TECHNICAL MEMORANDUM

TO: Andrea Sweigart
EDAW/AECOM

FROM: **MOFFATT & NICHOL**

DATE: December 4, 2009

RE: MARKET ASSESSMENT DATA

This memorandum documents the Alexandria regional boating market as it relates to the existing Alexandria City Marina in accordance with Moffatt & Nichol's limited scope of services in support of EDAW/AECOM. The objective of this summary, prepared in accordance with task 4.3 of the Phase 1 scope of work, is to outline trends in the regional boating market with regards to slip demand, vessel class and size, slip pricing, support facilities, and amenities to assist EDAW/AECOM with programming of the waterfront. Information within this summary is based upon professional knowledge and experience in the region, city reports, discussion with city staff and memoranda from City staff (RPCA Park Planning, June 12 and November 18, 2009).

1.0 Alexandria City Marina

The Alexandria City Marina consists of 62 boat slips, three T-head piers and hundreds of feet of seawall docking space. The following summarizes marina operations as reported in the memoranda by City park planning staff (RPCA Park Planning, June 12 and November 18, 2009) and communication with the project team (RPCA Park Planning, August 12 2009):

- Docking facilities include 57 annual pleasure boat lease slips, 1 fire boat slip, 4 transient slips, 17 T-Head, seawall slip (no electric) and gazebo docking locations and 6 commercial lease moorings
    - Total capacity approximately 85 vessels
    - 6 commercial vessels currently berth at the docks
        - Lease rates vary - negotiated individually
    - 57 slips reserved for license agreements (annual leases)

        - In the past five years, typically there was reported a waiting list (25 to 50 names)
        - $8.00/ft/month for residents; $9/ft/month non-residents. Annual lease only
    - 22 slips for transients
        - Demand exceeds supply in-season
        - $12 for a 4 hour stay in 2009; $15 in 2010
        - Longer stay is $1.50 per ft in-season per night plus electric
    - Location of short-term commercial visits is dependent on length, beam and freeboard of vessel; commercial vessels can be scheduled to dock in slips.
    - Short term commercial visits on "T" heads
        - Demand "far exceeds" supply
        - $3 per ft per day
- Boat Slips Utilities & Amenities
    - Electric
        - 61 slips and 3 T-heads have electric
        - 3 T-heads and 2 slips have 50 amp electric
        - One 100 amp
    - Potable water on each dock
    - Fire suppression installed in 2002
    - Pump-out - free for agreement holders, $25 for others
    - Showers and restrooms available (access controlled and available to leaseholder and over-night guests only)
- Revenue and Expenses are identified tables below with description as provided by RPCA staff in memo dated November 18, 2009:

Table 1: Operating Revenue

	FY2007	FY2008	FY2009
Pleasure Boat Leases	$106,946	$96,538	$127,677
Transient Boat Short-Term	$18,891	$15,376	$16,436
Transient Overnight	$80,688	$75,363	$68,578
Commercial Leases	$101,659	$92,725	$101,711
Total	$308,184	$280,002	$314,402

Table 2: Expenses

	FY2007	**FY2008	**FY2009
Personnel	$151,139	$384,456	$358,454
Non Personnel	$16,677	$22,660	$20,067
Total	$167,816	$407,116	$378,521

* Note most marina expenses are incurred in services provided to pedestrian foot traffic and maintenance of tourist destination (pedestrian). Expenses incurred in service of boat traffic (exclusive of pedestrian traffic) are unknown.

**Note in FY2008 and FY2009 RPCA Department Administrative Personnel Costs were split across all accounts regardless of relevancy. There is no mechanism to allow for the removal of personnel costs that were not directly or indirectly assumed by the marina.

- Facilities
  - Based on a summary of the June 12, 2009 RPCA memo, the Marina Subcommittee minutes of September 17, 2009 and discussion with city staff, a number of facility improvements are needed including, but not limited to: sidewalk repair, seawall and infrastructure repair, replacement of broken pilings, improved security (access, control, surveillance), ADA improvements, improved amenities (such as electric), additional slips to accommodate larger vessels and tall ships, improvements to dockmaster's office, restrooms and floating docks, etc. Please refer to the June 12, 2009 memo for more information.

2.0 Market Area

Nationwide studies and boater interviews suggest boaters are willing to travel up to one hour from home to reach their boat. Using this guideline, the marina market region for Alexandria City may be defined geographically as Washington D.C. (D.C.) and surrounding areas including Montgomery and Prince George's County in Maryland and Fairfax, Arlington and Prince William County in Virginia (Figure 1). North of this area, the narrowing of the Potomac River, low clearance bridges, and the presence of the Brookmont Dam limits the marina market. The D.C. geographic market area overlaps with adjacent marina markets including the Annapolis market and coastal Chesapeake Bay as boaters in the D.C. area may choose to keep their boat in these adjacent markets; however, boaters do not tend to travel regularly between these markets. In addition, these markets vary demographically as boaters in the Annapolis market are more predominantly sailing and open water oriented, reflecting Annapolis' proximity to the

Chesapeake Bay, while boaters in the D.C. market participate in river based and local destination based activities.

According to information provided by RPCA, all current non-resident leaseholders in the City's marina reside in Fairfax and Prince William Counties. RPCA also notes that the largest percentage of transient vessel owners hail from Prince William County. Many factors contribute to the willingness of boaters to travel including their individual recreational interests, access, availability of slips, and nearby amenities as well as the price of fuel and transient slip prices. Boaters will return to a destination based on their experiences on prior visits including customer service at the marina.

The Washington D.C. market area can be further geographically separated into two sub-markets; 1) downtown marinas and 2) suburban marinas in Maryland and Virginia. Boat usage in these two sub-regions differs. The "downtown" marinas serve the adjacent tourist destinations and provide berthing for the majority of the tourist transient vessels as well as accommodating local boaters and several social clubs. In addition, the downtown marinas are popular among "live-aboard" boaters. Only two marinas in the regional market area, the City of Alexandria and National Harbor, maintain a substantial number of designated transient slips. The "suburban" marinas tend to support regional boaters and are analogous to "parking lots" for boats with no live-aboards permitted.

It should be noted that there is a trend with recent waterfront development to promote water-based connectivity between regional market areas. Commercial water taxi service will connect the City of Alexandria waterfront with Diamond Teague, at the Nationals Ballpark as well as National Harbor.

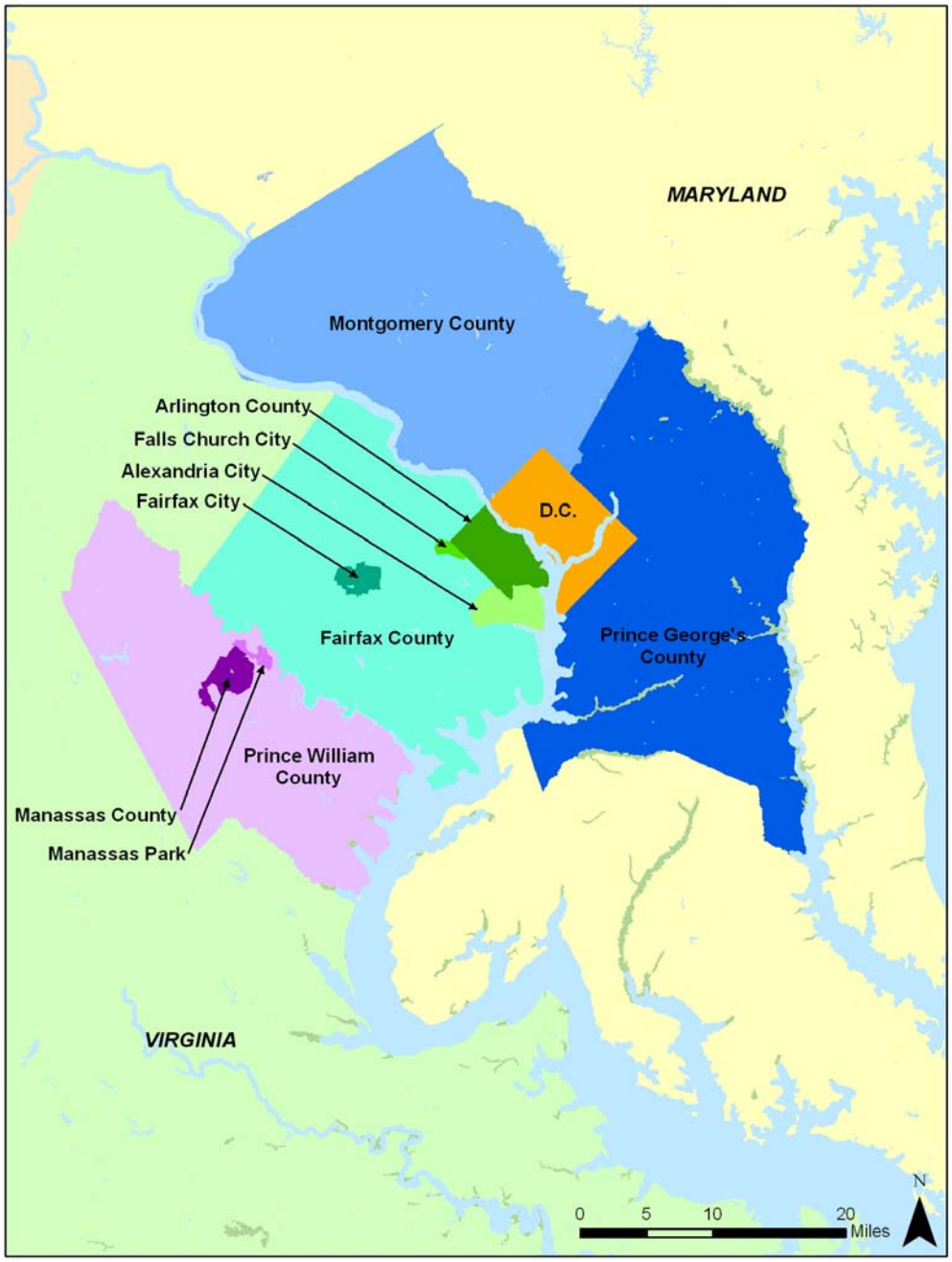

Figure 1: Context Map

Existing Marinas

For this study, 26 marinas were identified in the D.C. market comprising approximately 3,800 slips. The location of each marina is shown in Figure 2 and number and size of slips in each marina is shown in Table 3. The source of the data is a historical database of regional marina markets; the data was compiled by a combination of site visits and phone interviews by Moffatt & Nichol. As part of this study, the regional database was reviewed and updated by telephone interview, where possible, in June 2009.

The marinas in Table 3 range from residential community marinas to members-only yacht clubs. There are more than 2,500 slips less than 40 feet in length in the existing market and only 1 percent of slips capable of accommodating vessels 80 feet and longer. The majority of the vessels occupying slips in the D.C. market are power boats and small sailboats. While weather in this area is favorable for sailing, which is a popular activity in the nearby Chesapeake Bay, river width restrictions and shallow draft (outside of the federal navigation channel) limit the size vessel that can comfortably sail these waters. Height restrictions due to bridges are also deterrents for sailboats. The 75-foot clearance afforded by the newly reconstructed Woodrow Wilson Bridge can accommodate a sailboat up to approximately 46 feet (Tobiasson, 2000). Larger vessels may still be accommodated through the Woodrow Wilson Bridge drawbridge opening, although the hours are restricted to off-peak times.

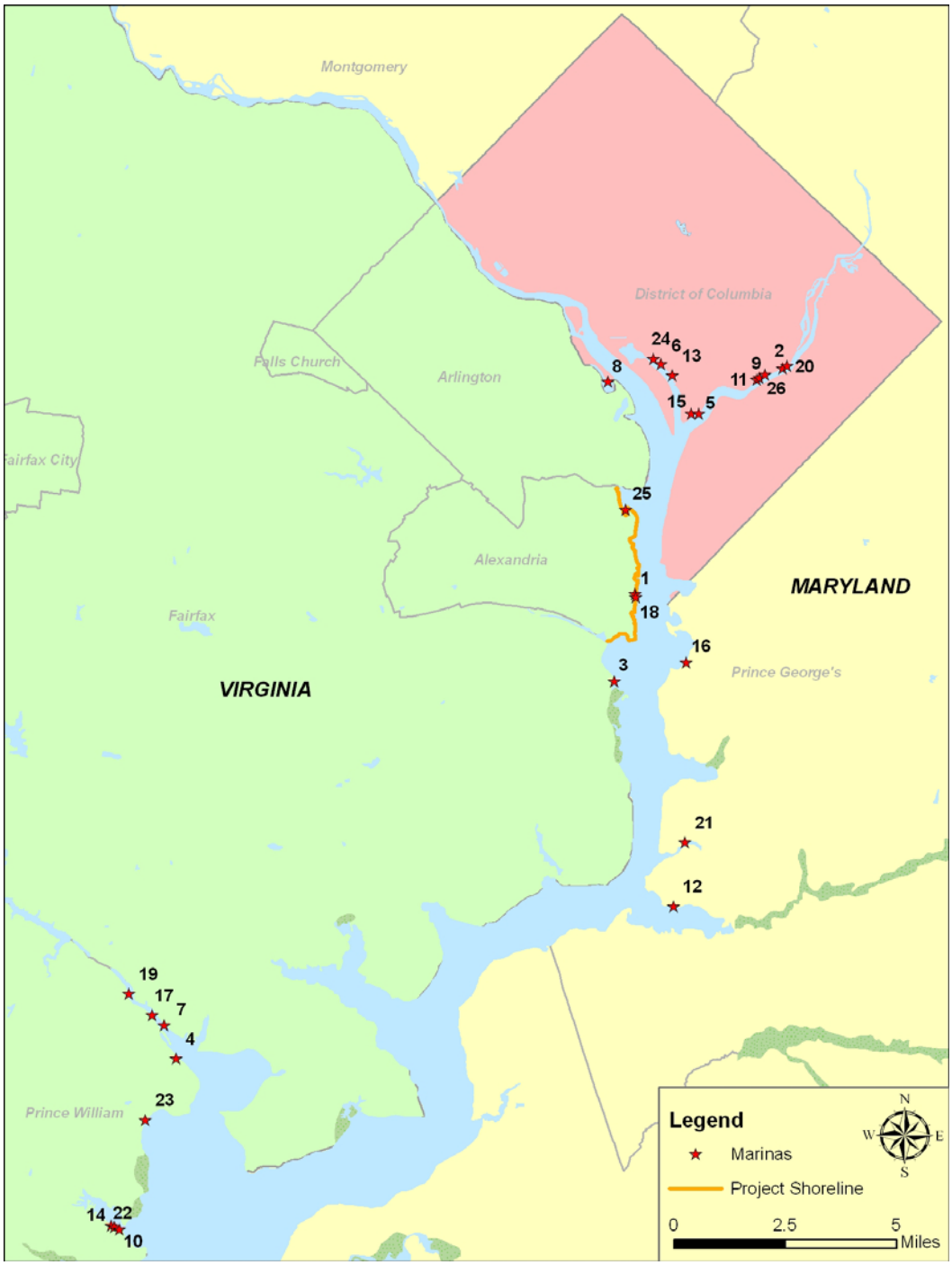

Figure 2: Existing Marinas

Table 3: D.C. Market Marina Slip Allotment by Size

		Total Slips	Percentage of Slips by Length (feet)						
			20-29	30-39	40-49	50-59	60-69	70-79	80+
1	Alexandria City Marina	**62**			100%				
2	Anacostia Marina	**75**	4%	67%	21%		8%		
3	Belle Haven Marina	**128**	14%	41%	41%	5%			
4	Belmont Bay Harbor Marina	**151**	21%	64%	16%				
5	Buzzard Point Boat Yard	**85**	64%	28%	5%	4%			
6	Capital Yacht Club	**78**			44%	28%	24%		4%
7	Captain John S. Beach Marina	**84**	79%	21%					
8	Columbia Island Marina	**380**	58%	32%	4%	6%			
9	District Yacht Club	**43**		30%	65%	2%			2%
10	Hampton's Landing Marina	**123**	29%	41%	29%				
11	Eastern Power Boat Club	**29**		21%	66%	10%	3%		
12	Fort Washington Marina	**300**	67%	20%	13%				
13	Gangplank Marina	**303**	17%	24%	40%	8%	8%		4%
14	Pilothouse Marina	**219**	60%	28%	12%				
15	James Creek Marina	**294**	51%	35%	14%				
16	National Harbor Marina	**66**			48%		48%		3%
17	Occoquan Harbor Marina	**199**	63%	24%	9%	3%	2%		
18	Old Dominion Boat Club	**52**	63%	29%	8%				
19	Prince William Marina	**351**	32%	54%	5%	9%			
20	Seafarer's Yacht Club	**66**	15%	68%	14%		3%		
21	Tantallon Marina	**106**	52%	12%	25%	11%			
22	E-Z Cruz Marina	**187**	58%	36%	6%				
23	Tyme n Tyde Marina	**29**	52%	41%	7%				
24	Washington Marina Co	**111**	77%		13%	1%	4%	3%	3%
25	Washington Sailing Marina	**200**	70%	30%					
26	Washington Yacht Club	**40**	35%	30%	35%				
	Total	**3,759**	**45%**	**32%**	**16%**	**4%**	**3%**	**0.1%**	**1%**

Source: Moffatt & Nichol historical database; updated June 2009.
Note: Table is organized alphabetically.

Amenities

Table 4 indicates potable water and electric are the two most commonly provided amenities in the regional market. As many of the marinas in the market area are older and have a predominance of smaller slips, power is generally available at 30 amps with some marinas offering 50 amps and two marinas offering 100 amps. The 50 and 100 amp services are offered only at a few slips. National Harbor, opened in spring 2008, caters specifically to larger vessels with large slips and 100 amp power. Dockmasters in the market reported increased power as the most necessary amenity upgrade at existing facilities due to increased standard amenities offered on vessels, such as air conditioning, television and audio systems.

Table 4: Available Amenities

Amenity	Number of Marinas
Potable Water	26
Electric	25
Sanitary Pump-out	23
Gas	12
Ice Machine	12
Shower	12
Restaurant	9
Diesel	7
Satellite TV/Cable	6
Bar	5
Laundry Facilities	5
Telephone	4
Internet	4
Shopping	2
Swimming Pool	2
Hotel	1

Source: Moffatt & Nichol database; updated June 2009.

Sanitary pump-outs are becoming a more prevalent amenity at marinas as the use of pump-outs creates a cleaner marina environment by decreasing the number of vessels that illegally empty waste into the marina basin. Newly constructed or renovated marinas are often required to have pump-out available in order to obtain a permit to decrease the negative impact of the marina on the environment. However, pump-outs are not required in all regional marinas.

The amenities offered at most regional marinas, especially the "suburban" marinas, are consistent with serving the local boating market. Marinas catering to local boaters offer amenities such as ice and packaged food and drink consistent with day-boating activities like fishing or cruising. These marinas may also include on-site repair capabilities and include a ship's store for parts. Marinas serving live-aboards and transient boaters typically provide

showers, laundry, satellite TV/cable, telephone, and internet in addition to sufficient power and water. A marina may be considered a destination if shopping, restaurants, and bars are located within close proximity or the marina facilitates access to a tourist location.

As identified above, the City of Alexandria Marina has many of the basic services offered at marinas catering to local boaters. At the City Marina there is potable water service to all docks. The majority of slips (61) have 30 amp electric service; 3 T-heads and 2 slips have 50 amp service and there is one 100 amp outlet. Sewer pump out facilities are available. The City Marina does not have gates or full-time security staff monitoring the area. (RCPA, September 2007)

Recommendations have been made by City staff to enhance out-dated facilities and infrastructure, upgrade base electric and provide security commensurate with other facilities in the market which cater to both local boaters and transients. (RPCA Park Planning, June 12 2009)

Pricing

Slip lease rates in the regional market vary and are influenced by location, type of facilities, amenities, season and slip size. Table 5 shows published rates for the regional market area.

In the region, marinas provide electric services to slip holders using one of three different pricing methods. The Capital Yacht Club meters power at each slip and passes the electricity rates through to the slip holder based on the power company's metered rates. This requires the additional cost of electric meters for each slip and effort to read the meters. Columbia Island and the City of Alexandria marinas, as noted in Table 3, include utility services in the base lease rate. Several marinas charge an additional fixed monthly rate for an electric hook-up based on the slip size; for example, at James Creek a monthly utility charge for a 40 ft vessel per connection is $45/month, or an additional $1.125/ft/month above the base rate.

The existing wet slip lease price range for a transient vessel is $1-$3 per foot per day. Marinas located near downtown D.C. and Alexandria as well as larger slips command the higher end of the spectrum while those on the lower end are further from the city center and have older, smaller docks. These trends carry into the monthly and annual lease slip rates. Monthly ranges

are on the order of $6-$17 per foot per month and the annual ranges are slightly discounted to $5.50-$15 per foot per month.

Table 5: Marina Market Slip Lease Rates

Marina	Rate per Foot		
	Daily (/day)	**Monthly (/month)**	**Annual (/month)**
District Marinas			
Buzzard Point Marina	$1.00	$7.25	$7.25
Capital Yacht Club	$1.50 - $3.00	*Yacht Club Rates Not Applicable*	
District Yacht Club	*Yacht Club Rates Not Applicable*		
Eastern Power Boat Club	*Club Rates Not Applicable*		
Gangplank Marina	$1.50	$13.60 - $17.00	$11.00 - $15.00
James Creek Marina	$1.25	$9.00 - $10.25	$8.00
Seafarers Yacht Club	*Yacht Club Rates Not Applicable*		
Washington Marina Company	$2.00	$12.00	$9.67 - $12.00
Virginia and Maryland Marinas			
Alexandria City Marina [1]	$2 - 3	$8.00 (resident) $9.00 (non-resident)	$8.00 (resident) $9.00 (non-resident)
Anacostia Marina	*Yacht Club Rates Not Applicable*		
Belle Haven Marina	$1.00	$8.25	
Belmont Bay Marina	$1.50	$16.00	$11.25
Captain John S. Beach Marina	*Rates Not Available*		
Columbia Island Marina[1]	$1.50		$10.25 - $11.83
E-Z Cruz		$6.10 - $8.33	$5.49 - $7.50
Fort Washington Marina	$1.50	$6.80 - $10.79	$8.25 - $8.58
Hampton's Landing Marina	$1.00		$8.33 - $12.50
National Harbor	$2.25		$10.83
Occoquan Harbour Marina	$1.50		$10.00 - $14.17
Old Dominion Boat Club	$2.00	*Club Rates Not Applicable*	
Prince William Marina	*Rates Not Available*		
Tantallon Marina	*Rates Not Available*		
The Pilot House Marina			$6.25 - $12.34
Tyme n' Tyde Marina	*Dry Storage Rates Not Applicable*		
Washington Sailing Marina		$8.50 - $8.98	$7.40 - $7.88
Washington Yacht Club	*Yacht Club Rates Not Applicable*		

Source: Moffatt & Nichol database; updated where information available June 2009. [1] Base rates include electric.

Comparable Facilities

As described above, marinas within the market area cater to different boater demographics. Rural marinas and marinas that may be described as "parking lots for boats" are not considered comparable. Comparable facilities are shown in the following table and attached summary sheets in Appendix A with location, number of slips, and lease rates. Moffatt & Nichol contacted all marinas by telephone in an effort to update data on slip vacancy and verify current rates. Table 6 indicates whether or not current data was collected.

Table 6: Comparison of Regional Marine Facilities

	Name of Marina	Location	Public or Private	Total Slips	# Leased Slips	Lease Rates+	Tie Up Rates++	# Vacant Slips	Notes
1	City of Alexandria Marina	Alexandria, VA	Public	62	45	$8.00/ft (resident)	$1.00/ft		
2	Old Dominion Boat Club	Alexandria, VA	Private	53	53		$2.00/ft	0	Short Wait List
3	Belle Haven Marina	Alexandria, VA	Public	130	130	$8.25/ft	$1.00/ft	0	100% for past 15 years
4	Washington Sailing Marina	Alexandria, VA	Public	200		$7.88/ft			No response
5	Columbia Island Marina	Washington, DC	Public	380		$11.50/ft	$1.50/ft		No response
6	Gangplank Marina	Washington, DC	Public	309		$15.00/ft	$1.50/ft		No response
7	James Creek Marina	Washington, DC	Public	300	276	$8.00/ft	$1.25/ft	24	Popular marina due to floating docks
8	Washington Marina Company	Washington, DC	Public	110	99	$12.00/ft	$2.00/ft	11	90% full typical for this marina - demand for other services is off
9	National Harbor	National Harbor, MD	Public	64		$10.83/ft	$2.25/ft		No response

Source: Moffatt & Nichol; ERA AECOM

+ /ft/month

++ /ft/day

For the comparable marinas, lease rates range from $7.88 to $15.00 per foot per month for seasonal leases. Higher lease rates correspond to marinas in the District while lower rates generally correspond to marinas in Alexandria. Additionally, the variation in price reflects the difference in amenities and quality of the facilities at the marinas.

Dock Structures

Dock structures in marina design are chosen based on environmental conditions and client needs. The environmental factors that influence the dock type at the project site include tide range and wave climate and currents. Docks may be either fixed or floating structures and can be constructed of a variety of materials including wood, concrete, metal and composite materials.

Tides at the project site are on the order of 3 feet as reflected in the water levels measured at the Cameron St Dock (USGS gage 0165258890) and reported at the benchmarked tide gage located at the Police and Fire Harbor Patrol Office on the Washington Channel (NOAA gage 8594900). In areas of high tidal fluctuation, floating docks have become more prevalent as they allow a constant freeboard to be maintained between the dock and the boat. Although floating docks may be preferred given the accessibility, a site specific evaluation is required to assess loading under variety of conditions (e.g. wave energy, currents, ice) on the docks to determine cost and feasibility of implementation of a floating dock system, as compared to a fixed structure.

A variety of slips are represented in the market with fixed, floating and lift slips available both uncovered and covered. Construction materials range from wood to composite material with examples of metal and concrete docks. Although a variety of docks are present in the market, the majority of marinas are comprised of floating wood docks with double load slips. Table 7 outlines the frequency of dock type in the market with some marinas having more than one type.

Each dock material type has advantages and disadvantages. In the D.C. market, timber is the typical construction material utilized for fixed docks and wood decks on an aluminum frame for floating docks. Wood and metal are readily available and generally cost less than concrete while concrete has a longer life cycle and better durability. With the exception of a few floating docks for commercial boats, the City Marina slips consist of fixed docks with timber decking and pile supported piers; the wharf includes composite decking material.

Table 7: Dock Type Prevalence in the D.C. Market

Dock Type	
Fixed	11
Floating	19
Deck Material	
Wood	23
Concrete	2
Composite	2
Aluminum	1

3.0 Projected Market

Market drivers for each marina region are identified and the slip-taker demand generated by each driver is estimated. Typical market drivers include:

- Underserved Existing Population
- Population Growth
- Demographic Change
- Upland Development
- Transient Boaters
- Charter/Commercial

  Please refer to the RCPA memo dated November 18 2009 for the staff's assessment of regional market factors.

Under prior investigations Moffatt & Nichol evaluated population growth, increases in boating use per capita, tourism trends based on US census population numbers, boat registration data, and available tourism data in the Washington D.C. market area. The resulting analyses are based on long term trends and may not reflect short term increases or declines in demand due to episodic economic fluctuations. For this study, the data was further analyzed to develop an estimate of the sustainable number of slips for the City of Alexandria Marina over the next 10 to 15 years.

Underserved Existing Population

While population growth is expected to increase the number of vessels in an area, there are markets that have already reached a saturation point and a portion of the existing population is underserved. That is, there are boaters that seek a slip but insufficient slips are available. The underserved aspect of a market will either keep their vessel further outside of the region or will prevent a potential boater from purchasing a vessel. The extent of the underserved population may be evaluated using several methods including:

- Marina Slip Wait List - The majority of the marinas in the market historically reported wait lists for wet slips with the predominant recent requests for wet slips in the 40-foot and 50-foot range. Marinas in the downtown region historically reported wet slip waiting lists for most slip sizes. These wait lists range from 50 to 100 slips and appear to be mainly comprised of District workers seeking live-aboards or part-time residency on their boats. Although the majority of the existing slips in the market are in the range of 20-feet to 30-feet in length, there is increased demand for larger slips. The 40-foot and longer slips have waiting lists while the smaller slips in the under 40-foot range have seen a decrease in demand in the current market attributed to the economic downturn. The under 40-foot vessels are able to be kept on a trailer and launched at boat ramps. Boaters are increasingly trailering their boats to cut back on wet slip berthing costs.

- Boats Per Capita - The existing D.C. marina market rate of boats per capita is 1 boat for every 125 people. This is far less than the statewide per capita boat ownership in Virginia and Maryland which are approximately 1 boat for every 30 people. Although these numbers are vastly different, the coastal areas of Virginia and Maryland are expected to have a higher per capita boat ownership than the more metropolitan areas upriver. This vast difference could indicate that, while the D.C. market will not necessarily support a per capita boat ownership rate equal to the statewide rate of Maryland and Virginia, the per capita boat ownership is lower than expected, indicating an underserved marina market.

Analysis of these data suggests demand for an additional 70 to 100 slips in the existing market due to underserved population. Properly sized slips would be quickly absorbed into the market at market lease prices.

Population Growth

As the overall population grows, it can be assumed that the boating population will grow at a similar rate. While there are other influences, such as demographic changes in population, that affect the growth of the boating market, the number of boats per capita can be assumed constant, as long as sufficient resources remain to support this increase.

Historical population trends and future projections for the market area show an overall population increase over the period 1980-2030. Although the trend for D.C. shows a decrease in population, the surrounding counties show an increase of a greater magnitude allowing for an increase in the overall market. The overall regional growth in the market is expected to increase 12% between 2007 and 2030.

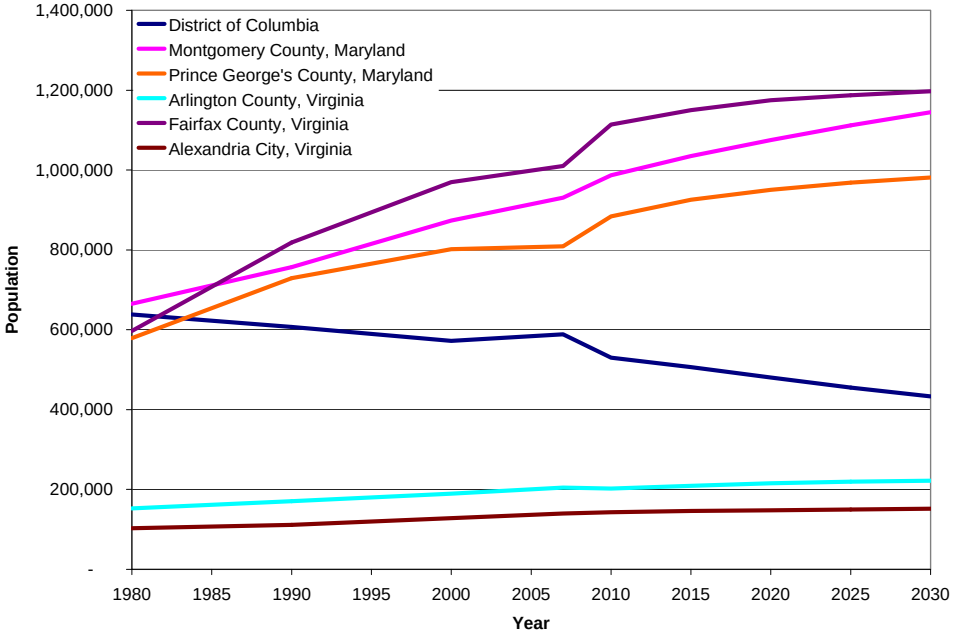

Figure 3: D.C. Market Population Growth Trends

Source: U.S. Census Bureau, Northern Virginia Regional Commission, Metropolitan Council of Governments, Maryland State Data Center

The area population expected to increase by approximately 300,000 people by 2015 and a per capita boat ownership of approximately 1 boat per 125 people, an additional 2,400 vessels are expected in the market region by 2015. According to boat registration data, over 90% of vessels in this market are trailerable; as such, approximately 200 to 250 additional wet slips will be needed to meet the demand from population growth. These slips are expected to be absorbed throughout the population growth period at prevailing market rates.

Demographic Change

According to Margery Austin Turner and Christopher Snow from the Urban Institute, Washington, D.C. is undergoing a gentrification process in many areas. This process often involves a decrease in the number of housing units available, while keeping the area income intact as people with higher income levels move into areas that previously had lower income occupants (Turner and Snow, 2001). As shown in Table 8, the household income has significantly increased in the region. While the average D.C. household income has increased at the slowest rate, the median household income is expected to increase at a greater rate as gentrification plans continue.

Table 8: D.C. Market Income Demographic Trends

Location	Number of Households		Median Household Income	
	1990	Present	1990	Present
Washington, D.C.	249,634		$40,088	$54,317
Montgomery County, MD	282,228	347,625	$54,089	$91,835
Prince George's County, MD	258,011	303,232	$42,127	$68,370
Arlington County, VA	78,745	97,100	$44,600	$91,896
Fairfax County, VA	292,345		$59,284	$105,241
Alexandria City, VA	53,280		$41,472	$80,806

Boating is a luxury expense and an increase in median household income creates an area where there is a greater possibility of disposable income being spent on this industry. This demographic shift in income levels can increase the per capita boat ownership above the current level.

A change in population age demographics can be indicative of the potential for increases or decreases in the boating market. As shown in Figure 4, the population in the market area has shown the greatest increase in the age range of 45-64 years. This age group is likely to equate to an increase in the number of vessels in the market region.

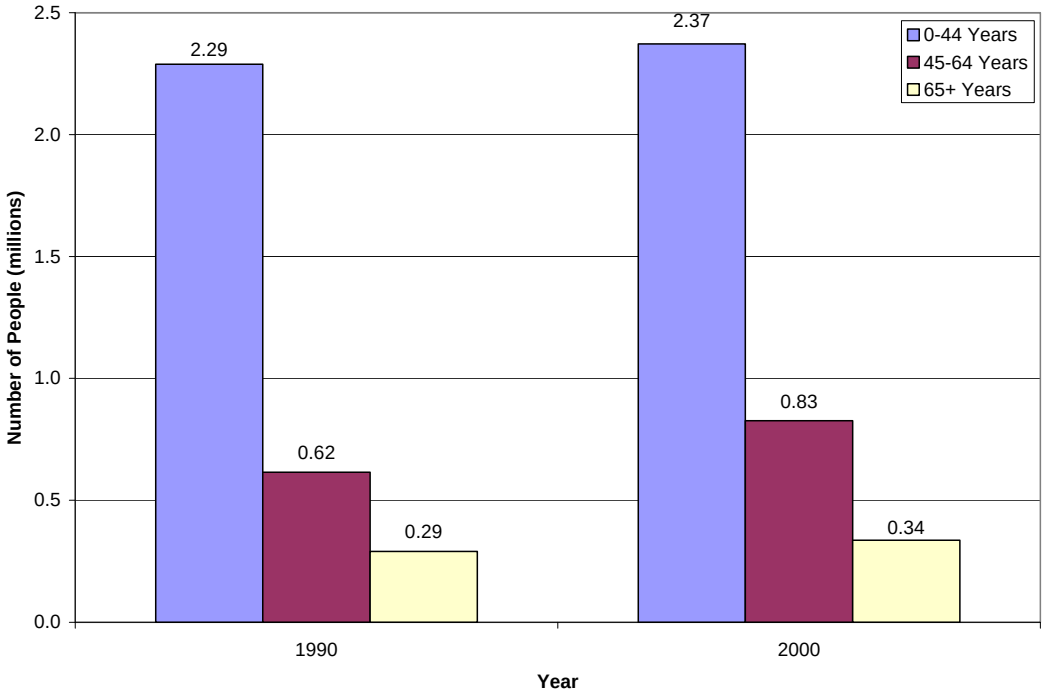

Figure 4: D.C. Market Age Demographic Trends

Source: U.S. Census Bureau

Upland Development

The type of upland development associated with a marina can attract different types of boaters to the project. Residential components of upland developments typically draw long-term boaters and absorption of slips is in line with the upland absorption. Conversely a commercial development will generally attract more transient boaters seeking a temporary stop.

Transient Boaters

Restaurants, shops and walkways provide upland amenities that transient boaters typically desire. These amenities offer an advantage over other marinas and will attract transient boaters to the marina.

However, barriers exist to out-of-market transient vessels visiting the D.C. market. The Chesapeake Bay is a day-long cruise from Washington, D.C. This is a deterrent for the transient boater that is passing through the mid-Atlantic region. A transient boater passing through a region will stop at marinas along the route that are convenient. They will not spend a day cruising to and from a marina unless it is specifically to visit that area.

"Downtown" marinas also report shortages of parking for marina patrons. Sufficient parking for marina patrons will need to be accounted for during upland development planning.

Transient boating is expected to contribute demand for 5 to 15 out-of-market boaters per day in the D.C. market and 25 to 50 in-market transient boaters during peak demand periods. Currently these boaters are accommodated in designated transient slips or temporarily vacant slips in marinas that do not specifically reserve slips for transient boaters. These slips are expected to be fully occupied during periods of peak demand and potentially unoccupied during the offseason.

Commercial/Charter

Tourism influences aspects of the commercial and charter vessel industry through tour boats, water taxis and fishing vessels, depending on the market region. Local tourism bureaus report that the majority of tourists seek out activities in the region ranging from museums to the monuments.

Many tourists travel around town utilizing public transportation and not just limiting themselves to land. Water taxi service from the Potomac Riverboat Company is available between the Alexandria City Marina, National Harbor Marina, Georgetown and Mount Vernon. These areas are popular for their historic sites, restaurants, nightlife and other activities. While the water taxi service ferries people from one location to another, it also serves as a tour boat offering a guided

tour along the way of the various monuments and historic sites. In addition to the taxi service, there are companies that operate at the various marinas that conduct similar river tours.

Summary

Analysis of the existing regional boating market in conjunction with the identified market drivers results in the following observations:

- Boating population has been historically underserved (not enough local slips for boaters).
- Regional population growth and income has supported an increase in boating growth.
- Recently completed and planned regional development of marina facilities and destination points (e.g. Diamond Teague at Nationals ballpark, National Harbor) may create an increase in transient boating and presents new opportunities and potential growth for increase an commercial boating (e.g. water taxis). Waterfront revitalization may draw more transient traffic to Alexandria.
- Long-term support for several hundred additional wet slips in the regional market.
- The boating market is expected to increase by several thousand boats. However, most of these boats will be trailerable and may not seek wet-slips.
- Market wide wet slip demand is projected to increase by several hundred slips over the next 10-15 years. New marina projects and renovations to existing marinas will compete for these slips. Expanding the Alexandria City Marina to a total of 150 to 200 slips is projected to satisfy recreational demand as well as the commercial and short term transient demand, while maintaining high occupancy levels. Expansion of the marina will allow for collection of additional revenue to fund operational and maintenance expenses.
- The market is expected to support wet slip lease rates on the order of $1.00-$2.50 per foot per day and $8-$12 per foot per month.
- Based on review of the National Marina Manufacturing Association (NNMA) (e.g. NNMA, 2008, 2009), the 35 to 50 ft boat class is growing faster than smaller boat segments.
- ADA accessibility will be an important consideration in the evaluation and planning of marina infrastructure.

4.0 Marina Size vs. Revenue

Marina viability must be assessed on a case by case basis. There is no specific number of slips that assures profitability. A marina economic analysis or pro-forma compares revenue to costs to determine potential profit or loss.

Major costs include land acquisition, infrastructure construction (seawalls, breakwaters), dock construction, and dredging. Ongoing operational costs include personnel, insurance, maintenance.

Dock construction costs for a 40-foot slip, not including land, infrastructure, or dredging, is on the order of $20,000 to $30,000 per slip (fixed or floating) including utilities.

Operation of a marina requires the following staff:

- General Manager
- Dockmaster
- Accountant/Controller
- Assistant Dockmaster
- Maintenance Staff
- Dockhands (seasonal – 1 for every 50 to 100 boats during peak season)

Depending on the size and activity level of the marina, several of the jobs may be combined to reduce staff levels. Salaries vary by region.

The primary revenue source for marinas is slip leasing. Fuel sales generate significant additional revenue, where available.

5.0 Discussion and Key Findings

Based on the preliminary research of the regional marina market the following general conclusions are drawn:

- Analysis of the existing and projected markets indicates that the long-term marina market is expected to grow.

- In the short term, consideration of temporarily reducing lease rates may allow for increased occupancy, if desired.

- Expanding the Alexandria City Marina to a total of 150 to 200 slips is projected to satisfy recreational demand as well as the commercial and short term transient demand, while maintaining high occupancy levels; this is provided improvements of facilities are made commensurate with other marinas in the market.

- Given the potential growth in increased commercial requirements and the importance of the commercial sector to the waterfront, commercial slip and mooring requirements need to be assessed and prioritized in association any recreational boating needs. Construction of additional recreational boating slips will facilitate consolidation and expansion of commercial berthing on the existing fixed docks.

- The distribution of recreational slip sizes should be centered on a 40 ft boat length. Slip layout and fairway width should be designed to allow for flexibility to accommodate larger vessels. New docks should be floating where possible to cater to recreational users.

- Planning for marina expansion will need to take into consideration consider environmental permitting and jurisdictional constraints (Moffatt & Nichol, August 27, 2009) as well as physical design parameters (e.g. sedimentation, waves, currents, ice loading, etc.).

- An independent engineering assessment of existing marina facilities and operations is recommended in conjunction with Phase 2 planning services. Specific recommendations for facilities rehabilitation and replacements would be made in conjunction with evaluation of expansion alternatives. Phased prioritization of rehabilitation and facilities improvements would be identified.

6.0 References

Marina Subcommittee, September 17 2009, Meeting Minutes.

Moffatt & Nichol, August 27, 2009. Memorandum to EDAW/AECOM regarding permitting conditions for waterfront redevelopment.

NMMA. 2008. Recreational Boating Statistical Abstract. Chicago, Illinois.

NMMA Website. 2009. http://www.nmma.org/facts/boatingstats/challenges/demo.asp

RCPA, September 2007. *City of Alexandria staff in the Marina Operations Fiscal Year 2007 Cost Center Report.*

RPCA Park Planning, June 12 2009. *Memorandum regarding Waterfront Planning & Operations Criteria and Potential Improvements.*

RPCA Park Planning, August 12 2009. Conference call with EDAW/AECOM project team.

Tobiasson, 2000. *Marinas and Small Craft Harbors*.

7.0 Definitions

Transient (guest): Boater passing through or by a place, staying 10 days or less

Short-term transient (guest): Boater passing through or by a place, staying 8 hours or less (over 8 hours becomes Transient Guest).

Leaseholders: Boaters staying in a marina for 10 or sometimes 14 days or more are normally required to complete lease documents and submit insurance binders. This elevation in status is normally taken as a risk management/mitigation tool and practice.

Wet slip: Berthing area designed with vessel mooring system for a long term stay.

APPENDIX A – SUMMARY DATA ON MARINA OPERATIONS

MARINA DATA REPORT

Market	US - Maryland - Western Shore	SubLocation	Potomac - Upper (Occoquan River to D.C.)
Marina Name	Alexandria City Marina	Web Page	http://alexandriava.gov/recreation/info/default.aspx?id=12474

Research Date	8/2008	Street	0 Cameron Street	Contact Person	
Latitude	38.805241	City, State	Alexandria, VA	Telephone	(703) 838-4265
Longitude	-77.038963	Postal Code/Country	22314 United States	Fax	

Slip Information			
Dock Style	Fixed	Busy Season	
Dock Material	Timber/Comp	Off Season	
Wet Slips		**Dry Slips**	
Wet Slips	62	Dry Slips	0
Wet Peak Occupancy		Dry Peak Occupancy	
Wet Off Occupancy		Dry Off Occupancy	
Max Slip Length	210	**Lease Rates /ft**	
Min Slip Length		Daily	
Ave Slip Length	38	Weekly	
Lease Rates /ft		Monthly (Low)	
Daily (Low)	$2.00	Monthly (High)	
Daily (High)	$4.00	Yearly (Low) /mo	
Daily Live-Aboard		Yearly (High) /mo	
Weekly (Low)		**Miscellaneous**	
Weekly (High)		Moorings	0
Weekly Live-Aboard		Mooring Rate /mo	
Monthly (Low)	$7.25	Transient Berths	20
Monthly (High)	$8.25	Boat Ramp	
Monthly Live-Aboard		Approach Depth	20
Yearly (Low) /mo	$8.00	Port Of Entry	N
Yearly (High) /mo	$9.00	Clean Marina	
Yearly Live-Aboard /m		Blue Flag	

Slip Sizes	
Under 20'	0
20'-29'	
30'-39'	
40'-49'	62
50'-59'	
60'-69'	
70'-79'	0
80'-89'	0
90'-99'	0
100'-109'	0
110'-119'	0
120'-129'	0
130'-139'	1
140'-149'	0
150'-159'	0
160'-169'	0
170'-179'	0
180'-189'	0
190'-199'	0
200'-209'	0
210'-219'	0
220'-229'	0
230'-239'	0
240'-249'	0
250'+	0

Upland Amenities	
Hotel	N
Restaurant	Y
Shopping	Y
Bar	Y
Pool	N
Laundry Facilities	N
Shower	Y
Ice	Y
Water Sports	N
Crews Quarters	N
Security - Passive	N
Security - Video	Y
Security - Guard	N

WaterSide Amenities			
Water	Y	$0.00	/gal
Pumpout	Y	$25.00	/use
Telephone			N
TV/Cable			N
Internet Access			N

Electric			
1 Ph	Y	3 Ph	N
Rates	/kwH	/Day	/Mo
30A			
50A			
100A			

Fuel			
Gas	N	High Speed	N
Diesel	N	High Speed	N

Comments

No Liveaboards, some overnight transient allowed.
Additional charge of $4 per day for 1-
30 amp electric connection, $7 per day for 1- 50 amp electric connection
In addition to the wet slips identified there are berthing areas for commercial vessels
and designated areas for temporary "tie ups"

Local Notes

Associated Events

Marina Number 0821

MARINA DATA REPORT

Market	US - Maryland - Western Shore	SubLocation	Potomac - Upper (Occoquan River to D.C.)
Marina Name	Belle Haven Marina	Web Page	www.saildc.com

Research Date	8/2008	Street	1201 Belle Haven Marina Road	Contact Person	
Latitude	38.776681	City, State	Alexandria, VA	Telephone	(703) 768-0018
Longitude	-77.048325	Postal Code/Country	22307 United States	Fax	

Slip Information

Dock Style	Fixed	Busy Season	
Dock Material	Timber	Off Season	
Wet Slips		**Dry Slips**	
Wet Slips	130	Dry Slips	0
Wet Peak Occupancy	100%	Dry Peak Occupancy	
Wet Off Occupancy		Dry Off Occupancy	
Max Slip Length	50	**Lease Rates /ft**	
Min Slip Length		Daily	
Ave Slip Length	25	Weekly	
Lease Rates /ft		Monthly (Low)	$6.00
Daily (Low)	$1.00	Monthly (High)	$6.00
Daily (High)	$1.00	Yearly (Low) /mo	$6.00
Daily Live-Aboard		Yearly (High) /mo	$6.00
Weekly (Low)		**Miscellaneous**	
Weekly (High)		Moorings	25
Weekly Live-Aboard		Mooring Rate /mo	
Monthly (Low)	$8.25	Transient Berths	0
Monthly (High)	$8.25	Boat Ramp	Y
Monthly Live-Aboard		Approach Depth	
Yearly (Low) /mo	$8.25	Port Of Entry	N
Yearly (High) /mo	$8.25	Clean Marina	
Yearly Live-Aboard /m		Blue Flag	

Slip Sizes

Under 20'	0
20'-29'	20
30'-39'	52
40'-49'	52
50'-59'	6
60'-69'	0
70'-79'	0
80'-89'	0
90'-99'	0
100'-109'	0
110'-119'	0
120'-129'	0
130'-139'	0
140'-149'	0
150'-159'	0
160'-169'	0
170'-179'	0
180'-189'	0
190'-199'	0
200'-209'	0
210'-219'	0
220'-229'	0
230'-239'	0
240'-249'	0
250'+	0

Upland Amenities

Hotel	N
Restaurant	N
Shopping	N
Bar	N
Pool	N
Laundry Facilities	N
Shower	N
Ice	Y
Water Sports	Y
Crews Quarters	N
Security - Passive	N
Security - Video	N
Security - Guard	N

WaterSide Amenities

Water	Y	$0.00	/gal
Pumpout	Y	$5.00	/use
Telephone			N
TV/Cable			N
Internet Access			N

Electric

1 Ph	N	3 Ph	N
Rates	/kwH	/Day	/Mo
30A			
50A			
100A			

Fuel

Gas	N	High Speed	N
Diesel	N	High Speed	N

Comments

extensive wait list according to website
100% full for past 15 years

Local Notes

Associated Events

Marina Number 0819

MARINA DATA REPORT

Market	US - Maryland - Western Shore	SubLocation	Potomac - Upper (Occoquan River to D.C.)
Marina Name	Columbia Island Marina	Web Page	www.columbiaisland.com

Research Date	8/2008	Street	1 George Washington Memorial Parkway	Contact Person	
Latitude	38.874894	City, State	Washington, DC	Telephone	(202) 347-0173
Longitude	-77.049058	Postal Code/Country	20024 United States	Fax	

Slip Information			
Dock Style	Floating	Busy Season	
Dock Material	Timber	Off Season	
Wet Slips		**Dry Slips**	
Wet Slips	380	Dry Slips	
Wet Peak Occupancy		Dry Peak Occupancy	
Wet Off Occupancy		Dry Off Occupancy	
Max Slip Length	50	**Lease Rates /ft**	
Min Slip Length	20	Daily	
Ave Slip Length		Weekly	
Lease Rates /ft		Monthly (Low)	
Daily (Low)	$1.50	Monthly (High)	
Daily (High)	$1.50	Yearly (Low) /mo	
Daily Live-Aboard		Yearly (High) /mo	
Weekly (Low)		**Miscellaneous**	
Weekly (High)		Moorings	
Weekly Live-Aboard		Mooring Rate /mo	
Monthly (Low)	$10.25	Transient Berths	0
Monthly (High)	$11.83	Boat Ramp	Y
Monthly Live-Aboard		Approach Depth	
Yearly (Low) /mo	$10.25	Port Of Entry	N
Yearly (High) /mo	$11.83	Clean Marina	
Yearly Live-Aboard /m		Blue Flag	

Slip Sizes	
Under 20'	0
20'-29'	220
30'-39'	123
40'-49'	14
50'-59'	23
60'-69'	0
70'-79'	0
80'-89'	0
90'-99'	0
100'-109'	0
110'-119'	0
120'-129'	0
130'-139'	0
140'-149'	0
150'-159'	0
160'-169'	0
170'-179'	0
180'-189'	0
190'-199'	0
200'-209'	0
210'-219'	0
220'-229'	0
230'-239'	0
240'-249'	0
250'+	0

Upland Amenities			
Hotel			N
Restaurant			Y
Shopping			N
Bar			N
Pool			N
Laundry Facilities			N
Shower			Y
Ice			N
Water Sports			N
Crews Quarters			N
Security - Passive			
Security - Video			
Security - Guard			
WaterSide Amenities			
Water	Y	$0.00	/gal
Pumpout	Y	$5.00	/use
Telephone			N
TV/Cable			N
Internet Access			N
Electric			
1 Ph	Y	3 Ph	

Rates	/kwH	/Day	/Mo
30A		$5.00	
50A		$7.00	
100A			

Fuel			
Gas	Y	High Speed	N
Diesel	N	High Speed	N

Comments

Seasonal slips are for vessels 20' and under and have limited outlets and water hose availability.

Local Notes

Associated Events

Marina Number 0807

MARINA DATA REPORT

Market	US - Maryland - Western Shore	SubLocation	Potomac - Upper (Occoquan River to D.C.)
Marina Name	Gangplank Marina	Web Page	http://www.gangplank.com/

Research Date	8/2008	Street	600 Water Street SW	Contact Person	
Latitude	38.876708	City, State	Washington, DC	Telephone	(202) 554-5000
Longitude	-77.022102	Postal Code/Country	20024 United States	Fax	(202) 554-2740

Slip Information

Dock Style	Floating	Busy Season	
Dock Material	Timber	Off Season	
Wet Slips		**Dry Slips**	
Wet Slips	309	Dry Slips	0
Wet Peak Occupancy		Dry Peak Occupancy	
Wet Off Occupancy		Dry Off Occupancy	
Max Slip Length	125	**Lease Rates /ft**	
Min Slip Length		Daily	
Ave Slip Length	40	Weekly	
Lease Rates /ft		Monthly (Low)	
Daily (Low)		Monthly (High)	
Daily (High)	$1.50	Yearly (Low) /mo	
Daily Live-Aboard		Yearly (High) /mo	
Weekly (Low)		**Miscellaneous**	
Weekly (High)	$8.00	Moorings	0
Weekly Live-Aboard		Mooring Rate /mo	
Monthly (Low)	$13.60	Transient Berths	0
Monthly (High)	$17.00	Boat Ramp	N
Monthly Live-Aboard	$150.00	Approach Depth	
Yearly (Low) /mo	$11.00	Port Of Entry	N
Yearly (High) /mo	$15.00	Clean Marina	
Yearly Live-Aboard /m	$150.00	Blue Flag	

Slip Sizes

Under 20'	0
20'-29'	50
30'-39'	78
40'-49'	120
50'-59'	25
60'-69'	25
70'-79'	0
80'-89'	7
90'-99'	1
100'-109'	2
110'-119'	0
120'-129'	1
130'-139'	0
140'-149'	0
150'-159'	0
160'-169'	0
170'-179'	0
180'-189'	0
190'-199'	0
200'-209'	0
210'-219'	0
220'-229'	0
230'-239'	0
240'-249'	0
250'+	0

Upland Amenities

Hotel	N
Restaurant	N
Shopping	N
Bar	N
Pool	N
Laundry Facilities	Y
Shower	Y
Ice	N
Water Sports	N
Crews Quarters	N
Security - Passive	Y
Security - Video	N
Security - Guard	Y

WaterSide Amenities

Water	Y	$0.00	/gal
Pumpout	Y	$12.00	/use
Telephone			N
TV/Cable			Y
Internet Access			N

Electric

1 Ph	Y	3 Ph	
Rates	/kwH	/Day	/Mo
30A		$5.00	
50A		$10.00	
100A			

Fuel

Gas	N	High Speed	N
Diesel	N	High Speed	N

Comments

Approximately 100 slips have liveaboards and no new applications being taken only transfers allowed. City-owned marina with a private management company. Bubblers for the dock during the winter. Most occupants are recreational or government contractors

Local Notes

Associated Events

Marina Number 0808

MARINA DATA REPORT

Market	US - Maryland - Western Shore	SubLocation	Potomac - Upper (Occoquan River to D.C.)
Marina Name	James Creek Marina	Web Page	www.jamescreek.com

Research Date	8/2008	Street	200 V St SW	Contact Person	
Latitude	38.864006	City, State	Washington, DC	Telephone	(202) 554-8844
Longitude	-77.014489	Postal Code/Country	20024 United States	Fax	

Slip Information			
Dock Style	Floating	Busy Season	
Dock Material	Timber	Off Season	
Wet Slips		**Dry Slips**	
Wet Slips	300	Dry Slips	0
Wet Peak Occupancy		Dry Peak Occupancy	
Wet Off Occupancy		Dry Off Occupancy	
Max Slip Length	87	**Lease Rates /ft**	
Min Slip Length	26	Daily	
Ave Slip Length		Weekly	
Lease Rates /ft		Monthly (Low)	
Daily (Low)		Monthly (High)	
Daily (High)	$1.25	Yearly (Low) /mo	
Daily Live-Aboard		Yearly (High) /mo	
Weekly (Low)		**Miscellaneous**	
Weekly (High)		Moorings	
Weekly Live-Aboard		Mooring Rate /mo	
Monthly (Low)	$9.00	Transient Berths	0
Monthly (High)	$10.25	Boat Ramp	
Monthly Live-Aboard		Approach Depth	
Yearly (Low) /mo	$8.00	Port Of Entry	N
Yearly (High) /mo	$8.00	Clean Marina	Y
Yearly Live-Aboard /m		Blue Flag	

Slip Sizes	
Under 20'	0
20'-29'	150
30'-39'	110
40'-49'	40
50'-59'	0
60'-69'	0
70'-79'	0
80'-89'	0
90'-99'	0
100'-109'	0
110'-119'	0
120'-129'	0
130'-139'	0
140'-149'	0
150'-159'	0
160'-169'	0
170'-179'	0
180'-189'	0
190'-199'	0
200'-209'	0
210'-219'	0
220'-229'	0
230'-239'	0
240'-249'	0
250'+	0

Upland Amenities	
Hotel	N
Restaurant	N
Shopping	N
Bar	N
Pool	N
Laundry Facilities	N
Shower	Y
Ice	Y
Water Sports	N
Crews Quarters	N
Security - Passive	Y
Security - Video	N
Security - Guard	N

WaterSide Amenities			
Water	Y		/gal
Pumpout	Y		/use
Telephone			N
TV/Cable			N
Internet Access			N

Electric			
1 Ph	Y	3 Ph	
Rates	/kwH	/Day	/Mo
30A		$3.00	$60.00
50A		$5.00	$60.00
100A			

Fuel			
Gas	Y	High Speed	N
Diesel	Y	High Speed	N

Comments

DC Clean Marina. National Park Service owned, privately managed. Mostly 40-45 foot LOA. Approx. $0.60/gal markup on fuel. Electric ranges by boat size from $10-$70 with an additional $6 per month surcharge.

Local Notes

Associated Events

Marina Number 0811

MARINA DATA REPORT

Market	US - Maryland - Western Shore	SubLocation	Potomac - Upper (Occoquan River to D.C.)
Marina Name	National Harbor	Web Page	http://www.nationalharbor.com/

Research Date	8/2008	Street	163 Waterfront Street	Contact Person	
Latitude	38.782513	City, State	National Harbor, MD	Telephone	(301) 749-1582
Longitude	-77.018326	Postal Code/Country	20745 United States	Fax	

Slip Information			
Dock Style	Fixed & Floating	Busy Season	
Dock Material	Conc/ Timb	Off Season	
Wet Slips		**Dry Slips**	
Wet Slips	64	Dry Slips	0
Wet Peak Occupancy		Dry Peak Occupancy	
Wet Off Occupancy		Dry Off Occupancy	
Max Slip Length		**Lease Rates /ft**	
Min Slip Length		Daily	
Ave Slip Length		Weekly	
Lease Rates /ft		Monthly (Low)	
Daily (Low)		Monthly (High)	
Daily (High)	$2.25	Yearly (Low) /mo	
Daily Live-Aboard		Yearly (High) /mo	
Weekly (Low)		**Miscellaneous**	
Weekly (High)		Moorings	
Weekly Live-Aboard		Mooring Rate /mo	
Monthly (Low)		Transient Berths	0
Monthly (High)		Boat Ramp	
Monthly Live-Aboard		Approach Depth	
Yearly (Low) /mo	$10.83	Port Of Entry	N
Yearly (High) /mo	$10.83	Clean Marina	
Yearly Live-Aboard /m		Blue Flag	

Slip Sizes	
Under 20'	0
20'-29'	0
30'-39'	0
40'-49'	32
50'-59'	0
60'-69'	32
70'-79'	0
80'-89'	0
90'-99'	0
100'-109'	0
110'-119'	0
120'-129'	0
130'-139'	0
140'-149'	0
150'-159'	0
160'-169'	0
170'-179'	0
180'-189'	0
190'-199'	0
200'-209'	0
210'-219'	0
220'-229'	0
230'-239'	0
240'-249'	0
250'+	0

Upland Amenities			
Hotel			Y
Restaurant			Y
Shopping			Y
Bar			Y
Pool			Y
Laundry Facilities			Y
Shower			Y
Ice			Y
Water Sports			N
Crews Quarters			N
Security - Passive			Y
Security - Video			Y
Security - Guard			Y
WaterSide Amenities			
Water	Y	$0.00	/gal
Pumpout	Y		/use
Telephone			Y
TV/Cable			Y
Internet Access			Y
Electric			
1 Ph	Y	3 Ph	N
Rates	/kwH	/Day	/Mo
30A		$5.00	
50A		$10.00	
100A			
Fuel			
Gas	Y	High Speed	N
Diesel	Y	High Speed	N

Comments

All inclusive marina with upland restaurants and lodging. Water taxi to Alexandria. Larger slips but smaller vessels occupy the slips.

Local Notes

Associated Events

Marina Number 0820

MARINA DATA REPORT

Market	US - Maryland - Western Shore	SubLocation	Potomac - Upper (Occoquan River to D.C.)
Marina Name	Old Dominion Boat Club	Web Page	www.olddominionboatclub.com

Research Date	10/2008	Street	One King St	Contact Person	
Latitude	38.804722	City, State	Alexandria, VA	Telephone	(703) 836-1900
Longitude	-77.046667	Postal Code/Country	22314 United States	Fax	

Slip Information

Dock Style	Fixed	Busy Season	
Dock Material	Timber	Off Season	

Wet Slips		Dry Slips	
Wet Slips	53	Dry Slips	0
Wet Peak Occupancy		Dry Peak Occupancy	
Wet Off Occupancy		Dry Off Occupancy	
Max Slip Length		**Lease Rates /ft**	
Min Slip Length		Daily	
Ave Slip Length		Weekly	
Lease Rates /ft		Monthly (Low)	
Daily (Low)	$0.50	Monthly (High)	
Daily (High)	$2.00	Yearly (Low) /mo	
Daily Live-Aboard		Yearly (High) /mo	
Weekly (Low)		**Miscellaneous**	
Weekly (High)		Moorings	0
Weekly Live-Aboard		Mooring Rate /mo	
Monthly (Low)		Transient Berths	0
Monthly (High)		Boat Ramp	Y
Monthly Live-Aboard		Approach Depth	
Yearly (Low) /mo		Port Of Entry	N
Yearly (High) /mo		Clean Marina	
Yearly Live-Aboard /m		Blue Flag	

Slip Sizes

Under 20'	0
20'-29'	34
30'-39'	15
40'-49'	4
50'-59'	0
60'-69'	0
70'-79'	0
80'-89'	0
90'-99'	0
100'-109'	0
110'-119'	0
120'-129'	0
130'-139'	0
140'-149'	0
150'-159'	0
160'-169'	0
170'-179'	0
180'-189'	0
190'-199'	0
200'-209'	0
210'-219'	0
220'-229'	0
230'-239'	0
240'-249'	0
250'+	0

Upland Amenities

Hotel	N
Restaurant	Y
Shopping	N
Bar	Y
Pool	N
Laundry Facilities	Y
Shower	Y
Ice	Y
Water Sports	N
Crews Quarters	N
Security - Passive	Y
Security - Video	N
Security - Guard	N

WaterSide Amenities

Water	Y	$0.00	/gal
Pumpout	Y		/use
Telephone			
TV/Cable			
Internet Access			

Electric

1 Ph	Y	3 Ph	N
Rates	/kwH	/Day	/Mo
30A			
50A			
100A			

Fuel

Gas	N	High Speed	N
Diesel	N	High Speed	N

Comments

Membership required, some transients allowed

Local Notes

Associated Events

Marina Number 0823

MARINA DATA REPORT

Market	US - Maryland - Western Shore	SubLocation	Potomac - Upper (Occoquan River to D.C.)
Marina Name	Washington Marina Company	Web Page	www.washingtonmarina.com

Research Date	8/2008	Street	1300 Maine Ave SW	Contact Person	
Latitude	38.882219	City, State	Washington, DC	Telephone	(202) 554-0222
Longitude	-77.029793	Postal Code/Country	20024 United States	Fax	

Slip Information

Dock Style	Floating	Busy Season	
Dock Material	Composite	Off Season	
Wet Slips		**Dry Slips**	
Wet Slips	110	Dry Slips	0
Wet Peak Occupancy		Dry Peak Occupancy	
Wet Off Occupancy		Dry Off Occupancy	
Max Slip Length	100	**Lease Rates /ft**	
Min Slip Length	20	Daily	
Ave Slip Length	30	Weekly	
Lease Rates /ft		Monthly (Low)	
Daily (Low)	$2.00	Monthly (High)	
Daily (High)	$2.00	Yearly (Low) /mo	
Daily Live-Aboard		Yearly (High) /mo	
Weekly (Low)		**Miscellaneous**	
Weekly (High)		Moorings	0
Weekly Live-Aboard		Mooring Rate /mo	
Monthly (Low)	$9.00	Transient Berths	0
Monthly (High)	$12.00	Boat Ramp	
Monthly Live-Aboard		Approach Depth	
Yearly (Low) /mo	$9.00	Port Of Entry	N
Yearly (High) /mo	$12.00	Clean Marina	
Yearly Live-Aboard /m		Blue Flag	

Slip Sizes

Under 20'	0
20'-29'	86
30'-39'	0
40'-49'	14
50'-59'	1
60'-69'	4
70'-79'	3
80'-89'	0
90'-99'	0
100'-109'	0
110'-119'	2
120'-129'	0
130'-139'	0
140'-149'	0
150'-159'	0
160'-169'	0
170'-179'	0
180'-189'	0
190'-199'	0
200'-209'	0
210'-219'	0
220'-229'	0
230'-239'	0
240'-249'	0
250'+	0

Upland Amenities

Hotel	N
Restaurant	N
Shopping	N
Bar	N
Pool	N
Laundry Facilities	N
Shower	N
Ice	N
Water Sports	N
Crews Quarters	N
Security - Passive	Y
Security - Video	N
Security - Guard	N

WaterSide Amenities

Water	Y		/gal
Pumpout	Y		/use
Telephone			N
TV/Cable			N
Internet Access			N

Electric

1 Ph	Y	3 Ph	
Rates	/kwH	/Day	/Mo
30A			
50A			
100A			

Fuel

Gas	N	High Speed	N
Diesel	N	High Speed	N

Comments

Marina created to fulfill dictate by FDR for a first-class marina in DC. Parking is limited. Slips available the past 2 years in the 20-foot range with a waiting list for 30-foot and longer. Most slip holders use the boat for entertaining after work an

Local Notes

Associated Events

Marina Number 0810

MARINA DATA REPORT

Market	US - Maryland - Western Shore	SubLocation	Potomac - Upper (Occoquan River to D.C.)
Marina Name	Washington Sailing Marina	Web Page	www.washingtonsailingmarina.com

Research Date	8/2008	Street	1 Marina Dr	Contact Person	
Latitude	38.832887	City, State	Alexandria, VA	Telephone	(703) 548-9027
Longitude	-77.042364	Postal Code/Country	22314 United States	Fax	

Slip Information			
Dock Style	Floating	Busy Season	
Dock Material	Timber	Off Season	
Wet Slips		**Dry Slips**	
Wet Slips	200	Dry Slips	0
Wet Peak Occupancy		Dry Peak Occupancy	
Wet Off Occupancy		Dry Off Occupancy	
Max Slip Length	35	**Lease Rates /ft**	
Min Slip Length		Daily	
Ave Slip Length	28	Weekly	
Lease Rates /ft		Monthly (Low)	
Daily (Low)		Monthly (High)	$5.15
Daily (High)		Yearly (Low) /mo	
Daily Live-Aboard		Yearly (High) /mo	$4.68
Weekly (Low)		**Miscellaneous**	
Weekly (High)		Moorings	0
Weekly Live-Aboard		Mooring Rate /mo	
Monthly (Low)	$8.50	Transient Berths	0
Monthly (High)	$8.98	Boat Ramp	
Monthly Live-Aboard		Approach Depth	
Yearly (Low) /mo	$7.40	Port Of Entry	N
Yearly (High) /mo	$7.88	Clean Marina	
Yearly Live-Aboard /m		Blue Flag	

Slip Sizes	
Under 20'	0
20'-29'	140
30'-39'	60
40'-49'	0
50'-59'	0
60'-69'	0
70'-79'	0
80'-89'	0
90'-99'	0
100'-109'	0
110'-119'	0
120'-129'	0
130'-139'	0
140'-149'	0
150'-159'	0
160'-169'	0
170'-179'	0
180'-189'	0
190'-199'	0
200'-209'	0
210'-219'	0
220'-229'	0
230'-239'	0
240'-249'	0
250'+	0

Upland Amenities	
Hotel	N
Restaurant	Y
Shopping	N
Bar	N
Pool	N
Laundry Facilities	N
Shower	Y
Ice	N
Water Sports	N
Crews Quarters	N
Security - Passive	Y
Security - Video	N
Security - Guard	Y

WaterSide Amenities			
Water	Y	$0.00	/gal
Pumpout	Y		/use
Telephone			N
TV/Cable			N
Internet Access			N

Electric			
1 Ph	Y	3 Ph	
Rates	/kwH	/Day	/Mo
30A	$0.00		
50A			
100A			

Fuel			
Gas	N	High Speed	N
Diesel	N	High Speed	N

Comments

No Liveaboards.

Local Notes

Associated Events

Marina Number 0822