ECONOMIC OPPORTUNITIES ANALYSIS

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Economic Opportunities Analysis

I. Introduction

The following document is an economic analysis in support of the plan for Fort Walton Beach's Commerce & Technology Park (CTP). The purpose of the analysis is to guide future investment and recruitment of activity. Both external and internal factors impact the marketable opportunities for the CTP, which are addressed in this analysis. The external factors impacting future development are consistent with those observed throughout the U.S., and and both expand and limit opportunities. Internal factors are those unique to Fort Walton Beach and the CTP. The opportunities defined are based on the assumptions that physical enhancement and expanded marketing will occur, as they are essential to achieving potential. Should this not occur, few, if any, of the opportunities are likely to be achieved.

This technical analysis is based on the following inputs:

- Individual and small group interviews with several stakeholders, including property and business owners (who do and do not own/operate in the park), departmental staff, and local workforce/educational institutions.
- A survey of more than 900 households in the Fort Walton Beach area, generating a detailed database of employment/income data and spending habits.
- A cluster analysis that identified local strengths and weaknesses given existing industry concentrations.
- Research related to the potential for Research & Development users.
- A review of secondary information and previous studies to gain a better understanding of the existing economic context.
- Forecasting of demand based on proprietary computer modeling.

The opportunities presented do not reflect the holding capacity of the land associated with the CTP; they reflect only market considerations. The CTP may physically be able to hold more or less built square footage than indicated, depending upon the level of redevelopment and any boundary adjustments. The opportunities represent the opinions of The Chesapeake Group, Inc. (TCG) based on substantial analysis and research and the collective experience of the professionals associated with TCG.

II. External Factors – National Trends Impacting Opportunities

Some of the recent national trends that are affecting how office/industrial space is used are described below. These trends can be observed throughout the US and are changing the way employment-oriented parks are planned and operated.

- **Millennial Mobility** – Particularly in households whose residents are ages 22–35 (often defined as Millennials), declining birth, fertility, and marriage rates have modified the

length of time members stay in one area to maintain employment at one geographic location. These households often seek jobs rather than careers with one employer or one geographic area. Migrations from one area to another are increasing across broad spectrums of the population.

- **Customized Manufacturing** – There are fundamental changes to commercial activity and related development. Additional changes are underway impacting future retail goods, related services, and professional services, resulting in significant changes to development patterns. These changes include a shift to custom and small-batch manufacturing that allow for more consumer choice while also allowing companies to maintain smaller manufacturing spaces based on CAD, robotics, augmented reality, new materials, and 3D printing. These changes are creating flexibility in the types of development that can house manufacturing functions.
- **Reduced Office Space Needs** – In addition to reduced space needs for manufacturing, there has also been a general trend toward less space per employee for office uses than in the past. This has been further reduced by a shift to open office plans, which have become the norm. These types of spaces foster more collaborative environments and also decrease space needs in buildings, thereby increasing internal net space.
- **Delivery of Medical Services** – It is unlikely that future medical space growth will be anywhere near its role in land use in the past. Demand for medical services will expand as the population grows and substantial segments age, but space demand will not correlate to the growth in demand in the same way that it has in the past. Conversations with significant hospital interests in states from Massachusetts to Florida and through the Midwest indicate that there are many factors involved in the transition from how medical space needs are changing, such as a diminished number of independent practitioners, a shift in focus from treatment to wellness, and growth in services through virtual activity and reaching out to employers, schools, etc., to deliver services in work, education, and other such environments within spaces associated with those entities.

Key Takeaways for the CTP

The factors noted above are some of the more pertinent ones affecting future growth potential in the CTP. In developing the Master Plan, understanding how these factors impact market demand and development potential will be important. The goal of the Master Plan is to develop a concept that is flexible to the current/future market while allowing existing businesses within the CTP to continue to grow.

III. Internal Factors Impacting Opportunities

Local factors that impact CTP opportunities include the need in the Fort Walton Beach and neighboring communities for expanded employment opportunities for both primary income and secondary incomes for current households. Although military activity and tourism dominate the community's economy, various analyses performed for this effort indicate that there are both gaps in and demand for additional businesses that can expand current and future space use and needs in the CTP.

IV. Cluster Analyses

A cluster analysis was performed using comparative assessment/"gap" methodology at the ZIP code and county levels using select criteria. The Fort Walton Beach ZIP code and Okaloosa County were compared to ZIP code areas around the U.S. using criteria consisting of population, households, incomes, transportation infrastructure, and military presence to identify commercial market gaps or under-represented operations. Using six-digit North American Industry Classification System (NAICS) codes— the most detailed level and includes 999,999 individual industry codes–the economies of all ZIP codes and counties were examined. Thousands of types of operations were reviewed to identify underrepresentation at either or both levels; those underrepresented at both levels were then grouped or clustered.

Although the analyses of economic activity at both the county and ZIP code levels defined business gaps in the Fort Walton Beach area compared to other areas that have similar demographics, location, transportation systems, and military influences, certain gaps were eliminated as being unlikely to occur or inappropriate for the CTP. For example, much Retail was excluded, as the City desires to enhance Downtown and business are not likely to locate both Downtown and in the CTP.

There is underrepresented activity in the Manufacturing, Wholesale, Retail, Logistics, and Professional and Business Services areas. Those that would be appropriate for the CTP include the following:

- *Manufacturing* – Commercial Bakeries, Additional Breweries, Machine Shops, Other Industrial Machinery Manufacturing, All Other Miscellaneous General Purpose Machinery Manufacturing, Custom Architectural Woodwork and Millwork Manufacturing, and Sign Manufacturing
- *Wholesaling* – Home Furnishing Merchant Wholesalers, Industrial Machinery and Equipment Merchant Wholesalers, Meat and Meat Product Merchant Wholesalers, Beer and Ale Merchant Wholesalers, and Flower, Nursery Stock, and Florists' Supplies Merchant Wholesalers
- *Retail* – Drinking Places (Alcoholic Beverages), Limited-Service Restaurants, Snack and Nonalcoholic Beverage Bars. (Other defined underrepresentation or gaps exist, but they are either not likely to locate in a business park or might be captured by Downtown)
- *Trucking and Logistics* – General Freight Trucking (Local), General Freight Trucking Long-Distance (Truckload), General Freight Trucking (Long-Distance, Less Than Truckload), Specialized Freight (except Used Goods) Trucking, and Freight Transportation Arrangement
- *Professional and Business Services* – Custom Computer Programming Services, Computer Systems Design Services, Environmental Consulting Services, Other Scientific and Technical Consulting Services, Corporate, Subsidiary, and Regional Managing Offices, Security Guards and Patrol Services, Freestanding Ambulatory Surgical and

Emergency Centers, All Other Outpatient Care Centers, Home Health Care Services, All Other Miscellaneous Ambulatory Health Care Services, Commercial and Industrial Machinery and Equipment (except Automotive and Electronic) Repair and Maintenance, and Appliance Repair and Maintenance.

V. Survey of Area Residents

Current economic conditions in households are a second major factor examined in this analysis. A survey of Fort Walton Beach area residents was conducted, with more than 900 households responding. Although this was not a random survey, the number of respondents was impressive for such a small focus area; most national surveys are based on a sample of 500–1,000 households out of more than 100 million in the country. In the remainder of this section, key findings from the survey are presented.

Respondents to the survey resided in the ZIP codes shown in Tables 1 and 2.

Table 1 – Primary Residential ZIP Code of Survey Respondents

ZIP Code	Percent	ZIP Code Name/Communities
32547	36.4%	Fort Walton Beach
32548	39.6%	Fort Walton B., West Destin, Okaloosa Island
32569	9.3%	Mary Esther
32579	7.2%	Shalimar

Table 2 – Additional Residential ZIP Codes of Survey Respondents

ZIP Code	Percent	ZIP Code	Percent
23548	0.1%	32542	0.3%
31548	0.1%	32544	0.4%
32404	0.1%	32550	0.3%
32459	0.1%	32563	0.3%
32503	0.3%	32566	1.0%
32513	0.1%	32578	1.3%
32536	0.7%	32580	0.4%
32539	0.6%	32584	0.1%
32541	1.1%		

A large percentage of survey respondents were ages 25–64, which not necessarily a reflection of average ages in households nor primary income earners.

Table 3 – Age of Survey Respondents

Age	Percent
Under 25	2.8%
25–34	20.0%
35–44	21.2%
45–54	25.2%
55–64	20.4%
65–74	8.6%
75 or over	1.8%

In the following tables, totals equal 100% because multiple answers were possible where more than one household member was involved.

The average number of people living in a household in the sample was 2.82 (above the average number in Florida).

Table 4 – Number of People Living in Household

Number	Percent
1	10.7%
2	39.4%
3	20.4%
4	18.5%
5	8.5%
6+	2.6%

In total, 80% of households do not have pre-school age children (labor force and labor participation rates are often lower in households with pre-school age children).

Table 5 – Household Members under Age 6

Number	Percent
0	80.0%
1	12.8%
2	6.2%
3	0.9%
4 or more	0.1%

The average household had 1.41 persons employed full-time.

Table 6 – Household Members Employed Full-time

Number	Percent
0	12.0%
1	43.1%
2	38.3%
3	4.9%
4 or more	1.7%

The average age of the household's primary income earner for all survey respondents was 48.7, and the average age for respondents from Fort Walton Beach was marginally below this figure, at 47.9.

Table 7 – Age of Primary Income Earner in Household

Age	Percent
Under 25	1.9%
25–34	19.9%
35–44	20.7%
45–54	22.3%
55–64	20.5%
65–74	11.0%
75 or over	3.7%

The average (mean) household income of respondents was $98,000 (Fort Walton Beach/Okaloosa County and beyond), which is $20,000–$25,000 above the median incomes used by the US Census Bureau using 2010 data. About 23% of households had total annual household incomes of $50,000–$75,000. The average (mean) total annual household income for Fort Walton Beach respondents only was substantially below the overall sample average, at $80,000. Point2Homes.com estimates that household incomes for Okaloosa County residents have risen more than 11% since 2010, and household income peaks for those in which the primary income earner is over age 45.

Table 8 – Household Income Levels

Income	Percent
Less than $10,000	0.7%
$10,000 to $14,999	0.4%
$15,000 to $19,999	2.6%
$20,000 to $29,999	6.1%
$30,000 to $49,999	15.2%
$50,000 to $74,999	22.8%
$75,000 to $99,999	17.5%
$100,000 to $149,999	17.3%
$150,000 to $199,999	11.2%
$200,000 to $249,999	2.6%
$250,000 or more	3.6%

About two-thirds of households included someone that was active or retired military. This is likely to have little impact on retail opportunities in the CTP, as opportunities are based on future CTP employment, but it is expected to have a significant effect on retail opportunities in other parts of Fort Walton Beach.

Table 9 – Households with Retired or Active Military

Military Status	Percent
Active	38.8%
Retired	24.5%
Not sure	1.0%
No	65.7%

A total of 81% of households included someone employed full-time. For Fort Walton Beach, this number is closer to 90%.

Table 10 –Household Members Employed Full-time

Number	Percent
0	12.6%
1	48.8%
2	31.1%
3	5.1%
4 or more	2.4%
Total	100.0%

The primary industries associated with those employed full-time were Military, Health Care, Professional, Scientific and Technical Services, and Retail.

Table 11 – Industries of Those Employed Full-time

Industry	Percent	Industry	Percent
Military	18.6%	Finance and Insurance	1.8%
Other (please specify)	17.7%	Management & Management Co.	1.6%
Health Care	8.5%	Banking	1.2%
Professional, Scientific and Technical Services	8.2%	Utilities	1.1%
Retail Trade	7.9%	Accommodations	1.1%
Educational Services	4.8%	Transportation	1.0%
Public Services	4.0%	Recreation	1.0%
Information or Information technology	3.8%	Mining, Oil or Gas Extraction	0.8%
Food Preparation or Services	3.8%	Social Assistance	0.8%
Construction	3.3%	Art or Entertainment	0.8%
Other Services	3.1%	Agriculture, Forestry, Fishing	0.7%
Manufacturing	2.2%	Warehousing	0.3%
Real Estate and Leasing	1.9%	Wholesale Trade	0.1%
Finance and Insurance	1.8%		

The “Other” category in Table 11 includes numerous respondents who did not assume they fell into different categories and were asked to list their industry. Responses included aerospace, aid for persons with disabilities, automotive, beauty, business shipping, auto sales, child care, church, church pastor, glass window repair, cosmetology, airport, unspecified government contractor, postal service, tree service, and welding. The majority of these would fit into one of the industries defined in the survey but was not recognized as such by the respondent.

The following are communities in which full time employment was located for residents of Fort Walton Beach, presented in order of response rate. The employment location of more than three-fourths of these respondents was two military bases or in Fort Walton Beach.

- Military Base
- Fort Walton Beach
- Mary Ester
- Destin
- Niceville
- Okaloosa Island
- Santa Rosa Beach
- Shalimar

Educational attainment for those employed full-time was high, with 33% having some college or an Associates degree, 30% having a Bachelor's degree, and 21% having an advanced degree. In general, the population surveyed was more educated than Florida as a whole.

Table 12 – Educational Attainment of Respondents Working Full-time

Education Level	Percent
Less than high school	0.4%
High school or GED	9.5%
Technical	4.3%
Some college or Associate's degree	32.5%
Bachelor's degree	30.0%
Advanced degree	21.0%
Not applicable	2.3%

There were substantial differences in educational attainment for active versus retired military. Although the proportion of those on active duty with a Bachelor's degree exceeded that for retired military, retired military educational attainment overall was above that for those on active duty. This difference is impacted by the educational benefits that accrue to military personnel while serving.

Table 13 – Military Status and Education Attainment

Education Level	% Active	% Retired
Bachelor's degree	46.7%	26.7%
Advanced degree	0.0%	75.0%
High school or GED	6.7%	20.0%
Some college or Associate's degree	13.6%	22.7%
Technical	0.0%	33.3%
Less than high school	50.0%*	0.0%

Note: Many complete their education during military service.
Table proportions do not add up to 100%, as multiple answers per household were possible.

Some job functions of those employed full-time are transferable from one industry or type of operation to another, including Management, Customer Service, and Engineering. Transferability of skills from one industry to another is a typical factor considered in location.

Table 14 – Job Function of Respondents Employed Full-time

Job Function	Percent
Management	9.3%
Customer Service	7.7%
Engineering	6.9%
Sales	6.5%
Skilled laborer	5.8%
Education	5.5%
Administrative	4.7%
Health Care Provider (Other)	3.7%
Information Technology	3.7%
Health Care Provider (Nurse)	3.0%
Accounting	2.9%

Job Function	Percent
Project Management	2.5%
Finance	1.9%
Consulting	1.5%
General Business	1.5%
Advertising / Marketing	1.4%
Business Development	1.4%
Health Care Provider (Doctor)	1.4%
Legal	1.4%
Art/Creative/Design	1.2%
Analyst	1.1%
Manufacturing	1.1%
Laborer	0.8%
Human Resources	0.7%
Semi-skilled laborer	0.7%
Quality Assurance	0.6%
Science	0.6%
Strategy/Planning	0.6%
Distribution	0.4%
Production	0.4%
Public Relations	0.4%
Purchasing	0.4%
Research	0.4%
Health Care Provider (Dental Hygienist)	0.3%
Product Management	0.3%
Training or Internship	0.3%
Health Care Provider (Dentist, Orthodontist, Endodontist)	0.1%
Other	16.9%

As was the case with industries shown in Table 11, some people responded in a manner they believed either did not fit in any of the listed functions or had multiple functions. Examples of "Other" include aircraft maintenance, aircraft technician, airline pilot, bartender, burger flipper, bail bondsman, business owner, child care provider, corrections officer, cook, data configurer, data testing, emergency management, environmental services, event planning, first responder, hospitality worker, lab tech, loader, and life skills advisor.

About 14% of all respondents employed full-time worked for a military contractor, either on or off-base.

Table 15 – Household Members Employed Full-time by Military Contractor

Employed by Military Contractor?	Percent
Yes	13.7%
No	85.7%
Not sure/Not answer	0.6%

In total, 20% of households had someone employed part-time that preferred full-time employment. The percentage for Fort Walton Beach households is higher than 25%.

Table 16 – Households with Member Wanting Full-time Employment but Working Part-time

Want Full-time Employment	Total Sample	Fort Walton Beach Residents
No	80.1%	72.11%
Yes, 1 person	18.4%	22.31%
Yes, 2 or more people	1.5%	5.58%

Table 17 – Fort Walton Beach Households with Member Desiring/Seeking Full-time Employment

Want/Seeking Full-time Employment	FWB Residents
No	72.11%
Yes, 1 person	22.31%
Yes, 2 or more people	5.58%

Military base contractors employed 13% of those seeking or desiring full-time employment.

In general, respondents seeking full-time jobs had lower educational attainment than those employed full-time.

Table 18 – Education of Persons Having/Seeking Full-time Employment

Level of Education	Seeking Full-time Employment	Working Full-time
Bachelor's degree	24.6%	30,0%
Advanced degree	6.6%	21.0%
High school or GED	24.6%	9.5%
Some college or Associate's degree	36.1%	32.5%
Technical	4.9%	4.3%
Less than high school	3.3%	0.4%

Survey results strongly indicate that there are unmet employment needs for residents that may be mitigated by an expansion of activity at CTP.

Increasingly, “cottage” or home-based businesses are contributing to household income and often represent opportunities for incubator space and small office activity if affordable and reasonable options are available. Of the total number of households surveyed, 18% had someone who operates a home-based business or primary or secondary income-generating businesses, including the following:

- Art
- Computer programmer
- Consulting, Web Design, Maintenance
- Digital Marketing Consultant
- Engineering Services
- Graphic Design

- IT Services
- Kitchen/Bath Cabinets
- Marine mechanic (mobile)
- Medical transcription
- Multi-level marketing

Table 19 –Households Operating a Business from Home

Operate Home Business?	Percent
Yes	18.3%
No	81.2%
Not sure	0.5%

Stability of Residents and Workforce

Nearly three-fourths of respondents owned the housing unit in which they resided.

Table 20 – Ownership of Current Housing Unit

Own or Rent	Percent
Own/Buying	72.3%
Rent	25.6%
Neither	2.1%

Based on the responses, the average household had lived at their current address for 8.7 years, which is comparable to areas in which the military has a significant presence but is relatively low compared to areas without a dominant military presence.

Table 21 – Tenure in Current Unit

Years	Percent
2 years or less	29.4%
3–4 years	19.9%
5–9 years	16.9%
10–19 years	17.8%
20 or more years	16.0%

Residents today often move from one community or one area of the US to another. This movement is typical in military communities as a result of reassignment and other factors and is common practice today among large population clusters such as Baby Boomers and Millennials. About 4 in 10 households are likely to move in the next five years.

Table 22 – Likelihood of Household Moving in Next Five Years

Likely to Move	Percent
Yes	39.1%
No	43.4%
Maybe	17.5%

In Fort Walton Beach/Okaloosa County, 6 of every 10 household respondents reported being likely to move in the next five years. Of this, 40% did not expect to stay in this general area of Florida, which will result in a transitioning in the labor force.

Table 23 – Likelihood of Household Staying in Area

Likely to Stay in Area	Percent
Yes	23.4%
No	41.6%
Uncertain	21.3%

Work Transportation and Households

Proximity to employment and the means of arriving at jobs can play a future in the enhancement of a business park such as the CTP.

Roughly 99% of all responding households owned or leased at least one personal vehicle, and more than 8 of every 10 households owned or leased at least 2 cars.

Table 24 – Number of Household Personal Vehicles Owned or Leased

Number	Total	FWB Residents
0	1.2%	1.3%
1	15.6%	14.7%
2	50.5%	56.9%
3	23.1%	19.1%
4 or more	9.6%	8.0%

Some alternative transportation modes were used by respondents for trips to and from work; however, walking and biking played a reasonable role, with more than 11% walking and 6% bicycling to and from work on a regular basis. This indicates that the ability to bike or walk to work to the CTP should be a factor in the future enhancement.

Table 25 – Alternative Means of Transportation to or from Work

Means	1/wk or +	Few times/mo	Few times/yr	Less often
Bicycle	5.9%	2.9%	0.4%	3.3%
Walk	11.8%	3.6%	0.9%	1.9%
Transit	2.6%	0.3%	0.4%	0.8%

Use of transit by Fort Walton Beach resident respondents was higher than that for the total sample, with about 4% using transit to get to and from work frequently compared to 2.6% for the total sample.

Table 26 –Use of Transit for Work, Fort Walton Beach Residents

Frequency	Percent
Once/week or more	4.1%
Once/month	0.4%
Less often	0.8%
Rarely or never	94.7%
Total	100.0%

Commercial Activity and CTP

Typically in business parks, the higher the concentration of employment, the more significant the demand for certain retail goods and services. The proximity and desire of the City of Fort Walton Beach to have both a viable Downtown and CTP simultaneously is undoubtedly a significant factor in how much retail goods and services activity will be found in the CTP in the future. The resident survey indicated the following.

About two-thirds of all households ate dinner or lunch at or purchased from a food service establishment at least once each week. Nearly 9 out of every 10 households made such trips once each month or with greater frequency. Assuming a higher concentration of employment in the CTP in the future, such trips could provide the potential for revenues for food service establishments.

Table 27 – Frequency of Lunch/Dinner Outside Home

Frequency	Lunch	Dinner
A few times/week	47.6%	34.0%
About once/week	26.0%	32.9%
A few times or twice/month	15.0%	20.8%
Once/ month	5.3%	5.9%
4–9 times/year	3.9%	2.5%
Once or twice/year	1.1%	2.1%
Less often than once/year	1.1%	1.8%

Lunch trips are often important for a business park. As found above, about 90% of survey respondents ate or purchased lunch at food service establishments frequently (at least a few times per month). About 17% of all lunch trips were related to work.

Table 28 – Relationship between Employment and Eating Lunch/Dinner Outside Home

Relationship	Lunch	Dinner
Most trips for lunch related to/for work	17.4%	1.9%
Few lunch trips related to work	22.8%	10.3%
Rare or no lunch trips related to work	55.6%	85.5%
Not certain	4.2%	2.3%

There is some question about the potential to recapture dollars beyond food services for Fort Walton Beach in the CTP and Downtown. For all purposes, about one-fourth of respondents made purchases online at least once each week, generally exporting sales beyond the Panhandle areas. When combined with the ability of many to make purchases at facilities associated with military activity, such as commissaries, recapturing dollars could prove daunting.

Table 29 – Frequency of Online Purchases (Exportation of Dollars)

Frequency	Percent
A few times/week	17.1%
About once/week	18.9%
A few times or twice/month	29.9%
Once/ month	8.9%
4 to 9 times/year	15.3%
Once or twice/year	5.9%
Less often than once/year	3.9%

R&D OPPORTUNITIES

Research & Development (R&D) opportunities focus on three general areas—agriculture in the surrounding region, natural resources, and military technology transfer. R&D opportunities can be considered an asset associated or linked to R&D.

As previously noted, the primary industry in the area is Military, with Tourism considered the second economic engine. Tourism is dependent primarily upon the abundance of natural resources. Also, although most of the land in the county is associated with military activity, the other primary industry that is in a dominant position is Agriculture, with the focus in neighboring areas on two main crops, cotton and wheat.

Natural Resource R&D

The natural resources in the area include freshwater lakes, Gulf Coast salt marshes, and mangroves as well as plants, fish, and organisms such as seagrasses, scallops, and 60 species of birds.

Based on current research activity on the types of resources in Florida, the US, and around the world, there is an opportunity to capitalize on the assets by expanding R&D in the CTP that focus on the following:

- Expanded use of tannic acid in modern medicine.
- Faster-growing opportunistic seagrasses to accelerate recovery from increasingly severe conditions.
- Expanding actionable scientific assessments, information, and tools coastal communities to make risk management decisions.
- Re-seeding projects for scallops that are not successful until stresses causing the reduction have improved enough to allow the new scallops survival.
- Hybridization between bird species that do not normally interbreed, which has increased due to human impacts on natural environments, such as habitat alteration or introductions of non-native species.
- The migration of mangroves from Southern Florida to the Panhandle; mangroves have been most recently found along St. George Island and as far west as Santa Rosa Island in Escambia County. An ecological regime shift will occur when one of those bedrock species is replaced by another, which could spell chaos.

Using mangroves as an example of the linkage between the natural resources and research opportunities, the following are noted:

- There is an incompatibility between mangroves and seagrasses. Mangroves replace seagrasses and cannot thrive in shaded environments.
- Seagrasses are the environment in which shellfish and other fish and birds associated with the Gulf and related waters survive and thrive.
- Destruction of the habitat, whether through invasive species, oil spills, or other means, can devastate entire industries. With an invasive species that becomes dominant, the damage can become permanent.
- Mangroves quickly taking over seagrass areas in the Panhandle requires substantial research to understand the issues and to develop mitigation techniques. This results in considerable employment opportunities for a full range of people, from scientists to those who gather samples. Research requires lab, equipment storage, testing, and other spaces.
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Additional opportunities for research associated with natural resources are summarized below:

- *Fresh water lakes in Fort Walton Beach Area* – Tannic acid has excellent potential for use in modern-day medicine.
- *Gulf Coast salt marshes with faster-growing, opportunistic seagrasses to accelerate recovery from increasingly severe conditions* – Expand actionable scientific assessments, information, and tools that coastal communities can use to make risk management decisions.
- *Scallops* – Scallops are mass spawners and need a relatively high density for reproduction to be successful. Re-seeding projects will not be successful until the stresses causing the reduction to have improved enough to allow the new scallops survival.
- *Birds* – Approximately 60 species of birds use habitats in the Florida Panhandle Gulf Coast. Hybridization between species that do not normally interbreed has increased due to human impacts on natural environments, such as habitat alteration or introductions of non-native species.

Agriculture R&D

The Panhandle area has two major crops—cotton and wheat. Florida ranks #5 among all states in cotton production, surpassed only by Alabama, Arizona, Arkansas, and California (listed in terms of production). Cotton is grown only in the Panhandle area of Florida. According to federal agriculture statistics, Santa Rosa County is #2 in cotton production in Florida, with 46,900 bales yielded in 2016, and Escambia County is #3, with 25,400 bales yielded, followed by Holmes at #5, Okaloosa at #7, and Walton #10. Areas in Alabama closest to Fort Walton Beach are also significant producers of cotton, as is Jackson County, which is ranked #1 in Florida and the Panhandle area.

Cotton has played a lesser role in material production in recent years than in the past. Its re-emergence is likely dependent upon solving microbial issues that make the production a multi-step process. In practice, the antimicrobial effect is obtained through the application of specific chemical products and the incorporation of these substances into chemical fibers during the spinning process. In bio textiles, the chains of molecules containing antiseptic substances are grafted onto the base polymers of the raw fabric. Research into genetic modification of the cotton plant with the same properties instead of adding the antimicrobial characteristics during fabrication could have a dramatic increase in its future use. Furthermore, drone technology, swarming, robotics, and other technology linked to operations already in the CTP applied now to the military is being tested. The non-military application could result in the expansion of current operations in the CTP if such entities expand involvement or get involved.

Wheat production in Florida totals 570,000 tons. Santa Rosa County is the #1 producer of wheat in Florida and Escambia County is #2. Although wheat is susceptible to changes in climate conditions, it is being addressed as having a potentially significant role in human medicine. Added research potential exists for the following:

- Wheatgrass contains chlorophyll, which has almost the same molecular structure as hemoglobin.

- TALE (wheatgrass extract) may have preventive and therapeutic potential in the management of Alzheimer's Disease.
- Future extreme weather events, such as prolonged periods of drought or heavy rainfall, could cause wheat supply market shock.
- Diseases and grass weeds that have become resistant to conventional crop protection agents are increasingly causing harvest losses.

Military Technology Transfer

In addition to the opportunities associated with agriculture and natural resources, additional opportunities exist related to military activity in the area. There is little question that the US Department of Defense has and will continue to invest substantial time, energy, person-power, and fiscal resources on enhancing the defense of the U.S. through extensive research efforts. There is also little question that many benefits beyond the protection of our nation are derived from the technological transfer or application of technology for non-military purposes. Such transfer is, in some cases, reversed. For example, continued technology-based research into helmets used in professional football is now under review for its application in military helmets.

Significant opportunities exist for the CTP in Fort Walton Beach to expand on the technology transfer being developed and employed in the defense industry in the area that represents substantial additional research and product development, such as:

- Autonomous vehicle use in construction and specific industries such as mining
- Application of swarming to agriculture
- Enhanced robotic sensitivity for agriculture production
- Application of artificial intelligence in both the natural resource preservation and agriculture industries
- Application of drones and deployment for safety for a host of outdoor recreation from water-based to mountain climbing
- Expanded application and enhancement of drones in storm projections and other natural disasters

Potential Park Tenants Related to R&D

Potential tenants for the CTP that may be interested in the areas of research noted above include the following:

- Nestle-Purina
- Prometheus Laboratories, Inc.
- Astragen-Zeneca
- Biogen
- Celgene
- Kite Pharma
- US Department of Agriculture, USDA
- National Oceanic and Atmospheric Administration (NOAA)
- Medpace
- INC Research
- Prometic Life Sciences Inc.
- AxoGen

- Aquatic Systems Lake & Wetland Services
- Johnson & Johnson
- Bayer AG
- Tetra Tech
- Product Manufacturing & Development, Inc.
- Pharmaceutical Product Development
- Hamon Research-Cottrell
- Abbvie Inc.
- Novartis
- Roche Pharmaceuticals
- Muse Biotechnology
- Dow Agro-Sciences LLC
- Cargill Inc.
- Agrium Inc.
- Archer Daniels Midland Company
- DuPont
- BASF
- Monsanto
- Adecoagro
- J.R. Simplot Company
- Benson Hill Biotechnology
- Chetu, Inc.
- Calyxt
- Caribou Biosciences, Inc.
- Florida International University
- Florida Atlantic University
- Mote Marine Laboratory
- Southern Research

In addition, other entities such as universities and agencies may seek involvement or be recruited, including the US Department of Agriculture, NOAA, Florida International University, Florida Atlantic University, and Mote Marine Laboratory.

Demand Forecasts and Supportable Space

Many factors impact the potential demand for space for goods and services in the CTP, including:

- External and internal factors previously noted
- Area-wide gaps that are best accommodated in a business park
- Employment conditions as defined by the survey
- Likelihood that the labor pool will continue to stay in the area.
- Ability to get to and from work in a cost-effective and less stressful manner
- Small business activity operating from homes.
- Demographics of the community, including population, households, incomes, educational attainment, and trends
- Visitation by those coming from outside the region

Conceptually, all factors are employed in TCG's proprietary input-output matrix that defines estimates based on demand for goods and services. The extensive multi-level matrix inputs are updated on a quarterly basis and are localized based on survey findings and other known conditions. In developing estimates, the most conservative assumptions are used so demand is not overstated. Understatement of resulting opportunities for space is possible when the lowest estimates are employed in computer modeling.

The following summarizes additional related information on the area's population:

- According to Point2homes.com, Okaloosa County's population is roughly 180,000, a statistically insignificant change from 2010 (conservative estimate compared to US Census, which estimates a population of roughly 203,000)/ The population is about evenly split between males and females.
- Point2homes.com defines 72,430 households residing in the five-mile radius.
- Point2Homes.com defines the average household income at roughly $71,400, with a median income of $55,900 in 2016. Income is estimated to have increased by 11% since 2010. Median income is substantially higher for households with a primary income earner age 45–64 and for those over age 65 than for those below age 45.
- Within a five-mile radius of the CTP are about 26,800 households, with a population of 73,600, and more than 1,800 "businesses" or non-residential operations employ more than 23,700 people, according to zip-codes.com. The aggregate household income in the five-mile radius is well over $1.4 billion and is likely to be higher than $1.9 billion.

Table 30 –Residential and Non-residential Businesses within Five-mile Radius of CTP

	Total
Households	26,789
Population	73,634
Number of businesses	1,842
Number of employees	23,741
Total Income (use of median)	$1,387,072,000
Avg. # of employees/business	12.89

- Okaloosa County continues to grow. About 5,300 housing units were permitted between 2012 and 2017, representing an annual average of 883 units permitted.
- The largest number of permits issued by the County was in 2017, and the smallest was in 2014 (2012–2017). The 2017 figure is the highest number of units permitted in the 10 years since 2008 or the beginning of the Great Recession.

Table 31 – New Housing Units Permitted, Okaloosa County, 2008–2017

	2017	**2016**	**2015**	**2014**	**2013**	**2012**	**2011**	**2010**	**2009**	**2008**
Total units	1199	837	702	590	1045	922	749	547	410	1093
Units in single-family structures	901	745	690	582	645	643	747	547	410	351
Units in all multi-family structures	298	92	12	8	400	279	2	0	0	742
Units in 2-unit multi-family structures	2	4	12	0	0	0	2	0	0	0
Units in 3- and 4-unit multi-family structures	0	8	0	8	0	0	0	0	0	24
Units in 5+ unit multi-family structures	296	80	0	0	400	279	0	0	0	718

Source: HUD

- In 2004 and 2005, before the advent of the Great Recession, Fort Walton Beach permitted a substantial number of non-single-family homes, roughly 270.

Table 32 – Fort Walton Beach Growth Based on Permits Issued by Year, 2001–2009

Year	2009	2008	2007	2006	2005	2004	2003	2002	2001
Total units	20	17	22	51	209	120	61	26	12
Units in single-family structures	20	7	13	34	33	27	33	24	12
Units in all multi-family structures	0	10	9	17	176	93	28	2	0
Units in 2-unit multi-family structures	0	0	0	0	0	0	0	2	0
Units in 3- and 4-unit multi-family structures	0	0	0	0	0	0	6	0	0
Units in 5+ unit multi-family structures	0	10	9	17	176	93	22	0	0

Source: HUD

- Fort Walton Beach continues to permit new housing units, with 626 units between 2010 and 2017; the largest number of permits were issued in 2005, at 209.
- Since 2010, the largest number of permits for new housing units was issued in 2013, at 439, representing about two-thirds of all units permitted between 2012 and 2017. This is significant for a number of reasons—it is the most substantial number permitted in any year since at least 2001, and 90% of the units were non-single-family units or multi-unit buildings and were absorbed into the market, indicating potentially unmet demand for housing.

Table 33 - Fort Walton Beach Growth Based on Permits Issued by Year, 2010–2017

Year	2017	2016	2015	2014	2013	2012	2011	2010
Total units	44	41	33	46	439	23	21	19
Units in single-family structures	44	41	33	46	39	13	21	19
Units in all multi-family structures	0	0	0	0	400	10	0	0
Units in 2-unit multi-family structures	0	0	0	0	0	0	0	0
Units in 3- and 4-unit multi-family structures	0	0	0	0	0	0	0	0
Units in 5+ unit multi-family structures	0	0	0	0	400	10	0	0

Source: HUD

Maintenance of market share is often critical to the continued viability of an urban community. Maintenance of the percentage of growth can help to maintain fiscal and political resources and future parity.

- According to the 2010 Census, Okaloosa County had 76,140 households and Fort Walton Beach had 8,947. The Fort Walton Beach total represents about 11.8% of the total in the

county. Between 2012 and 2017, the number of new units permitted in Fort Walton Beach represented 11.8% of the total permitted in the county.

- It is critical to note that, and as anticipated, the portion of permits issued during the time for single-household structures is well below the proportion of all units associated with Fort Walton Beach. Fort Walton Beach will increasingly be dependent upon redevelopment and multi-unit development in the future. Proximity to employment centers such as the CTP can be a factor in new development because it can enable walking to and from work and proximity to other activities.

Table 34 – Summary, Housing Permit Information for Okaloosa County and Fort Walton Beach, 2012–2017

	County/Total	**County/Yr**	**FWB/Total**	**FWB/Yr**	**FWB % of Total**
Total units	5295	883	626	104	11.8 %
Units in single-family structures	4206	701	216	36	5.1%
Units in all multi-family structures	1089	182	410	68	37.6 %
Units in 2-unit multi-family structures	18	3	0	0	0.0%
Units in 3- and 4-unit multi-family structures	16	3	0	0	0.0%
Units in 5+ unit multi-family structures	1055	176	410	68	38.9 %

Source: HUD

- It is also noted that the average proportion of units associated with Fort Walton Beach since 2012 has been higher than in the few previous years, even if 2013 is excluded.

Table 35 – Fort Walton Beach Share of New Housing Units Permitted, 2007–2017

Year	**2017**	**2016**	**2015**	**2014**	**2013**	**2012**	**2010**	**2009**	**2008**	**2007**
% in FWB	3.7%	4.9%	4.7%	7.8%	42.0%	2.5%	2.8%	3.5%	4.9%	1.6%
% multi-family	0.0%	0.0%	0.0%	0.0%	100.0%	3.6%	0.0%	0.0%!	0.0%	1.3%

Source: HUD

- Defense spending is the catalyst for most economic activity in Okaloosa County and Fort Walton Beach and also the generator for much of the current space in the CTP. Defense-related spending is a direct investment by the federal government and allows for contractual relations between local businesses and the military.
- In Okaloosa County, defense-related spending accounts for 73% of economic activity and drives about 35% of Northwest Florida's regional output. Defense activities in Northwest Florida generate an estimated 192,000 jobs, and 7 of the 10 largest defense contractors in Florida have a presence in Okaloosa County, with some located in the CTP at present.

- The military veteran population will grow by nearly 1,000 in Okaloosa County by 2022 and rise to almost 36,000 by the 2040s. Cash flows through the US Department of Veterans Affairs in support of these individuals totals well over $200 million annually.
- Tourism is a significant economic generator for the area and Fort Walton Beach, having a potential impact on future uses in the CTP. Unlike the southern areas of Florida, tourism peaks in the summer months of June and July.

- Measured by tax revenues collected, tourism continues to expand, as shown in Table 36, which includes data through FY 2016. Continued growth since FY 2016 is certain because of the opening of additional hotel rooms in Mary Esther in 2017.

Table 36 – Okaloosa County Tourist Development Tax - 2%
Tax Revenue Comparison: FY 2013–FY 2016

Month	FY 2013	FY 2014	FY 2015	FY 2016
October	$609,091	$680,331	$886,981	$1,068,987
November	$259,607	$273,038	$313,442	$356,655
December	$288,498	$291,672	$320,916	$390,078
January	$298,995	$332,036	$410,853	$436,047
February	$395,790	$430,183	$492,951	$554,344
March	$1,118,616	$1,009,474	$1,033,763	$1,276,174
April	$905,964	$1,038,269	$1,248,990	$1,313,571
May	$1,265,607	$1,441,156	$1,628,069	$1,744,277
June	$2,797,226	$2,909,099	$3,247,331	$3,354,266
July	$2,897,647	$3,330,612	$3,688,645	$4,127,134
August	$1,588,763	$1,907,946	$2,009,054	$1,901,099
September	$1,098,415	$1,143,073	$1,434,557	$1,559,595
Total	**$13,253,220**	**$14,786,891**	**$16,715,554**	**$18,082,228**

- 2015 employment data indicate that Fort Walton Beach has more employees in "Accommodation and Food Services" than any other reporting major category of establishments. It is likely that there is a higher number of employees in "Health Care and Social Assistance" for which data are not revealed because of the limited number of establishments that could be traced directly to one or a small number of related employers. There is also substantial employment in Manufacturing, Retail Trade, Transportation and Warehousing. Professional, Scientific & Technical Services, and Administrative & Support & Waste Management and Remediation Services. Resident survey results indicated that many in the last category are associated with other than Waste Management and Remediation Services.

Table 37 – 2015 Employment Categories, Fort Walton Beach Area

Industry Description	# Establishments	Total Employment
Manufacturing	32	1488
Wholesale Trade	39	279

Retail Trade	151	1861
Transportation and Warehousing	20	824
Information	13	234
Finance & Insurance	63	490
Real Estate and Rental and Leasing	53	321
Professional, Scientific, and Technical Services	94	604
Administrative & Support & Waste Mgmt. and Remediation Services	56	1420
Educational Services	2	suppressed
Health Care and Social Assistance	95	*suppressed
Arts, Entertainment, and Recreation	13	136
Accommodation and Food Services	96	2111
Other Services	66	465

**Suppression usually occurs when numbers are limited or there is one dominant entity whose numbers can be exposed because of the scale of the large entity.*

- Employment levels continue to rise in the area, and technical unemployment levels continue to fall, following national patterns.

Table 38 – Labor Force, Employment, Technical Unemployment, and Technical Unemployment Rates, Okaloosa County, 2013–2016

Year	Labor Force	Employed	Unemployed	Unemployment Rate (%)
2016	93,827	90,060	3,767	4.0
2015	91,620	87,508	4,112	4.5
2014	92,115	87,383	4,732	5.1
2013	92,115	86,849	5,266	5.7

- As previously noted, 20% of households have a member employed part-time that would like full-time employment. The percentage of Fort Walton Beach households is higher at 25%.

Substantial additional growth in households in the areas around Fort Walton Beach and opportunities for increased density within the City's limits are projected. This growth will result in additional employment needs and demand for space exceeding current levels in the near future. The CTP is situated to capture the increasing demand with amenities that enhance its physical appearance and functionality as a modern business park. It has quality access, underutilized land, redevelopment potential, and potential to accommodate additional housing nearby to afford walkability to and from work.

Future Space Demand & Needs for CTP

As previously noted, all external and internal factors, data from the resident survey, and demographic factors were employed in TCG's proprietary input-output matrix to define demand estimates, with the most conservative assumptions used. Therefore, demand may be understated, but it is not overstated in the economic model.

Critical in the modeling are the following:

- All previously defined factors.
- Current and future employment needs of Fort Walton Beach and the general area community defined through the survey, which indicates underemployment going beyond the federal "official" unemployment figures.
- Need of Fort Walton Beach to maintain market share within the region so the future role of the City is not diminished.
- Need for incubator space to accommodate small business growth and spur continued entrepreneurship for the diverse economic activity identified as already existing in home-based activity.
- Potential for R&D associated with natural resources.
- Potential for R&D associated with agriculture.
- Technology-shifting and application from the military to the private sector.
- Utilization of space per employee or operator:
  - 225 square feet (sf) per employee for traditional non-home office activity
  - 300–400 sf of space per employee for incubator activity
  - 500–550 sf of space for research activity per employee
  - 1,000 sf per employee for distribution, shipping, and logistics
  - 500 sf per employee for smaller manufacturing, including technology-driven manufacturing utilizing 3D printing, etc

Demand forecasting indicates that between 1.15 million and 2.25 million square feet of additional space are marketable in the CTP based on information in Table 39.

Table 39 – Marketable Additional Space in CTP

Space	Top Range (sf)	Low Range (sf)
Meet FWB population needs	695,000	350,000
Incubation activity	60,000	50,000
Market share of county growth	1,390,000	700,000
Sub-total	2,145,000	1,100,000
R&D space	100,000	150,000
Total	2,245,000	1,150,000

The composition of space regarding the size of individual units for the "top range" is shown in Table 40.

Table 40 – Composition of Additional Marketable Space in CTP

Space	10,000 sf or less	10,001–24,999 sf	25,000–34,999 sf	> 35,000 sf
Meet FWB population needs	50–60,000	50,000–100,000	250,000	285,000
Incubation activity	60–50,000	na	na	na
Market share of county growth	70–100,000	50-100,000	540,000	650,000
R&D space	25,000	75,000	50,000	na
Total	195–235,000	175–275,000	840,000	935,000

Future Additional Compatible Space

There is potential for ancillary activity in the CTP if activity expands or opportunities defined are seized. Should the CTP activity grow, the ancillary activity would not impact Fort Walton Beach's desire for enhanced activity and vibrancy Downtown. The estimates of ancillary activity are:

- Retail/food services space of 40,000 sf
- Business-oriented chain transient accommodations (hotel)

Ancillary activity should not be pursued until growth in defined space to accommodate opportunities is certain.

Capitalizing on Opportunities

Capturing the added activity and related space will not occur unless there is a vision to modernize and enhance the physical setting within the CTP and programmed change that investment can ensure will occur.

Essential non-physical steps to capitalize on the defined opportunities must be taken, as they will not occur unless the opportunities are sufficiently promoted. The steps differ depending upon the opportunities pursued. The following outlines the suggested steps for implementation.

1. R&D

Possible methods for pursuing R&D include recruiting individual companies through a coordinated, continual process directly and/or forming a partnership or consortium. The second is the preferred method for the CTP.

Fundamental to R&D recruitment activity is the establishment of a "blue ribbon" committee composed of national or international business interests from the CTP, established agricultural interests, natural resource interests, the area's higher education institutions, and other interests involved with defined areas of research. This methodology and partnership are suggested for the following reasons:

- Can help form and solidify a partnership between the federal and state levels of government, with more significant contact than now occurs and expanded relationships.
- May help expand local higher education opportunities that may contribute to retain and potentially increase the proportion of residents seeking higher education within the community.
- Potentially brings in more significant interests and dollars.
- Has "staying power" – research, if and when it turns into product "development," often takes 15+ years.
- Likely to yield high levels of employment for highly-skilled individuals in the future, increasing the potential to expand a "permanent younger resident" base and use the skills of an educated workforce that exists in the area or nearby.
- Approach has proven to be successful elsewhere.

The "blue ribbon" committee might also be involved with the following:

- Licensing of high-potential technologies
- Forming companies around technologies
- Building management teams with executives that possess necessary experience
- Assisting with market acceleration using specialized tools, people, and infrastructure

2. Developer Recruitment

Additional interests may need to be attracted to accomplish the development objectives for specific sites or collection of sites. Developer recruitment will be more cost-effective and less time-consuming than individual tenant recruitment. Redevelopment of some parcels and development of other parcels may require partnerships among the current owners and others, someone to buy the property, or other investors to bring it to fruition. This is necessary for many reasons, including insufficient interest by current property owners, inadequate fiscal capacity, and inexperience. Recruiting other local and outside interests can result in purchase agreements, shared development of property with dual equity positions, and other arrangements.

The need for and level of "pre-screening" potential contacts is a fundamental issue in the process. Consideration must be given to available databases (costs), cost-effectiveness of the "pre-screening," and the likelihood of success with obtaining accurate information from a "pre-screening" process. Generation of an initial list of developers essentially involves pre-qualification, as the developers sought should have experience doing similar projects as well as appropriate fiscal capacity. Thus, the research consists of identifying developers through their projects. The most appropriate ways of doing this for non-local interests are through:

- Contact with professional organizations that track creative development.
- Tapping libraries associated with professional organizations that deal with unique situations such as the American Planning Association (APA).
- Review of focused development publications.
- Internet research based on articles about desired types of efforts from around the U.S. and the world.

3. Creative Non-government Funding for Marketing or Recruitment Effort and Investment in CTP

At present, there is vacant space in the CTP as well as vacant or underutilized land. However, no real surplus inventory of small spaces or space in one area of the CTP exists. This lack of inventory is particularly true for flex and incubator spaces in concentrated areas of the CTP. Such space is difficult to finance through traditional means at present. Several non-government funding sources could be fostered but controlled by the private sector that would likely be successful in the CTP. One would be an "economic development capital fund" with shared risk by a composite of investors; the other would be "crowdfunding" at the local level. Both would be expected to earn returns to the contributors.

4. Individual Business Recruitment

Although developer recruitment is the most cost-effective method, it may be necessary to recruit individual operations in limited cases. Success will be dependent upon increased cooperation among the City, Mary Esther, the County, the Chamber of Commerce, and regional economic development interests (e.g. the Okaloosa EDC) and local CTP interests. In developing a recruitment process, the following are essential:

- Define who will be involved in the effort (organizations and people).
- Define who will coordinate efforts.
- Define individual and groups functions within the process.
- Develop a time frame for the process.
- Identify what can be offered.
- Propose measures to evaluate success.

5. Marketing Materials

All marketing materials for any of the selected activities should be prepared for online dissemination, as it is the most cost-effective method. Success with any and all marketing is in preparation before solicitation and follow-up. Defining prospects, developers, and others in advance of solicitation is essential. Once initial contact is made, follow-up should be done with any interest that does not respond negatively to or opts out of the initial contact. It is also suggested that a website be developed that is focused on the recruitment effort.

Contact Information for R&D Activity

Entity	Phone	Other
BioCote Uk	44-0-2477-489	
PurThread	(919)-234-0220	
Unifi, Inc.	(336)-294-4410	
DeltaPine	(314)-694-1000	
	1-(613)-545-0390	
DYNA-GRO	(800)-396-2476	
	(510)-233-0254	
Americot	(806)-793-1431	
Advanta	(469)-828-1852	
Bioceres (Argentina)	54-34-1486-1100	
US Department of Agriculture	(202)-720-2791	
Innocent Alps	43-662-882883	
Bondi Wheatgrass	61-2-9311-4740	
Bolthouse Farms	(661)-366-7209	
InVentiv Health	1-844-441-0444	
AAIR Research Center	585-442-1980	
DBV Technology Offices	33-(0)1-55-42-78-78	
	(212)-271-0863	
	(908)-679-5234	
Aimmune	(650)-614-5220	
Clinical Research of South Florida	(305)-445-5637	
Tidewater AREC	(757)-657-6450	
UGA Agriculture and Environmental Science	(706)-542-3924	
USDA Fort Lauderdale	(954)-475-0541	
USDA Miami	(305)-492-1800	
	(786)-573-7096	
USDA Canalpoint	(561)-924-5227	
USDA Gainesville	(852)-374-5702	
Bayer AG	49-214-30-1	
Dow AgroSciences	(317)-337-3000	
Cargill Inc.	(785)-285-8008	
Meat Solutions	(620)-225-2610	
North American Food Innovation	(970)-482-8818	
Agrium Inc.	(970)-685-3600	
Dupont	(302)-774-1000	
Pioneer Hi-Bred International Inc.	(515)-535-3200	
BASF	(973)-245-6000	
Simplot AgriBusiness Headquarters	(800)-635-9444	
Benson Hill Biosystems	(314)-222-8218	info@bensonhillbio.com
Chetu	(954)-342-5676	sales@chetu.com
Calyxt	(651)-683-2807	contact@calyxt.com

Entity	Phone	Other
Caribou Biosciences, Inc.	(510)-982-6030	info@cariboubio.com
NINDS	(301)-496-4000	
UF College of Veterinary Medicine	(352)-392-2226	
Archer Daniels Midland Company	(312)-634-8100	
Pennington Biomedical Research Center	(225)-763-2500	
George Mason Univ. Nutrition/Food Studies		
National Academy of Sciences	(202)-334-2000	
Cleveland Clinic	(216)444-2200	
Creighton University School of Medicine	(402)-280-2700	
AgNovos Healthcare	(240)-753-6500	
Ludwig Institute for Cancer Research	(212)-450-1500	
MillisporeSigma	(800)-521-8956	
Myco Alliance LLC.		info@mycoalliance.com
Phillips Mushroom Farms	(610)-925-0520	info@phillipsgourmet.com
MycoWorks		info@mycoworks.com
U.S. Department of the Interior Fisheries and Wildlife Resource Group	(970)-247-5332	
The Pigeon Key Foundation & Marine Science Center	(305)-743-5999	
American Fisheries Society	(301)-897-8616	
Reefs to Rivers		flafsstudent@gmail.com
		tractor@ufl.edu
Environmental Defense Fund	(919)-881-2601 NC	
	(303)-440-4901 CO	
	(479)-845-3816 AR	
	(512)478-5161 TX	
	(916)-492-7070 CA	
	(415)-293-6050 CA	
	(202)-387-3500 DC	
	(212)-505-2100 NY	
NOAA	(305)-361-4420	
	(305)-852-7717	
	(305)-809-4700	
	(863)500-3889	
	(321)-255-0212	
	(850)-942-8833	

Entity	Phone	Other
Environmental Defense Fund	(617)-723-2996	
EPA	(800)-241-1754 GA	
	(202)-564-4700 DC	
US Fish and Wildlife Services	(404)-679-4000	
Smithsonian Environmental Research Center		
USGS Headquarters	(703)-648-5953	
USGS Florida	(352)-378-8181	
	(352)392-1861	
	(954)-377-5900	
Southeast Ecological Science Center	(352)-378-8186	
Aquatic Systems	(800)-432-4302	
Tetra Tech Corporate	(626)-351-4664	
West Palm Beach	(561)687-8200	
Tampa	813-620-3389	
Tampa	813-579-5107	
Tallahassee	850-576-6131	
Tallahassee	850-385-9899	
Sarasosa	941-922-3526	
Stuart	772-781-3400	
Orlando	407-839-3955	
Port Saint Lucie	772-878-0072	
Orlando	407-855-3860	
Jacksonville	904-636-6125	
Maitland	321-441-8500	
Hialeah	305-825-2683	
Hollywood	954-308-3511	
Estero	239-390-1467	
Fort Myers	239-768-6600	
Cocoa	321-636-6470	
Cocoa	321- 632-2503	
Cape Coral	239-277-5155	
Clearwater	727-726-8400	
Bartow	863-533-0858	
Boynton Beach	561-735-0482	
Tropical Conservation Institute Florida Center for Analytical Electron Microscopy	305-348-2714	
FIU Department of Earth and Environment	305-348-1930	
FIU Downtown on Brickell	305-348-0148	
Biscane Bay Campus	305-919-5500	
FIU at I-75	954-438-8600	
Florida Atlantic University Harbor Branch Oceanographic Institute	772-242-2400	

Entity	Phone	other
FAU Ocean and Mechanical Engineering	561-297-3430	ome@fau.edu
Dania Beach Research Center	954-924-7000	
MOTE Marine Laboratory & Aquarium	941-388-4441	
Florida Keys Eco-Discovery Center	305-809-4750	
MOTE Boca Grande Outreach Office	941-855-9251	bocagrande@mote.org
MOTE Aquaculture Research Park	941-377-0823	
University of Florida Research and Education Center	407-313-7103	
National Office American Committee for the Weizmann Institute of Science	212-895-7900	info@acwis.org
Bay Area	415-981-4001	bayarea@acwis.org
Florida	954-964-8071	florida@acwis.org
Midwest	312-641-5700	midwest@acwis.org
New York	212-895-7930	newyork@acwis.org
Southern California	424-442-1000	LA@acwis.org
Cosmo Bio USA, Inc.	760-431-4600	info@cosmobiousa.com
Acurian, Inc.	215-323-9000	
CenterWatch	617-948-5100	
Amgen	805-447-1000	
Prometheus Labratories, Inc.	888-423-5227	
AstrogenZenica	800-456-3669	
Biogen Corporate	781-464-2000	
North Carolina	919-993-1100	
DC	202-383-1440	
Ontario	1-905-804-1444	
Buenos Aires Argentina	54-11-5550-8150	
Sao Paulo Brazil	55-11-3568-3400	
International Headquarters Switzerland	41-41-39-21700	
Celene	908-673-9000	
International, Europe, and Middle East Headquarters Switzerland	41-32-729-8500	
Celgene Asia Pacific Singapore	65-6572-5100	
Kite Pharma Headquarters	310-824-9999	
Kite Pharma EU Commercial Headquarters	44-0-208-622-3378	
Kite Pharma EU R&D	31-20-235-2630	
Medpace Ohio	800-730-5779	info@medpace.com
Medpace Central Labs	612-234-8500	
INC Research	919-876-9300	
Prometic Life Sciences Inc. Canada	1-450-781-0116	
Prometic Bioseparations Ltd. UK	44-1223-420-1450	
Protien Technologies Manufacturing Freeport	44-16-2482-1451	
Boul, des Prairies	1-450-781-0115	

Entity	Phone	Other
Prometic BioTherapeutics, Inc.	301-917-6320	
AxoGen	888-296-4361	
AxoGen Operations	386-462-6800	
Johnson & Johnson	732-524-0400	
J&J Life West Coast R&D	858-242-1504	
J&J Life Science Facility Texas	346-772-0300	
J&J Life Science Facility Toronto	647-243-5200	
JLABS @ LabCentral	650-491-9600	
Product Manufacturing & Development Inc.	267-960-3300	
Pharmaceutical Product Decvelopment	910-251-0081	
Evidera MD	301-654-9729	
Evidera Seattle	206-448-7877	
Evidera Harrisburg	717-603-3041	
Evidera San Francisco	415-490-0400	
Evidera Massachussetts	781-761-0146	
Evidera PA	215-641-1942	
Evidera North Carolina	919-380-2000	
Evidera MD	301-795-2600	
Evidera NJ	609-528-8000	
Hamon Research Cottrell Utah	801-255-8796	
Hamon Research Cottrell MN	763-557-7441	
Hamon Research Cottrell Utah	801-255-8796	
Hamon Research Cottrell IN	812-442-7822	
Hamon Research Cottrell Ontario	905-771-0234	
Hamon Research Cottrell Alabama	205-836-0057	
AbbVie Inc. Chicago	800-255-5162	
AbbVie Inc. San Fransisco	650-454-1000	
Novartis Institutes for BioMedical Research Switzerland	41-61-324-11-11	
NIBR Miami	305-341-4800	
NIBR North Carolina	336-387-1000	
NIBR Plantation, FL	888-569-6682	
NIBR Whippany, NJ	973-463-0078	
NIBR East Hanover, NJ	862-778-8300	
NIBR MA	617-577-0285	
NIBR San Carlos, CA	650-622-1500	
NIBR Sarasota, FL	941-927-2313	
NIBR CT	860-521-3316	
NIBR Florham Park, NJ	973-377-7355	
Novartis East Hanover, NJ	888-669-6682	
Novartis Morris Plains, NJ	973-796-2900	
Novartis Yuba City, CA	530-755-1955	
Roche Diagnostics Corporation	317-521-2000	

Entity	Phone	other
Muse Biotechnology	720-480-9235	
The Nestle Institute of Health Sciences	703-905-0208	
Southern Research	205-581-2000	
National Carbon Caption Center	205-670-5068	
Plant Bowen/ Water Research Center Southern Research	770-606-6841	
Advanced Energy & Transportation Technologies	919-282-1050	
Infectious Disease Research Facility Southern Research	301-694-3232	

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