpose of the Clean Vessel Act is to provide funds to the states for the construction, renovation, operation, and maintenance of pumpout stations and waste reception facilities to encourage boaters' use. In Pennsylvania, the PFBC oversees and administers the Clean Vessel Act grant program to public and private marinas.

This Chapter provides guidance for the preparation of project applications for the construction, improvement, operation or maintenance of sewage pumpout facilities to meet eligible federal aid purposes. Facilities developed with federal funds must be maintained to ensure they continue to serve their intended purpose throughout their useful life. For the purpose of this Chapter, facilities include buildings, structures, equipment, and infrastructure needed to adequately provide for the pumpout of boat sewage.

## Eligible Purposes

Clean Vessel Act grant funds are available to both the public and private sector. This includes all local governmental entities and private businesses that own and operate boating facilities. To participate in this program, the pumpout stations must be open to the general boating public.

Once approved, the grant will reimburse recipients for up to 75% of the installation cost of pumpout and dump stations. This includes the cost of new equipment, or the renovation or upgrading of existing equipment, as well as necessary pumps, piping, fitting, lift stations, on-site holding tanks, pier or dock modifications, signs, permits, and other miscellaneous equipment needed for a complete and efficient station.

The grant will not pay for the construction or renovation of onshore restroom facilities, sewage treatment plants, septic tanks, drain fields, or other special treatment devices.

Projects for facility development must have objectives related to one or more of the following purposes:

- Provide public access to boat sewage pumpout.
- Enhance public use of boat sewage pumpout facilities.
- Operation activities that will ensure that affordable, clean, and convenient pumpout facilities are available and functioning. This includes costs for operating the equipment, labor, and disposal costs.
- Upkeep activities necessary to allow the facility to function, and include routine recurring custodial maintenance and minor repairs, as well as the supplies, materials, and tools necessary to carry out the work. Also included is non-routine cyclical maintenance to keep facilities fully functional. Cyclical maintenance is major maintenance or renovation activities conducted at intervals normally greater than one year.

- Any activity necessary to hold and transport sewage-to-sewage treatment plants, such as holding tanks, piping, haulage costs; and any activity necessary to facilitate sewage treatment plants accepting sewage, such as installing bleed-in facilities.

## Funding and Matching Requirements

Grant recipients are responsible for at least 25% of the installed costs of the pumpout and dump station facilities provided under the grant program. This 25% match can be cash, the fair market value of any labor or materials provided, or a combination thereof.

## Performance Reports

Within 60 days after the end of the grant agreement period, the grant recipient must submit a performance report on the project, including the following information:

- A description of the progress made through the end of the grant agreement period toward accomplishment of the stated objective(s) for the project. Explain any deviations that may influence accomplishment of the stated objective(s).
- A summary of the work completed during the grant period relating to the work identified in the project statement of the grant agreement.
- Costs incurred during the grant agreement period.

## Public Access to Facilities and Maintenance

All recreational vessels must have access to pumpout and dump stations funded under this grant program. Facilities shall be operated, maintained, and continue to be reasonably accessible to all recreational vessels for the period of their useful life.

## Program Crediting

Signs shall be placed on site to acknowledge the facility was constructed or improved with funds from the Clean Vessel Act Program through the PFBC. The following is suggested language: "This facility was built (or improved) using Sport Fish Restoration Program funds authorized by the Clean Vessel Act through the Pennsylvania Fish and Boat Commission." Signs containing the universal sign for pumpouts must also be posted. In addition, signs indicating the hours of operation, fees (if any), operating instructions, and a contact point to report problems must be posted. Signs are an eligible expense under the Clean Vessel Act program.

# Chapter Six
# Grant Application Procedures

## Submission of Applications

All applications for financial assistance to develop, maintain or operate marine sanitation pumpout facilities and dump stations must be submitted through the PFBC. The deadline for proposals will be posted on fishandboat.com.

**Applicants are required to submit their application and attachments on a flash drive or by email no later than the established deadline.**

## HOW TO APPLY – APPLICATION REQUIREMENTS

***Application Materials.*** *For all projects, the applicant must submit all required application forms and attachments. The application and more information can be found at* Pumpout Grant Program (fishandboat.com). *Applicants may attach additional pages as needed but are encouraged to be brief and to the point.*

A. All grant applications must be submitted on or before the established deadline using the application form provided. The PFBC will not consider late applications.

B. Staff will contact applicants who submit incomplete applications. If the application can be completed in a reasonable amount of time and before funding recommendations are made, the applicant will be given an opportunity to resubmit.

C. In addition to the completed application, the applicant must demonstrate the following:

1. Authorization to submit a grant application.
2. A willingness to enter into a Cooperative Agreement with the PFBC for Clean Vessel Act projects.
3. Ability to provide resources to operate and maintain the facility for the period of the agreement.
4. Capability of completing this project within the two-year contract period or other stipulated completion period.
5. The ability to secure all necessary permits and approvals necessary for the construction and operation of the proposed facility.

D. Requests for application forms, guidance, and assistance should be directed to:

Clean Vessel Act Program
Pennsylvania Fish and Boat Commission - Bureau of Boating
P.O. Box 67000
Harrisburg, PA 17106-7000
Telephone: 717-705-7816
E-Mail: RA-BoatGrants@pa.gov
Website: fishandboat.com

### *Application Preparation - General*

A. Application must be submitted on the provided form.

B. Completed applications must include a cover letter addressed to the PFBC requesting consideration of the project and any other pertinent information. (See below.)

C. The applicant must submit all required attachments with the initial grant application.

E. An individual authorized by the project sponsor to act on its behalf is required to sign the application.

### *Application Preparation - Detail*

A. Cover Letter. The applicant must submit a cover letter to the PFBC requesting consideration of the project and indicating that they have the capability of completing the project. The applicant must have the resources to operate and maintain the pumpout facility for a period of 7 years.

B. Photos. Include a minimum of two digital photos that show where the pumpout unit will be located.

C. Cost Estimates. Supplier or contractor estimates must show the cost of each component of the project. If doing the work yourself, include a breakdown of materials and labor costs on a separate sheet of paper.

D. Location/Vicinity Map. An area map showing the location of the project within the city and county. The map must show the project in relation to highways, local roads/streets, landmarks, etc.

E. Site Map. Include an aerial map of your facility.

F. Schematic Plan. Include a schematic plan that shows the layout of the marina and the location where the project components will be developed.

### *Section 1 - Applicant Information*

Enter the contact information for the applicant and project manager. The project manager is the key person responsible for all grant compliance activities. This may be different from the construction project manager. All applicants must register with the Commonwealth of Pennsylvania Department of General Services vendor system. If you are not a registered vendor, register at https://www.pasupplierportal.state.pa.us/irj/portal/anonymous. Applications will not be processed without appropriate business registration.

### *Section 2 - Project Location*

Identify the facility name, location and driving directions to the site. Latitude and longitude measurements should be made in decimal degrees and at the location of the proposed sewage pumpout facility.

### *Section 3 - Project Information*

Identify the main facility components in the application.

Enter the amount of grant funds requested from the Clean Vessel Act Program. In addition, enter the amount of funding provided by the applicant in the form of cash or in-kind services and materials. Enter the amount of funding that has been applied for or awarded from other funding sources such as other grant programs, charitable contributions, or local partners, etc. Finally, enter the total cost for the project. The total cost for the project shown here should match the total project cost on the bottom of the Materials, Supplies, Products, Installation, etc. table on page 2 of the application.

Check the appropriate box or boxes for the project being submitted. Identify the types of permits that will be needed for the project and indicate the status of those permits. *(NOTE: Facilities must have any/all permits applicable to the pumpout project in place prior to initiating construction)*. Check the appropriate boxes for the location of the proposed pumpouts and the type of facilities planned. Estimate the number of vessels that will be served by the pumpout facility. Indicate the make, model number, and type of pumpout unit to be installed or upgraded. Describe where on the premises the pumpout unit will be located. Check the appropriate boxes for the method of sewage disposal, the availability of pumpout station services, and indicate if fees will be charged. Enter the times that the pumpout units will be available and the amount of money that will be charged for a pumpout. *Please note that the U.S. Fish and Wildlife Service (USFWS) allows a maximum fee of $5.00 per pumpout with no justification.* If higher fees are charged, they must be justified in this application and approved by the USFWS before they may be allowed. Finally, enter the anticipated start and completion dates for the proposed project.

### *Section 4 - General Facility Information*

Identify the current type of facility where the project will be implemented. Indicate if the facility is government owned or not by checking the appropriate box. Enter the number of wet, dry, and mooring slips available at your facility. Identify the names and the

distance in miles from any other sewage pumpout facilities that are located within a fifteen-mile distance of the facility.

### *Section 5 – Project Costs (Materials, Supplies, Products, Installation, etc.)*

Provide a detailed breakdown of all of the costs and quantities of materials associated with the project. Include vendor quotes, materials, supplies, products, and installation costs. Expenses for permits, construction, renovation, equipment purchase and installation, operations, maintenance and repair, sewage handling, signage, and educational materials are allowed for reimbursement. Please remember that grant recipients are reimbursed for 75% of the total approved project cost and must provide a minimum of 25% of the total approved project as match. Expenditures made prior to PFBC notification to the applicant to proceed with the project will not be reimbursed. Applicants may include in-kind labor costs as part of the project; however, they are not reimbursable and can only be used to meet the 25% match.

### *Section 6 – Project Narrative*

In the project description narrative, describe the following four elements of the project:

**Need.** State the reason why facilities are needed, or why the existing facilities need improvement. Provide a detailed need statement for the operation and maintenance of the pumpout facility. Exceptional needs—those which are unusual, new, or more costly—must be fully explained. Explain why this facility is important and what its operation will do to maintain or improve water quality.

**Objective.** Provide a concise statement of what the project will accomplish in terms of the stated need. Describe the objective of the operation and maintenance activities related to the purpose(s) of the facilities managed. For example:

- Operate and maintain stationary Pump-A-Head Model 200 sewage pumpout system designed to service the 200 boats moored in or visiting Shangri-La Marina during the summer boating season.
- Replace deteriorating hoses used to collect sewage from boats using the installed sewage pumpout station.
- Provide a convenient and cost-effective place for boaters on the Delaware River to dispose of sewage waste.
- Construct a permanent pumpout system connected to a municipal disposal treatment plant for use by boaters on the Delaware River in the vicinity of Essington, PA.
- Acquire and operate a portable pumpout station to service boaters using the facilities of Captain Bligh's Restaurant and Marina.
- Provide a location for boaters to dispose of wastes from their porta-potties.

**Expected Results and Benefits.** Identify and, to the extent feasible, quantify the effects on boating public use, including the numbers of boats served and other benefits as a result of the operation and maintenance of the facility. For example:

- Provide 200 pumpouts of boat holding tanks each month from June through September.
- Improve the quality of water in the Delaware River.
- Increase compliance with safe and efficient waste disposal and processing regulations.

**Approach.** Describe how the work is to be done. Include preliminary or rough plans and specifications in sufficient detail to allow proper evaluation of the proposal. If applicable, describe third party arrangements for operation and/or maintenance of the facility, including how revenue from any user fees will be handled. Provide a description of the capacity, type of construction, hours of expected operation, etc. Attach a diagram of the marina or boating facility showing the location of key structures such as office, slips, gas dock, etc. The diagram should show the location of the proposed pumpout and discharge lines. Describe specific procedures, schedules, key personnel, cooperators, grant location, and innovative approaches to encourage boaters to use the facilities. For routine operations and custodial maintenance, provide a general summary of required actions and estimate the total cost of all required actions. For cyclical maintenance, describe the specific work to be done.

### *Section 7 - Applicant Signature*

This section must be completed by an individual that has signing authority on behalf of the applicant. If this section is not completed, the grant application will be returned to the applicant as incomplete.

### *Section 8 – Required Attachments*

Check the box next to the required application attachments that are included with the application.

*NOTE: Applications submitted without all of the required attachments will be considered incomplete and will be returned to the applicant.*