Prepared by

THOMAS J. MURRAY & ASSOCIATES, INC.

September 25, 2014

for

GIGNAC & ASSOCIATES, LLC

On behalf of

THE CITY OF PORT ARANSAS, TEXAS

Assumptions and Limiting Conditions

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INTRODUCTION

This study has been completed on behalf of the City of Port Aransas, Texas. The analysis concerns itself specifically with the proposed development of "Charlies Pasture" the City's 67 acre undeveloped potential marina site, and the City's existing 25 acre Dennis Dyer Municipal Harbor.

The main objectives of the study are to:

- 1. Complete an analysis of comparable and competitive marinas.
- 2. Assess the potential market demand for additional marina capacity.

Estimates of market demand for expanded berthing are reached by completing the following tasks:

Reviewing published databases, recently published industry studies, trade literature, and business intelligence.

Extensive interviewing in the region associated with this study.

Evaluation of Port Aransas Marina Market Potential

Port Aransas is a coastal city in Nueces County, Texas, and is located between Corpus Christi Bay and the Gulf of Mexico. According to the United State Census Bureau, the city has a total area of 12.1 square miles, of which 8.8 square miles of it is land and 3.3 square miles of it is water.

Port Aransas is about 30 minutes from downtown Corpus Christi, three hours from San Antonio, and four hours from both Houston and Austin.

The Port Aransas region is an acknowledged gateway to marine recreation-based tourism. Beaches and sport fishing are the leading tourist attractions.

Port Aransas's prime Gulf Coast position is a major location advantage, affording a singular opportunity to fish and recreate in the Gulf of Mexico. As seen below, its proximity to major metropolitan areas is a basis for strong demand for water access to marine resource based recreation.

Port Aransas Proximity to Major Metropolitan Areas & Nearby Cities	Distance-Miles
Corpus Christi	39
San Antonio	178
Houston	210
Austin	252
Dallas	358
Aransas Pass	6.9
Ingleside	9.9
Rockport	14.2

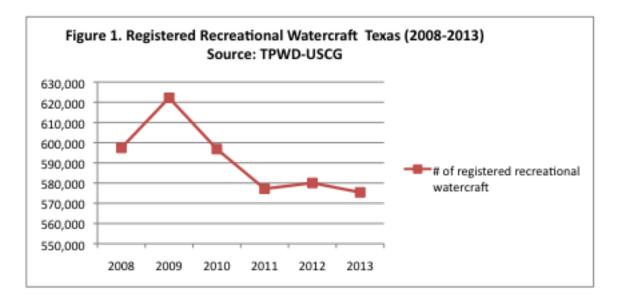
The population of these metropolitan areas has grown significantly (22.1%) during the past 10 years (1, 2).

Texas Recreational Boating Market Situation

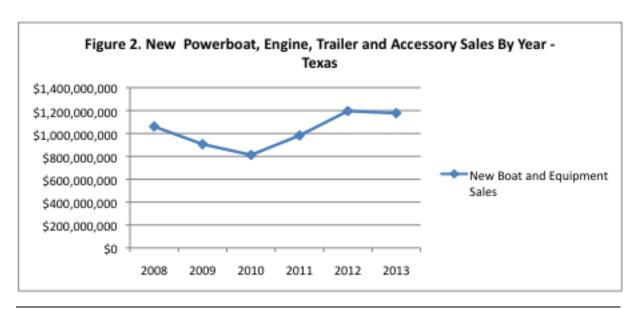
In Texas, as throughout the Nation, the recreational boating and fishing industry has experienced cyclical expansions and contractions in recent history. Boating and fishing are complementary outdoor activities, and trends and participation in either reflect upon the other.

Notably in Texas, while the number of recreational saltwater anglers has stayed about the same since 1996, the general population of Texas has increased during this time; indicating the per

capita percentage of Texans who fish has declined.¹ A related trend shows (Figure 1) that the number of Texas State registered recreational watercraft has declined substantially for the past 5 years despite an increasing population.



According to the National Marine Manufacturers Association (NMMA), in 2013 Texas ranked second nationally in total boating expenditures (Figure 2). While this represents a decline of 1.2% from the prior year, it is still nearly 30% above the 2009 boating expenditure level. A drop in registered boats between 2009 and 2011 was to some extent due to the reduced lake levels according to marina industry and related trade. The lake level declines were brought on by the worst one-year drought documented. It is not clear how this impacted the increased demand for marina facilities along the coastal zone not impacted by low water, but offering competitive facilities.



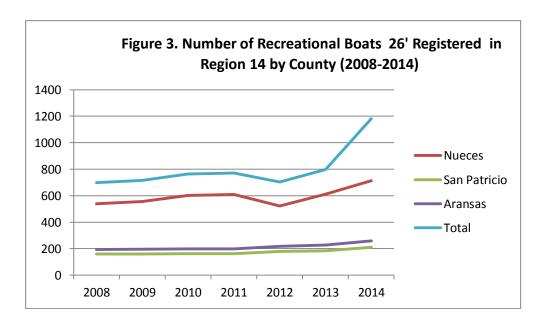
The increasing demand for water access in the study area is derived by the continued growth in tourism in the region. For example, between 2012 and 2013, Port Aransas experienced increases of 12.7% in hotel/motel tax revenues, 14.2% in sales tax collected, 3.2% in ferry passenger counts, and 11.1% increase in City Harbor income. Inherent in this growth, was also an increasing demand for recreational boating, fishing, and general water access.

Nearly 1 in 5 tourists (22.5%) identified a boating activity as the primary reason for visiting Port Aransas. Further, visitors identified additional watercraft related activities which they would like to see added to Port Aransas such as jet skiing, kayaking and paddle boarding. All such activities will add demand to existing water access infrastructure.

The demographics of tourists visiting Port Aransas mirror the strongest market segment for recreational boating and fishing. According to tourist survey data collected by the Port Aransas Chamber of Commerce (1), tourists visiting Port Aransas are relatively well educated with approximately two out of three individuals having at least an undergraduate degree. Over 40% of the visitors live in a household that earns at least \$100,000 per year. Households making less than \$50,000 comprised the smallest group at approximately 15%. The average household income fell in the range of \$75,000-99,999, slightly higher than the average household income (\$72,672) for visitors to the Corpus Christi MSA (which includes Port Aransas).

The vast majority of these tourists (80.6%) come from within Texas, primarily from San Antonio (22.4%); Austin (18.3%), Dallas-Fort Worth (15.9%) and Houston (15.6%), an estimated 5.5% of visitors are from the Corpus Christi area. The top activities were being on the beach, fishing (various forms), dining out, attending festival/special events, and shopping. Notably 16.9 % of respondents took a guided fishing trip (either small or charter boat) 14.3 sailed or boated (non-fishing) and 13.4 % fished from a non-guided boat. 4.3% of tourists participated in a fishing tournament (2).

How is the general increasing trend in boating related spending to be explained in the context of a shrinking recreational fleet? Within those numbers, there was an opposite trend in the registration of larger watercraft statewide. Figure 3 illustrates the Corpus Christi/Port Aransas region. This increase within the region has generated a shortage of slips for the growing number of offshore fishing and cruising boats in excess of 30-40 feet



Basis for Projected Demand

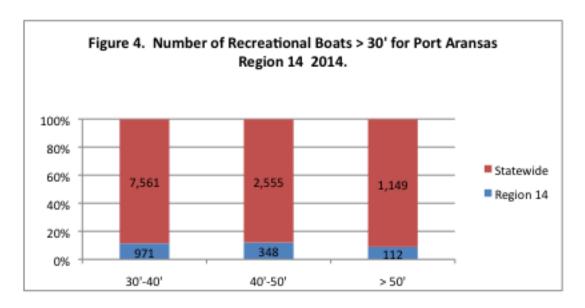
This positive trend in larger boat activity in the Port Aransas region reflected in *Figures 3 and 4* is particularly important in considering any proposed marina expansion, as most of the non-trailerable transient vessels will require dockage and related services.²

Port Aransas' strategic location places it at the center of the region's bay and offshore recreational fishing activity. In addition to the larger state registered recreational boats, there are over 10,000 federally documented recreational boats in Texas.³ Those vessels, typically measuring in excess of 34' in length, are in excess of 5 net tons displacement; the largest size class in the market area (16).

If considering marina expansion in the region, a marketing focus upon larger recreational fishing boats would draw upon this significant and currently underserved existing pool of vessels. An expanded or newly developed marina may have a unique opportunity to differentiate itself from competitors within the region principally by virtue of a greater number of larger slip sizes available. Any proposed expansion should be consistent with the overall trend in marinas nationwide, e.g. adapting to larger slip capabilities and dry stack storage to accommodate the growing size of sport fishing and cruising vessels. Dry stack storage complexes are now accommodating vessels up to the 30'-40' range.

² The Texas Parks and Wildlife boating registration data is based upon regions. Region 14 comprises Nueces, San Patricio and Aransas Counties. Aransas data was only available for 2014.

³ Boats of 5 net tons or greater in displacement are documented via the U.S. Coast Guard Documentation System. 10,708 documented recreational vessels are reported as having Texas ownership addressed. This listing provides a supplementary database for conducting research such as this. The database from the Coast Guard Office of Information Services was obtained and evaluated in conjunction with the marina surveys. (14). In general documented vessels need not obtain state registration so little duplication between the two databases exists.



Storage/Occupancy

Industry sees the shift to larger slip capabilities as its future. As one marina operator indicated, by expanding the size of berths available, if needed, they could continue to be able to accommodate smaller boats in the larger slips, but current configurations limit the dockage available for increasingly larger fleet of offshore fishing and cruising craft active in the region.

The current occupancy profile at competitive marinas is reflected in *Table 1* below. In addition to the number of wet and dry (stack) slips, the overall annual occupancy at the time of this report is documented. Also the logistical situation of each marina is represented in the estimated distances to the offshore water access, or the end of the Aransas Pass Jetty. In this case the jetty system ends at the demarcation line between inshore and offshore waters.⁴

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⁴ The distance is reported in nautical miles and is computed using N.O.A.A. nautical charts, Google Mapping and "ArcView" GIS software.

Table 1. Regional Marina Capacity, Occupancy and Distance to Jetty						
Marina	Location	Total Wet Slips	Total Dry Slips	Overall Occupancy	Distance to the Jetty (nm)	
Corpus Christi City Marina	Corpus Christi	600		78%	20.7	
City of Port Aransas Municipal Harbor Marina	Port Aransas	275		96% ⁵	2.1	
Island Mooring Marina	Port Aransas	300		78%	6.3	
Cove Harbor Marina	Rockport	173	412	90%	11.7	
Key Allegro Marina	Rockport	157		86%	15	
Redfish Bay Boat House	Aransas Pass	20	250	70% ⁶	7.8	
San Patricio Nav. Dist.	Aransas pass	158		80%	8.2	
Aransas Co. Nav. Dist.	Rockport	276		85%	13.5	

Rate Structures

Comparisons among marinas are complicated by rate structures that are based upon different size classes used by marinas to estimate the cost per foot to dock. In addition to the common offering of daily berthing rates, individual marinas increasingly offer monthly, six month and annual rates at a relative discount to the daily rates.

In order to normalize these rates for the sake of simple comparison, respective monthly rates for specific length vessels used in *Table 2* to evaluate relative berthing costs. While clearly there are differences in location and access among the various Port Aransas facilities, comparing the other regional marinas essentially represents the most complete snapshot of available slips in the region.

 $^{^{\}it 5}$ The City reports 227 permanent slips included in the total with 48 non-permanent slips.

 $^{^{6}}$ Redfish Bay reports 90% occupancy in the dry stack storage.

	Table 2. Monthly In-Water Slip Rates by Boat Length at Port Aransas								
	Region Marinas 2014								
Boat	Distance							San	
Length	to Jetty							Patricio	
Length		Corpus	Port					Co.	Aransas
		Christi	Aransas	Island	Cove	Key	Redfish	Nav.	Co. Nav.
		City	City	Moorings	Harbor	Allegro	Bay ⁷	District	District
30'			\$244	\$289	\$240	\$235	N/A	\$120	\$210
40'		\$284	\$325	\$361	\$300	\$270	N/A	\$138	\$260
50'		\$338	\$407	\$540	\$375	\$345	N/A	\$154	\$310
60'		\$432	\$488	\$600	\$520	\$385	N/A	\$488	\$360

SUMMARY OF FINDINGS

Competition

Expansion of marina capacity in Port Aransas should be evaluated in the context of regional competition. Fieldwork documents the recent increase in marina slips and dry stack capacity in the region, particularly in Aransas Pass (Conn Brown Harbor) and Rockport. There is additional interest in further marina development in the Conn Brown Harbor for both in-water and increasingly popular dry stack storage (5). Additionally, the planned development of a large recreational boat marina on "Packery Channel" is a likely competitive risk to both existing marinas, and any other new developments targeting that market (12). It remains to be seen exactly what type of marina "Packery Channel" will present. Whether it is primarily residential oriented vs. a full service marina open to the public boat owners, will have significant implications for Port Aransas and the region. The fieldwork completed here documents the concerns of existing marina and dock owners in the Port Aransas region regarding the competitive locational advantage of Packery Channel to boat owners in Corpus Christi in particular.

Dry Stack Storage

The attributes of adding dry storage stacks are increasingly recognized and accepted at marinas as an alternative to increasing in-water berths. The rationale is that it is generally less expensive and perhaps more environmentally sensitive to add racks and move smaller boats into them. Thus making slip room available for larger boats that cannot fit into racks, and reducing the need for permitting the expansion of the water surface area of the marina. Such development has potential for Port Aransas.

 $^{^{7}}$ Redfish Bay has no monthly rented slips --only 20 slips all for transient boats.

Fieldwork completed in visiting dry stack marinas in Florida, Virginia and Texas suggest that the actual cost to construct is quite variable. For the sake of example, one dry stack owner/developer estimates a cost per slip (boat) at \$12,500. This would include a three stack high capability for 136 boats per 156' wide x 310' building entailing 40' eaves, 45' peak, 20 bays 30' wide x 36' deep. In addition two 20,000 pound fork lifts would be required at approximately \$275,000 each. As well, additional floating piers, parking lot, water supply and marina office. Overall this would represent approximately a \$3.0 million investment without dredging, etc. or approximately \$22,000 per slip in this example.

Demand

There is reportedly excess capacity, and difficulty in renting smaller slips in the region, as newly completed dry stack options are tapping that market. Within the immediate region at the marinas surveyed there are an estimated 318 empty in-water slips. Primarily those open slips are constructed to accommodate boats of the relatively small length class of under 30'.

Marinas report waiting lists for larger size boat slips and the State registration and Federal documentation data cited above indicates a significant potential for that market and the berthing of boats 40' and over.

The current average size of the regional marinas is 280 in-water slips. Given the size makeup of the larger State registered and Federally documented vessels, the overall existing fleet of boats over 30' is estimated to be just under 2,800 (1,360 Federally documented and 1,431 State registered) in the region.

Table 3 illustrates possible initial slip allocations, market rates, and revenues based upon the various databases assimilated and interviews conducted for this study. Overall effective occupancy in this example is 80%. Based upon the operating budget income and expense structure for the existing Port Aransas Municipal Harbor (3), the revenue estimate in *Table 3* would be subject to approximately 35% annual operating costs; generating approximately \$.945 million for other purposes (3).

Table 3. Projected Revenue from New or Redeveloped Port Aransas in-Water						
Marina Slips - After Five Years From Start Up.						
			Number of In-Water			
Slip	Monthly	Annual	Slips in New	% & #		
Size(Feet)	Rate (\$)	Revenue	Marina	Occupancy	Revenue	
30	\$300	\$3,600	40	70%	\$100,800	
40	\$400	\$4,800	80	75%	\$288,000	
50	\$600	\$7,200	80	80%	\$460,800	
60	\$700	\$8,400	80	90%	\$604,800	
Total			280	(#) 224	\$1,454,400	

In summary, financial assessment of specific marina development or redevelopment should carefully consider not only existing but also emerging marina and dry stack facilities.

There does appear to be potential for increasing the number of larger recreational boats locating in Port Aransas. Whether that potential is best accommodated by redeveloping existing infrastructure or constructing an entirely new marina remains to be evaluated financially, in preparation for important public discussions.

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