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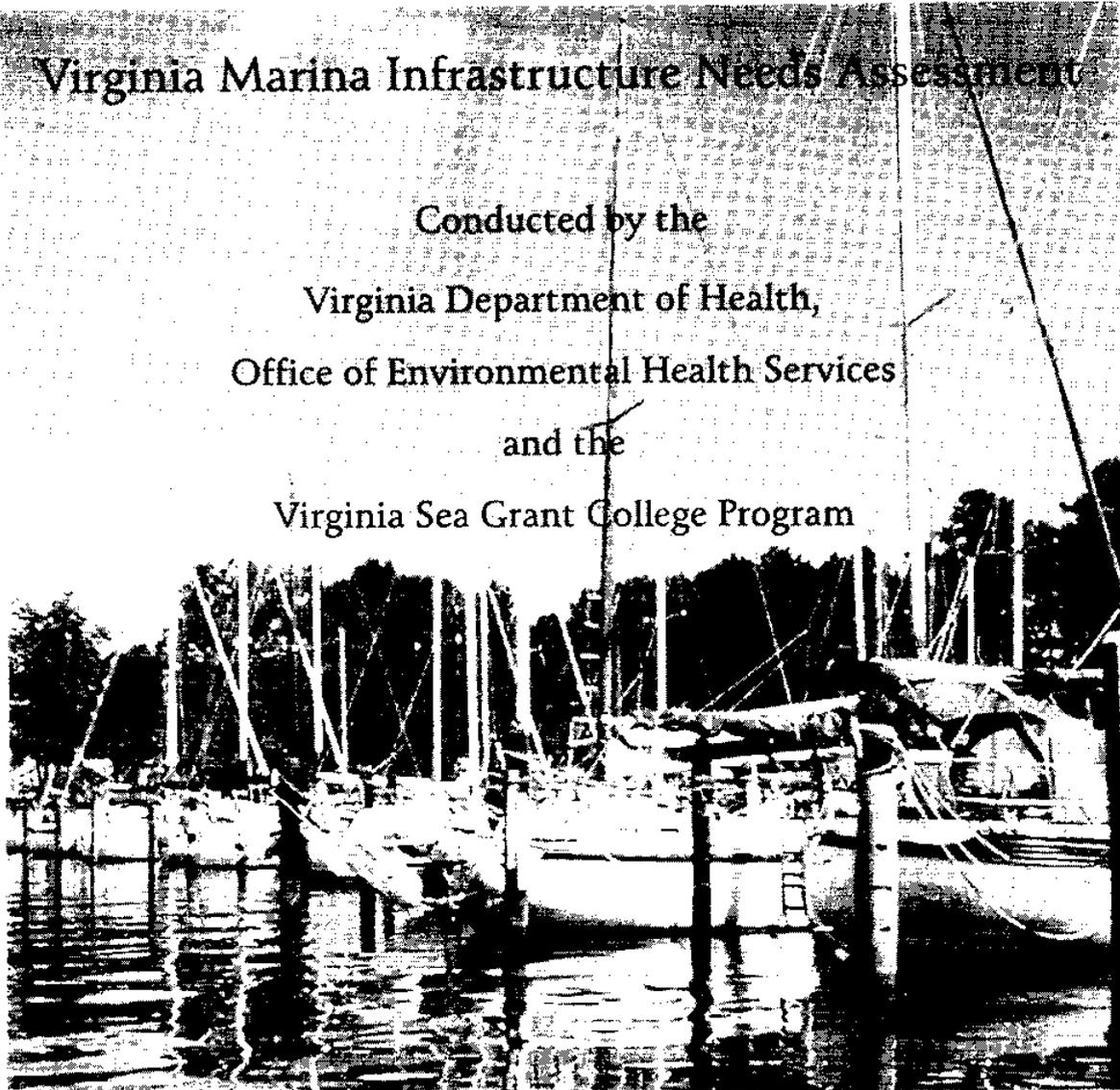
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# Virginia Marina Infrastructure Needs Assessment

Conducted by the  
Virginia Department of Health,  
Office of Environmental Health Services  
and the  
Virginia Sea Grant College Program



By

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## Virginia Boating Access Needs Assessments

### ***Background***

In an effort to support Virginia's application for federal grant funds under the Department of Interior's "Boating Infrastructure Grant Program" (Grants), the Marina Technical Advisory Program (MTAP) at the Virginia Institute of Marine Science has undertaken assessment of the state's recreational boating infrastructure needs.<sup>1</sup> A total of \$32 million has been authorized over four years to fund this new program. It is designed to help states develop and maintain facilities for transient, non-trailerable (26' *and over*) recreational boats. The Virginia Department of Health (VDOH) is providing overall leadership in the Boating Infrastructure Grants process, supported by the Virginia Sea Grant College Program in completion of this needs assessment.

The completion of a boating infrastructure needs assessment, in furtherance of the state's eventual application, was to follow the guidelines for surveys and survey instruments presented by the U.S. Fish and Wildlife Service in their proposed final regulations published January 20, 2000. The survey was to be conducted in a way that included facility providers that serve boats of 26' in length and over as well as facilities that serve boats of less than 26'. In view of the fact that it was not known initially which marinas – or how many – comprised the two groups, a single survey instrument was considered most efficient and was drafted to follow the "Grants" Proposed Rule and associated survey document found in the Federal Register. The survey instrument included the required questions for both size classes of boats.

The selection of marinas to be surveyed began with the evaluation of a list of marinas in Virginia provided by VDOH. The list was further evaluated and sorted to target marinas located in zip codes corresponding to Tidewater Virginia. Focus upon the coastal and estuarine region permitted evaluation of the most extensive component of the marinas

sector in Virginia, and that region with potentially the greatest demand for growth in transient boater access.

### ***Survey Methodology***

At the present time there is some uncertainty about the number of marinas in Virginia. An accurate count is nearly impossible due to the conversion of marinas into condominiums, name changes accompanying marina sales, etcetera. To initiate the infrastructure needs assessment; VDOH provided a marina database, which contained 829 contacts.<sup>2</sup> The list also identified which of the contacts was a marina *and* offered services in addition to dockage. From that subset, a sample population was derived representing contacts with mailing zip codes in Tidewater and coastal Virginia locations. The reduced population of 385 marina contacts was sent a survey instrument (Appendix A)<sup>3</sup> and cover letter of explanation during the week of August 12 requesting the completion of the survey with return by September 15, 2000.

In order to better develop a “control” number of marinas, available databases were also obtained and reviewed. One major commercial directory is the “Marine Publishing Company” (MPC) directory. The widely used MPC Boaters Directory covers all regions of the nation and is updated regularly. With on-line capabilities, the MPC allows detailed searches by industry type and region. The data assimilated as a result of the MPC search listed a total of 205 marinas in the Chesapeake region of Virginia. A cross check of the

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<sup>1</sup> National Boating Infrastructure Grant Program U.S. Fish and Wildlife Service, Department of Interior. Federal Register / Volume 65 No. 13 / January 20, 2000.

<sup>2</sup> DOH defines a marina as: “any installation operating under public or private ownership, which provides dockage or mooring for boats and provides through sale, rental or fee basis, any equipment, supply or service (fuel, electricity or water) for the convenience of the public or its lessee, renters or users of its facilities.” “Commonwealth of Virginia Sanitary Regulations for Marinas and Boat Moorings”, State Department of Health, VR-355-17-01 Article I Part I, Richmond, Va., 1990.

<sup>3</sup> The preliminary survey instrument was field tested during personal visits with three marina operators and their revisions and recommendations for clarity, etc. were included in the instrument prior to its printing and final distribution.

MPC list with the refined DOIH marina list allowed further confirmation of selected survey recipients and added further integrity to the overall marina population estimates. <sup>4</sup>

Additionally, a list of 100 marina facilities in the Tidewater region of Virginia developed for an earlier assessment intended to assess implementation of water quality best management practices was reviewed to insure its inclusion into the subject marina survey list.<sup>5</sup>

A search of the U.S. Bureau of Labor Statistics (BLS) database was conducted to obtain further indicators of the number of marinas in Virginia. The BLS data on employment and wages (ES202 Covered Employment & Wages) includes information on the number of establishments by county for the nation and Virginia. Utilizing the standard industrial classification code (SIC) for marinas (SIC 4493), a search of this database was conducted. The most recent ES202 data available for Virginia was the year 1998. The BLS information reflected a total of only 93 covered marinas for the state as a whole. <sup>6</sup>

### ***Survey Results***

The initial survey resulted in 48 returns for incorrect addresses and 36 responses of non-applicability. The latter group did not complete the survey and explained that they were generally individuals whom, for example: reportedly did not operate marinas or have slips for boats, operated homeowner private piers and docks or condominium docks, owned launch ramps only, or had lost marina structures during Hurricane Floyd. Of the remaining returns, 52 were usable surveys.

In order to broaden the response, a second letter of request and survey were sent out to marinas during the first week of October with a request for completion and return by

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<sup>4</sup> "MPC Business to Business Directory" Marine Industry Edition 2000-2001. www.mpconline.com Marine Publications Company Irvine, California. October 6, 2000.

<sup>5</sup> "Assessing Current Implementation of Water Quality BMPs for Marinas in Virginia's Coastal Zone". Final Report of the Virginia Marine Resources Commission to the Department of Environmental Quality.

October 27, 2000. The second mailing was limited to 150 non-responding marinas considered to be in business by comparing information from other databases, through personal inquiry with the marina industry, and by eliminating addresses that included only the names of individuals (not marinas).

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<sup>6</sup> Covered Employment and Wage Data for Virginia and Selected Counties from 1997-Present." U.S. Department of Labor, Bureau of Labor Statistics. Philadelphia Pennsylvania. August 25, 2000.

### ***Response Rate***

After adjusting for the above factors, it is estimated that a total of 220-250 bonafide public and private commercial marinas are currently operating in the Tidewater Virginia area. A total of 72 complete and usable surveys were received for an estimated response rate of 29-33%. An additional 36, or 14-16%, of the questionnaires were returned but could not be used due to either non-applicability or incomplete information. The overall return rate for marinas was 43-49%.

The reader should be aware that the sample data reported here is not to be interpreted as based upon a scientifically selected sample within prescribed margins of error. Due to the complexity of the marina industry, no assessment of the accuracy of the sample data can be made. The mailings represent an attempt to contact the entire population of marinas in Virginia's coastal zone. The averaging of results and reported ranges of data reported here may be considered representative of marinas in Tidewater Virginia; however, it should be recognized that wide differences exist between marinas across and within regions of the state. Also, it should be emphasized that the nature of the survey was to assess the *need* for and *interest* in government associated grants for boating infrastructure development. Sufficient returns suggesting there was no interest in such a program are indicative of some potential bias in the survey results, and may further explain the response rate.

In addition, the reader should note that the responses were made as best estimates of the marina managers responding. While not formally verified, responses are believed to be representative for this purpose – evaluating Virginia's marina industry infrastructure needs, relative to transient boat service in a format prescribed by the funding agency.

## The Survey Data Summary

### *Descriptive Analysis of the Sample*

**Table 1. Average % of facility use by number of boats served in most recent year<sup>7</sup>**

Boat Length	% Power Boats	% Sailboat	% Pontoon Boat	% Other Recreational	% Commercial
Under 26'	25	9	2	6	4
26' and Over	31	16	1	8	7
Total	56	25	3	14	11

**Table 2. Average use and accommodations of marinas reporting # (range)**

% With Transient Boats	# Transients Boats	Largest Boat Length	Largest Draft	# Of Wet Slips	# Moorings	# Out Water spaces
65%	25 (0-2500)	63 (26-210)	6 (2-15)	70 (2-440)	4 (1-80)	50 (0-500)

### *Requirements for Marina Use*

- 62% of marinas reported that they operated on a “first come first served” basis.
- 5% of responding marinas required club membership.
- 30% of respondents indicated that reservations were either required or recommended.
- 74% of responding marinas charged a dockage fee.
- 1.5% of respondents had governmental or special use permits.
- 3% of respondents posted “off limits areas”.
- 14% of respondents had use restrictions for seasonal or peak events (for example 4<sup>th</sup> of July).
- 3% of respondents have “Hourly Use Restrictions.”

<sup>7</sup> The respondents in some cases provided breakdowns by numbers rather than percentages, and for total rather than size class thus the percentages do not equal 100% by length of boat. The results should be considered indicative of the relative composition of the marina customers' boat size.

***Types of services provided at Virginia's Tidewater marinas:***

- **80%** offered transient slips or tie-ups.
- **15%** offered transient moorings.
- **56%** offered gasoline sales.
- **48%** offered diesel sales.
- **91%** offered utilities:
  - i - Power 91%
  - ii - Water 91%
  - iii - Other 7.5%
- **91%** offered restrooms/showers.
- **77%** provided sewage pump outs.
- **79%** offered dump stations for portable toilets.
- **47%** provided haul-out facilities.
- **48%** furnish necessary repair and maintenance services (electrical, mechanical, painting, etc.).
- **56%** provided a boat-launching ramp.
- **41%** offered additional services and shore-side amenities such as shuttles, day-care, recreation facilities, etc.).

***Overall Rating of Facility Condition:***

- **8%** rated their facility "Excellent": *"with no improvements needed."*
- **28%** rated their facility "Good": *"will require upgrades within 10 years."*
- **41%** rated their facility "Fair": *"will require upgrade within next 5 years."*
- **23%** rated their facility "Poor": *"requires upgrade now."*

***Average estimated replacement costs of improvements; and, the annual maintenance costs for responding marinas.***

Average Replacement Costs of Existing Building and Improvements:  
\$1,239,676 (range \$7,500-\$6,000,000)

Average Needed Improvement Costs:  
\$317,868 (range \$2,000-\$2,000,000)

Average Maintenance Costs: Existing Building and Improvements:  
\$ 25,046 (range \$500-\$85,000)

	<i>Repair</i>	<i>Replace</i>	<i>Expand</i>	<i>Add New</i>
Transient slips or tie-ups	11	14	17	25
Transient Moorings	1	2	1	9
Gasoline Facilities	8	9	7	5
Diesel Facilities	7	7	3	6
Utilities:				
Power:	10	12	13	13
Water:	9	7	10	9
Other:	5	10	5	7
Restrooms	15	6	15	10
Oil Disposal	3	0	3	14
Sewage Pump-outs	3	8	5	5
Haul-out Facilities	6	0	6	2
Painting Facilities	2	0	1	4
Boat Launching Ramp	17	7	2	2
Other	6	6	3	12

<sup>8</sup> The numbers are not additive due to multiple responses by marinas regarding individual "needs".

***Primary Reasons for Boaters selecting individual marinas.***

**Average ranking of the primary reasons that boaters use individual marinas with #1 being top reason:**

- Access to nearby cultural, historical attractions - 4
- Access to natural, scenic attractions - 3
- Access to services (shopping, dining) - 4
- Good water quality for fishing - 2
- Good water quality for swimming - 5
- Sheltered Location - 2
- Access to Primary Residence - 3
- Other - 1

*Other reasons specified:* For example, modern clean facilities; boatyard and services located near offshore and inland routes; cost; covered slips; no other nearby access; access to sailing grounds; only fuel services within miles; access to ICW; boat repairs; quality of work; reputation and location; ease of boat handling-dry storage.

***Virginia Marina's Interest in the Boating Infrastructure Grants Program***

Percent of responding marinas that would be interested if public funding sources were available for facility repair, improvement, expansion, or additions:

YES – 45%

NO – 5%

MAYBE – 8%

Request Further information – 25%

## **APPENDICES:**

Appendix A	Marina Survey 2000 (3 pgs.)
Appendix B	Chart of Educational Needs Survey (1 pg.)

# Marina Survey 2000

## Virginia Recreational Boating Infrastructure/Needs Assessment

Fax: 804-684-7161 or mail to:

VIMS - Attention-Tom Murray-P.O. Box 1346-Gloucester Point, VA 23062

Please return by September 15, 2000

If you operate a public or private marina or other tie-up facility that serves boats in coastal Virginia please answer the following questions:

1. Please identify the primary boating facility you operate or manage in the State:

Marina Name: \_\_\_\_\_  
 Address: \_\_\_\_\_

Location: Lat/Long: \_\_\_\_\_

Name of contact person completing survey: \_\_\_\_\_

Telephone: \_\_\_\_\_

2. For your primary facility listed above, please estimate the percentage of use for each boat type, where the percentage of use for all boats equals 100%:

% Of facility use by number of boats served over the most recent year						
Boat Length	Power Boats %		Sailboat %	Pontoon % Boat	Other % Recreational	Commercial %
	Gas	Diesel				
Under 26'						
26' and over						
Total						

- 2 (a). How many "transient" boats used your marina during this most recent year? \_\_\_\_\_

What is the largest boat, which you currently can accommodate at your marina?

Length: \_\_\_\_\_ Draft: \_\_\_\_\_

3. How many boat slips and moorings are available at your marina? Boat slips \_\_\_\_\_ Moorings \_\_\_\_\_

4. Please list the number of out-of-water or dry stack storage spaces available: \_\_\_\_\_

5. Please indicate with a check mark or "x" any requirements for a boater to use your marina:

None (first come first served) \_\_\_\_\_ Club membership required \_\_\_\_\_  
 Reservations required \_\_\_\_\_ Dockage fee charged \_\_\_\_\_  
 Any governmental special use permits \_\_\_\_\_ Has "off limits area" \_\_\_\_\_  
 Seasonal or peak events (for example 4<sup>th</sup> of July) \_\_\_\_\_ Use restrictions \_\_\_\_\_  
 Hourly use restrictions \_\_\_\_\_ Other? Please explain briefly: \_\_\_\_\_

6. Please identify the types of services provided at your marina:

a) Transient slips/ Tie-ups \_\_\_\_\_ b) Transient moorings \_\_\_\_\_  
 c) Gasoline \_\_\_\_\_ d) Diesel \_\_\_\_\_  
 e) Restrooms/showers \_\_\_\_\_ f) Utilities: i. Power \_\_\_\_\_ ii. Water \_\_\_\_\_ iii. Other \_\_\_\_\_  
 g) Sewage Pump outs \_\_\_\_\_ h) Dump stations for portable toilets \_\_\_\_\_  
 i) Haul-out facilities \_\_\_\_\_ j) Services (electrical, mechanical, painting, etc.) \_\_\_\_\_  
 k) Boat launching ramp \_\_\_\_\_  
 l) Other, please identify briefly (for example shore-side amenities such as shuttles, day-care, recreation facilities, etc.) \_\_\_\_\_

7. Please indicate how you rate the overall condition of your facility:

- Excellent-no improvements needed \_\_\_\_\_  
 Good-will require upgrades within 10 years \_\_\_\_\_  
 Fair-will require upgrade within next 5 years \_\_\_\_\_  
 Poor-requires upgrade now \_\_\_\_\_

8. If Answer to Question 7 above was "Excellent" you may skip this question.

What improvements repairs, replacements or additions are needed at your facility?

(Please indicate with a check mark or an "x")

	Repair	Replace	Expand	Add New
Transient slips or tie-ups				
Transient moorings				
Gasoline facilities				
Diesel facilities				
Utilities: Power:				
Water:				
Other:				
Restrooms				
Oil disposal				
Sewage pump outs				
Haul-out facilities				
Painting facilities				
Boat launching ramp				
Other				

9. Thinking about your local area or other areas of the State with which you are familiar, and where no facilities currently exist, what from the table in question 8 should be built? (please specify site, area of river, lake, etc.) \_\_\_\_\_

10. Please rank the primary reasons that boaters use your facility with # 1 being the top reason:

- Access to near-by cultural, historical attractions \_\_\_\_\_ Access to natural, scenic attractions \_\_\_\_\_  
 Access to services (shopping, dining) \_\_\_\_\_ Good water quality for fishing \_\_\_\_\_  
 Good water quality for swimming \_\_\_\_\_ Sheltered location \_\_\_\_\_  
 Access to primary residence \_\_\_\_\_ Other (Please specify) \_\_\_\_\_

11. Please estimate the replacement costs (not including land); and, the annual maintenance costs for your marina. (For example, you can use the "Insured Value" on the facilities property casualty insurance policy to readily estimate replacement cost).

**Replacement Costs:**

Existing building and additional structures: \$ \_\_\_\_\_

Also please add the estimated cost of needed improvements in question 8:

**Needed Improvement Costs:**

\_\_\_\_\_ \$ \_\_\_\_\_  
 \_\_\_\_\_ \$ \_\_\_\_\_

**Maintenance Costs:**

Existing building and additional structures \$ \_\_\_\_\_

12. If public funding sources were available for facility repair, improvement, expansion, or additions, would you be interested? YES \_\_\_ NO \_\_\_ MAYBE \_\_\_ I'd like more information. \_\_\_\_\_

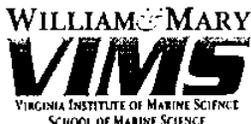
## INDUSTRY NEEDS ASSESSMENT

What priorities should the Marina Technical Advisory Program at VIMS have to assist you in your marina operation? For example, Best Management Practices (BMPs) have been developed in conjunction with the marina industry and regulators. Please indicate below the topics that you would be interested in obtaining assistance with, by ranking them according to your overall priority areas:

**(1= high priority, 2= moderate priority, 3 = low priority, 4 = not important at all, 5 = no opinion.)**

- N1. Site Considerations For New and Expanding Marinas- (For example; legal setting, permit information, marina flushing, water quality, etc.)  
Priority (1-5) \_\_\_\_\_
- N2. Marina Design and Maintenance (For example; marina facilities and structures, shoreline stabilization, protecting sensitive habitat, etc.)  
Priority (1-5) \_\_\_\_\_
- N3. Emergencies (For example, storm preparations, fires, medical, legal setting, etc.)  
Priority (1-5) \_\_\_\_\_
- N4. Petroleum (For example; spill prevention control and countermeasure plan (SPCC), spill control or retainment, regulations and design, bilge-water, etc.)  
Priority (1-5) \_\_\_\_\_
- N5. Vessel Maintenance and Repair Priority (For example; legal setting, boat cleaning in/out of the water, painting, etc.)  
Priority (1-5) \_\_\_\_\_
- N6. Habitat and Species (For example; minimizing introduction of exotic species, endangered species legal setting, boat wake impacts, etc.)  
Priority (1-5) \_\_\_\_\_
- N7. Wastes (For example; management and disposal of hazardous and non-hazardous solids and liquids, fish waste, batteries, etc.)  
Priority (1-5) \_\_\_\_\_
- N8. Storm-water (For example; landscape management to reduce run off, etc.)  
Priority (1-5) \_\_\_\_\_
- N9. Sewage and Gray Water (For example; pump-out financial assistance, legal setting, etc.)  
Priority (1-5) \_\_\_\_\_
- N10. Marina Management (For example; staff training, business practices, educate contractors and patrons, etc.)  
Priority (1-5) \_\_\_\_\_
- N11. Boater Education (For example; recycling, sewage, fish wastes, etc.)  
Priority (1-5) \_\_\_\_\_
- N12. Information on Financial Assistance/Loans/Grants  
Priority (1-5) \_\_\_\_\_
- N14. Most Importantly**, please take a moment to list any other areas where your marina business could benefit from targeted information or education; or, any other comments you would like to make regarding Virginia's marina industry. \_\_\_\_\_
- 

Thank you very much for your assistance with this survey. If you have any questions or need any assistance related to the above priorities please contact:



Harrison Bresee (804) 684-7768  
Tom Murray (804) 684-7190  
Please return by September 15, 2000  
Fax: 804-684-7161 or mail to:



VIMS - Attention-Tom Murray-P.O. Box 1346-Gloucester Point, VA 23062

## Virginia Marina Educational Needs - 2000

