

Shangri La Botanical Gardens and Nature Center Market and Financial Analysis

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Prepared for

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Orange, Texas

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I. Introduction

Shangri La Botanical Gardens and Nature Center consists of a 252 acre parcel located near the center of Orange, Texas, in the southeast corner of the state adjacent to Louisiana. Currently, the facility is operated primarily as an education-oriented nature center for children within Orange County. The owner of the facility, the Nelda C. and H.J. Lutcher Stark Foundation, wishes to make the facility accessible to more children, as well as to the public. Accordingly, the Foundation has embarked on a comprehensive master plan, of which this market and financial analysis is a part.

Development of new buildings, exhibits and other features at Shangri La will allow additional programming for children in Orange County and adjacent areas, enhancing educational opportunities and the quality of the community. The portion of the facility constituting the Nature Center will focus primarily on children in organized school groups. The Botanical Gardens will also be used to some degree by school groups but will be primarily targeted to adult and family attendees from the community and elsewhere. In the discussion below the term “Gardens” is used to refer to all of the elements of Shangri La Botanical Gardens and Nature Center.

The site includes some very appealing features with potential for attracting additional public visitation. These include:

- A large lagoon that includes a wading bird rookery
- A bayou on which Shangri La currently operates a boat tour
- Several components of a display garden that can be refurbished and expanded
- An educational facility that can be enhanced and expanded
- Walking trails for circulation and access to all portions of the site

The master plan calls for substantial enhancement of these features, as well as the construction of a water treatment facility that can serve as an attraction in itself.

In addition the Gardens, due to their location within the City of Orange, can be associated with visitor-serving businesses in the area and provide valuable economic benefits to the community as it expands.

The primary objective of this report is to help the Foundation understand the operational and financial aspects of master plan implementation. Specific objectives include:

- Identify the major markets for the facility and the position of Shangri La within these markets
- Specify the Gardens’ attendance

- Prepare a preliminary operating budget that represents the implantation of the master plan
- Provide recommendations for design and operations that pertain to revenue and other financial considerations

The process by which this report was prepared involved several presentations and discussions of market conditions and operational options with respect to attracting and accommodating public attendees. In that these topics remain under discussion this report is intended to present pertinent materials and suggestions for future consideration as the master plan implementation takes place.

The report begins with a review of market conditions, followed by a discussion of comparable garden facilities in the Southeast and Midwest. Information from these facilities is used to provide guidelines for future Shangri La operations and for the attendance and financial projections that follow.

Next is a discussion of attendance options and specifications for attendance levels that will be used for subsequent projections. Following this is a preliminary staffing plan for the facility and a preliminary operation budget. The report closes with recommendations for facility development and operations that are based on the findings of this research.

II. Market Area Analysis

Demand for Shangri La will be influenced by a number of factors, including but not limited to:

- Population size and demographic trends within the area
- Travel and tourism trends in Texas, Louisiana and the Southeast
- The design and operation of the Gardens – in particular, their orientation to adult visitors with respect to access and price, and the extent of advertising

This section reviews population, travel and other trends that will affect demand. Subsequent sections discuss demand projections in terms of attendance and revenue.

Factors Affecting Demand

Demand for Shangri La will be influenced by a number of factors, some of which are amenable to Gardens' actions, and some of which are largely external. In addition, demand will be strongly influenced by the facility design and program choices, as well as by operations and marketing. This section reviews some of these factors; additional discussion appears in the last section that includes a review of findings and recommendations.

The appeal of the Gardens will be influenced to a substantial degree by factors that affect other public attractions, in particular:

- Population size and growth trends, which particularly affect local and regional demand from both adults and school children
- Demographic characteristics; particularly school-aged children and adults aged 50 and older
- Disposable income; income growth typically relates to increased spending on leisure and educational activities
- Travel costs (gasoline in particular) and traffic congestion, which affect the ability of visitors to travel to the area, and are particularly important for those traveling from 100 or more miles away
- Competition from other leisure, recreation and educational activities

Recent events such as the World Trade Center attack in 2001 and the current warfare in the Middle East also affect demand for public attractions, as do economic conditions in overseas countries. Texas and Louisiana, as two of the United States' most well known and visited states, and also oriented to some degree to foreign travel markets, have been affected by these events, experiencing a decline in visitor flow and revenue over the

past two years. It is likely that these effects are primarily short-term considerations however, with factors such as those above more important in the long term.

This study focuses primarily on the first two factors in the list above for purposes of preparing demand trends. These discussions begin with an overview of important demographic and travel trends that influence all attractions, in particular national and regional trends over which Shangri La or any other individual facility has no effective influence. However, before beginning this overview, it will be useful to examine the primary market segments that Shangri La will probably pursue, and that will be the focus of the market analysis discussion which follows.

Primary Markets

The market segments that Shangri La will target will vary somewhat over time, depending on the level and focus of its development, its draw as a local and visitor destination, visibility and reputation, and choices regarding marketing programs and operational policy. Overall however, the following is a useful segmentation for purposes of discussing demand and the ways by which Shangri La development can be oriented to potential users.

| Segment | Primary Characteristics |
|---------|-------------------------|
|---------|-------------------------|

Interest/Demographic Categories

| | |
|-----------------------------------|--|
| Organized school groups | Visits as part of one-day field trips, sometimes for longer periods as part of educational programs; generally during spring and fall periods; not a strong source of revenue but a primary focus for the Nature Center |
| Families | Primarily middle-aged households; strong interests in education, hands-on experience; many will live within an hour or two of travel time, although travelers (see next) of this type will be important also |
| Travelers | Individuals and households visiting the area either overnight or for the day; often looking for informative and interesting attractions; demand can occur throughout the year due to southern Texas climatic conditions |
| Businesses & associations | Primarily in the local/regional area, interested in locations for meetings and special events; potential for sponsorships |
| Bird and other nature enthusiasts | Most often local/regional residents, but can be from throughout North America and from overseas; interested in specific, perhaps regional aspects of the Gardens, educational programs, special events; empty nest and retired households are an important segment of this group |

Geographic Categories

| | |
|--------------------------|--|
| Local | Households within the immediate area (50 miles), requiring about an hour of travel time; provide paid attendance, memberships and volunteers to help with operations; most likely to be repeat visitors and to respond to requests for donations and other assistance |
| Regional | Households within two or three hours of the facility (125 miles), with day trips possible for this group; many will combine a visit to the Gardens with one or more other activities, such as visiting another attraction or event, outdoor recreation, shopping, visiting friends or relatives, or dining out |
| Out-of-State/ Foreign | Travelers from out of the region, some of who are visiting the U.S. from a foreign country; corporate visitors to the region associated with meetings and other events |

Shangri La planning, facility/program development, and marketing should keep all of these segments in mind, as well as other segments that become significant as development advances. A summary section at the end of this chapter returns to these segments in light of the market research findings.

National and International Travel Trends

A number of trends in the U.S. will affect the demand for the Gardens, particularly demand from travelers from other parts of North America and foreign locations. Overall, many of these trends are very favorable, although they influence the type of facility and programs that will be most appealing.

Demographics

| | |
|------------------------------|--|
| American population is aging | The primary population growth is currently in the 50-59 age range, which increased by 17% between 1998 and 2003, compared to 2.5% on average for other age ranges. This age group is more likely to be empty nesters; only around 20% still have children at home, compared to 75% for those 40-49 years of age. Yet relatively few are retired – only 20%, compared to almost 80% for those 65 years of age or more. The retired population will increase strongly after 2010 (those 65 years of age or greater will increase by 33% by 2020 – three times the rate of the next fastest range.) |
|------------------------------|--|

More dual-earner households

Over 62% of married women are in the workforce in 2003 (compared to 58% in 1990, 50% in 1980 and 40% in 1970), while 78% of married men are in the workforce. With more than one worker, it is more difficult to schedule travel, which often means shorter trips, more frequently. Studies conducted by The Travel Industry Association (TIA) report shorter and leisure-oriented trips taken by married travelers 45 and older now dominate the travel market. Further, short trips (1-2 nights) are now reported to be far more popular than longer trips. Shorter trips tend to be more single-purposed – focused on one or two activities; the most popular consist of shopping, outdoor activities, historical places/museums, beaches or national/state parks.

Increasing incomes for some Americans

Incomes of professional, educated households have been increasing, producing a segment of the population with adequate resources for travel and recreation. Incomes of managerial, professional and technical workers increased nearly 20% in constant dollars over the past decade (1991-2001), while incomes of service, production and other laborers increased just 6%. Workers with a Bachelor's or Master's degree had income growth of 12%, compared to those with a high school diploma of 7%. However, much of the population is not sharing in this income growth at all. The top 20% of households now receive half of all income, with the remaining 80% receiving the other half. This top fifth's share has increased dramatically over the past decade, while four-fifths of households have seen their share of all income decline. While this trend has slowed in recent years, it is not expected to reverse and leaves a smaller segment that can and will continue to travel, but will do so on a more limited basis and be very value-oriented.

Educated population

The American population is becoming increasingly educated; over a quarter (25.6%) of American adults have four or more years of college, compared to 20% in 1990, 17% in 1980 and 11% in 1970. Educated travelers tend to be interested in information-rich activities.

Travel Trends

Shorter vacations, more frequently

North American households are more likely to take long weekend and other relatively short trips; the incidence of extended, multi-destination long-distance travel has been on the decline. More than half of all travel trips in the U.S. are now for 2 days or less, with only two in ten trips lasting a week or more. Thus, a majority of travelers are taking vacations closer to home. Half of Americans in TIA's survey of travelers said they were planning to travel closer to home in 2002. Travel by personal motor vehicle increased significantly in 2002 (3%), while travel by air declined.

| | |
|---|--|
| Meetings travel slows | Travel for meetings, conferences and conventions was on a long-term growth trend throughout the 1990s, associated with the growing US economic activity of the period. Since 2000 however, this segment of business travel has been in serious decline, which will likely extend through at least 2004. Lower airfares for business travel may begin to have some effect on this segment in the coming year. |
| Organized group travel | Organized group travel – by motorcoach, cruise ship or air transportation – had been increasing through the 1990s, however, this growth essentially stopped in 2001 and 2002 (with a 9% decline). This is likely a temporary slowing related to political and economic uncertainty. Long term increases in this segment should continue, as it is highly correlated to the aging of the North American population and increasing incomes. Much of this travel is during summer and is very value-oriented. |
| Seasonality | The preferred leisure travel season is June, July and August when well over a third of leisure travel occurs. Family travel, in particular, is oriented to these three summer months. Spring and Fall travel tend to be somewhat more popular among empty nesters. Meetings/convention travel is more oriented to fall and spring. |
| Travelers want education, packaged experience | The growth in travel and vacation trips that include children has increased the demand for educational experiences. Many analysts have noted a back to basics in the leisure travel market since 2001. This means vacations and travel activities that involve family, nature and America itself. Trips to visit friends and relatives, visiting national and state parks, and increased interest in America’s heritage and culture through historic sites will be the preference. |
| Business and leisure travel are combined more | Travelers are more often extending business trips to include leisure activities. These travelers provide a good market for destinations in or adjacent to major metro areas. Business trips are also more likely to include spouses and children than in the past, (these trips increased 25% between 1994 and 2002, while solo trips declined by over 5%). However, the majority of business trips (74%) are taken by solo travelers. |
| Entertainment increasingly important | Entertainment is an increasingly important component of travel and recreation, and of education as well; travelers and facility users expect very good presentation, interactivity, visual appeal; competition and gaming are very popular. |

| | |
|----------------------------------|---|
| Travel parties and grandparents | Travel parties including grandparents are increasing. These trips may have an educational focus and would not tend to include strenuous activity. |
| Membership programs increasing | Travel associated with membership programs is increasing: RV clubs, senior citizen organizations, membership reward programs (e.g., frequent fliers). Family reunions are a popular reason for travel. |
| International travel in the U.S. | Travel from foreign destinations, like most other segments of travel, had been increasing through the 1990s. However, international travel has been down for the past several years (down 11% between 2000 and 2001), influenced by poor economic performance overseas and the events in September 2001. The most important markets are Canada and Mexico, which send more travelers to the U.S. than any other foreign nations, with 59.6 and 9.6 million visitors, respectively, in 2001. The UK is the top overseas country for inbound travel, with nearly 4.2 million visitors. Japan, Germany, France, South Korea, Brazil, Venezuela, and Italy round out the top ten. These travelers are particularly interested in things that are historic, unique and memorable. International travel is strongly affected by exchange rates. |

The primary pertinence of these factors is discussed in the review section at the end of this chapter.

Demographic Trends

The City of Orange is located in a largely rural location and includes only modest population. Orange County population amounted to about 85,000 in 2000; the City of Orange, with a population of about 18,600, represents about 22% of this amount. A portion of the analysis focus on Orange County, all of which is within close proximity to the City of Orange and which represent the primary geographic target for the Gardens' school programs.

For analysis purposes, we also make use of two regional definitions, one consisting of households within a 50-mile radius and the other households within a 125-mile radius. Households within a 50-mile distance are within an hour's traveling distance to the Gardens, and represent a local area market for public attendees. Most volunteers and many visitors – school children in particular – will come from this region.

The larger 125-mile region represents households that can drive to the Gardens within two or three hours – a feasible distance for a day trip. Although the population within this region is much larger than that for the local area, the longer distance greatly reduces the likelihood of a visit. Both of these regional definitions are used in the section below.

Local Area Population

Total population within the local (50-mile radius) area amounts to 662,000, with Orange County representing about 85,000 of this amount. The largest concentration is in Jefferson County, which includes Beaumont. See Table II-1 and Figure II-1.

**Table II-1
Population, Counties Within 50-Mile Radius, 2000**

| <u>County</u> | <u>Population</u> |
|---------------|-------------------|
| Texas | |
| Orange | 84,966 |
| Newton | 15,072 |
| Jasper | 35,604 |
| Hardin | 48,073 |
| Jefferson | 252,051 |
| Louisiana | |
| Beauregard | 32,986 |
| Calcasieu | 183,572 |
| Cameron | 9,991 |
| Total | 662,315 |

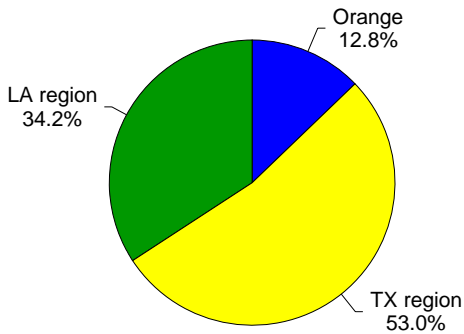
Source: US Census

Over a third of this population is location within Louisiana, in particular in Calcasieu Parish, the location of the City of Lake Charles. While Louisiana has not been a focus for attracting school group attendance to the Gardens, it represents a significant and nearby location for future marketing with respect to public attendees.

**Figure II-1
50-Mile Radius**



**Figure II-2
50-Mile Market Area Population Distribution**



Source: U.S. Census Bureau

Regional Population

Population within a 125 miles of the Gardens is much more substantial, amounting to over 5.6 million. Many of these households are located in the Houston Metropolitan Area, and relatively few are in Louisiana. See Table II-2 and Figure II-3.

Table II-2
Population, Counties Within 125-Mile Radius, 2000

| 125-mile Radius | |
|------------------------|-----------|
| Texas | |
| Orange | 84,966 |
| Newton | 15,072 |
| Jasper | 35,604 |
| Hardin | 48,073 |
| Jefferson | 252,051 |
| Angelina | 80,130 |
| Chambers | 26,031 |
| Galveston | 250,158 |
| Harris | 3,400,578 |
| Liberty | 70,154 |
| Montgomery | 293,768 |
| Nacogdoches | 59,203 |
| Polk | 41,133 |
| Sabine | 10,469 |
| San Augustine | 8,946 |
| San Jacinto | 22,246 |
| Tyler | 20,871 |
| | 4,719,453 |
| Louisiana | |
| Beauregard | 32,986 |
| Calcasieu | 183,572 |
| Cameron | 9,991 |
| Acadia | 58,861 |
| Allen | 25,440 |
| Evangeline | 35,434 |
| Jefferson Davis | 31,435 |
| Lafayette | 190,503 |
| Rapides | 126,337 |
| Sabine | 23,459 |
| St. Landry | 87,700 |
| Vermilion | 53,807 |
| Vernon | 52,531 |
| | 912,056 |
| Total 125-mile | 5,631,509 |

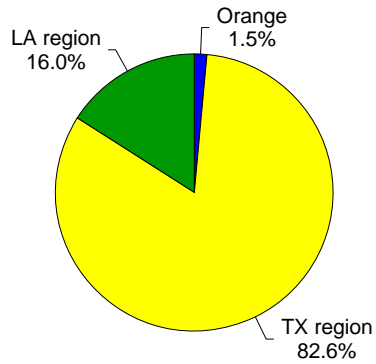
Source: US Census

As the Gardens increase their focus on attracting public attendees, this region will become more important for marketing programs.

**Figure II-3
125-Mile Radius**



**Figure II-4
125-Mile Market Area Population Distribution**



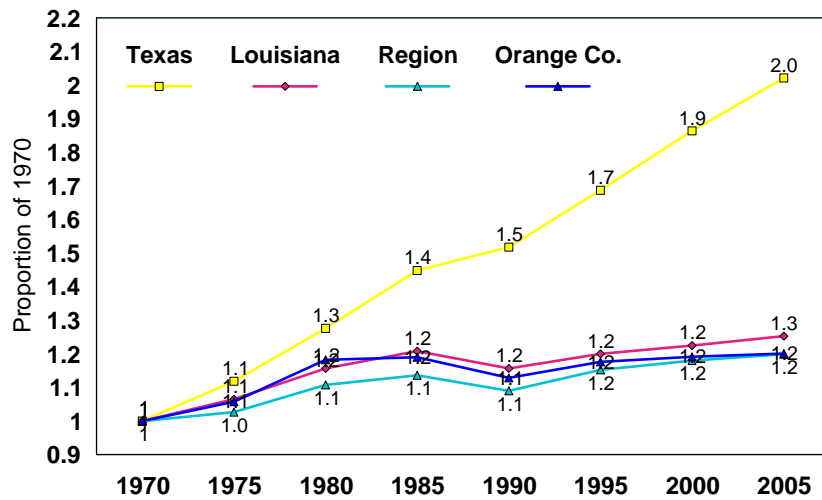
Source: U.S. Census Bureau

Population Trends

Historic population growth in Orange, Orange County and the State of Louisiana has been modest, as apparent from Figure II-5. In comparison, the State of Texas has grown rapidly, expanding nearly two-fold from 1970 to 2000. It is apparent that much of this growth has not occurred in the Southeast portion or the state.

To the extent that the Gardens focus in the future on attracting public attendees from outside the local area, Texas will probably represent a more dynamic and expanding market than will Louisiana, and will probably merit being the initial target.

**Figure II-5
Population Trends and Projections**

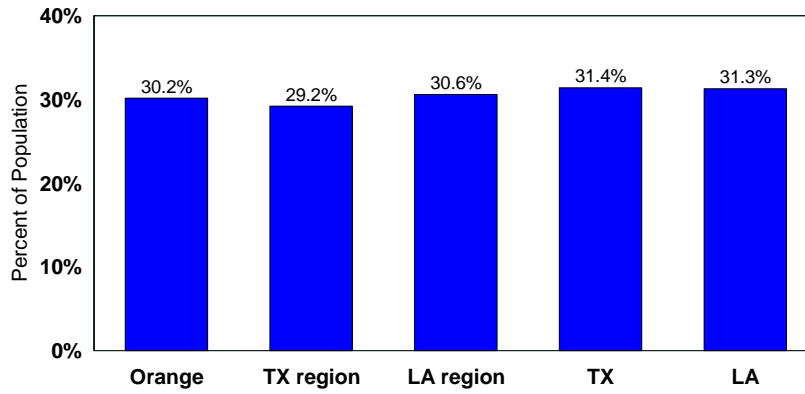


Source: NPA Data Services

Population Characteristics

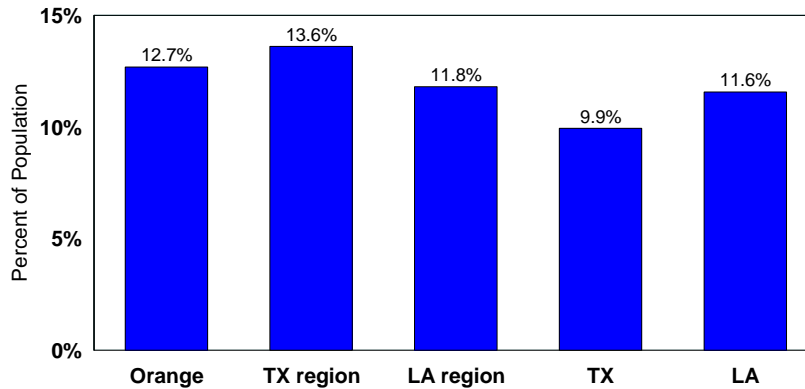
With respect to age, the population of Orange County is somewhat older than the other counties in the region. Figures II-6 and II-7 show the percentage of population that is age 19 or under and 65 and older, respectively, for the Orange County, the local area segments in Texas and Louisiana, and the two states overall. The differences with respect to younger people are not great, but Orange County does show a relatively larger portion of older people. This situation probably relates to the limited employment opportunities at the current time, and the associated out-migration of working age families.

Figure II-6
Age – 19 or Under



Source: U.S. Census Bureau

Figure II-7
Age – 65 +

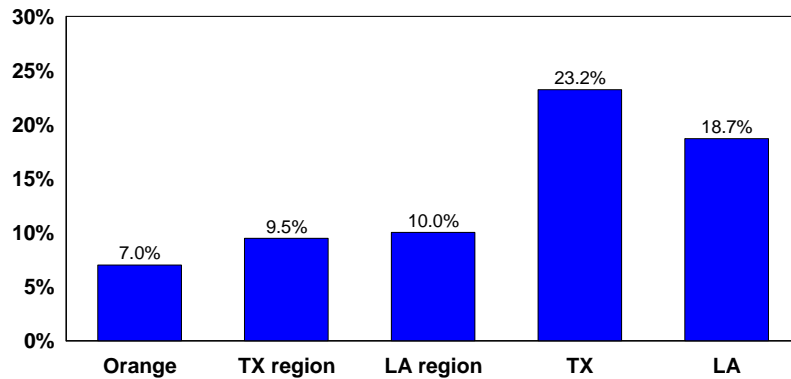


Source: U.S. Census Bureau

Education

Educational achievement in Orange County is noticeably lower than for either state overall; this holds for the community as well as for the remainder of the local area. Again, this is probably associated with the out-migration of working age families, which tend to have more education than people in families that are older.

Figure II-8
Bachelor or Graduate Degree



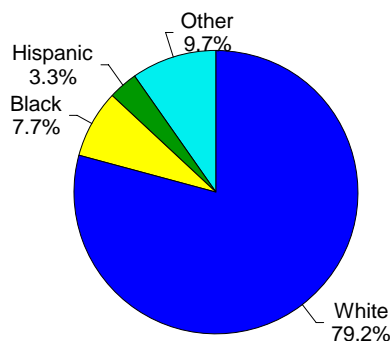
Source: U.S. Census Bureau

Race

Race is an important consideration, to the extent that it relates to cultural variables that can affect exhibits, educational programs and marketing. These considerations can be important as the Gardens expand their operation, seeking to attract additional visitors from the local area, as well as market areas that are more distant.

Racial distribution in Orange County appears in Figure II-9, showing a preponderance of white residents, with the largest other category consisting of "other" races, probably a combination of Asian, Indian and those of mixed race.

Figure II-9
Race Distribution – Orange Co.

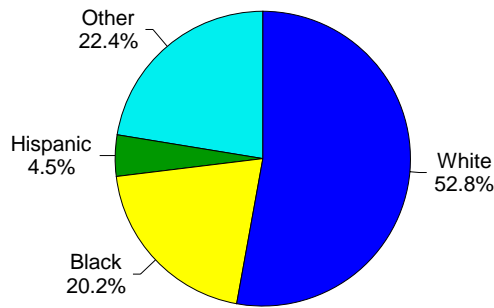


Source: U.S. Census Bureau

The situation within the local area is different, with much more diversity. See Figure II-10. Within the 50-mile region White residents represent somewhat over half, with substantial proportions that are Black and "Other." The region includes relatively few

Hispanic residents. This situation implies that as the Gardens expand into the region, they will encounter a different racial mix than that which characterizes Orange County, suggesting adjustments in marketing and product.

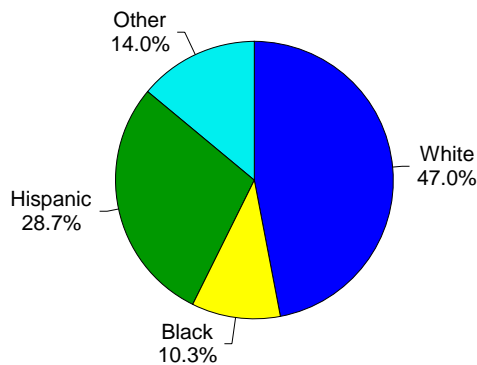
Figure II-10
Race Distribution – Region



Source: U.S. Census Bureau

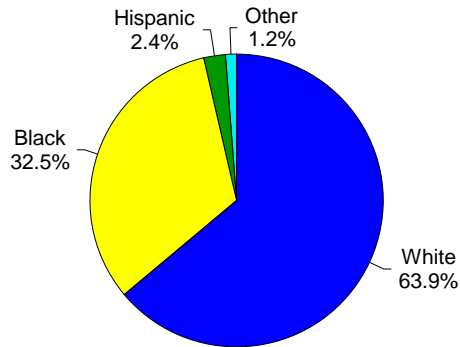
Racial distributions within Texas and Louisiana overall vary still further. See Figures II-11 and II-12. The Texas population is about half white, with a large Hispanic segment and sizable proportions that are Black or “Other.” Louisiana is more substantially white, with most of the remaining population being Black. This situation shows that as the Gardens expand their appeal into the region and the state, they will encourage populations that are increasingly non-white, with substantial variations in minority populations of Blacks, Hispanics, Asians and others.

Figure II-11
Race Distribution – Texas



Source: U.S. Census Bureau

Figure II-12
Race Distribution – Louisiana

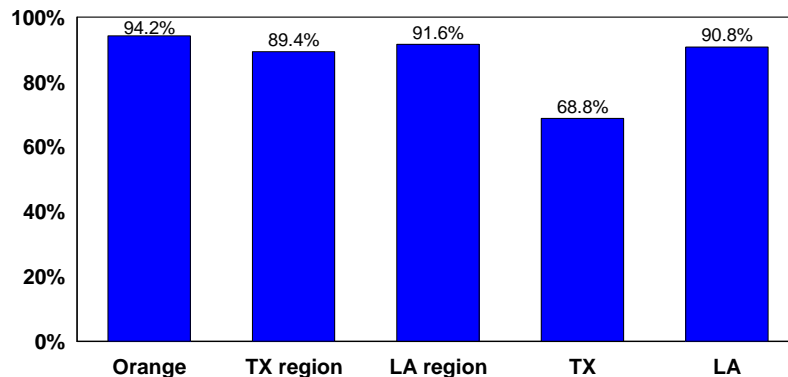


Source: U.S. Census Bureau

Language

The language spoken in market area households is a consideration for exhibits, marketing and communications, in general. As is apparent from Figure II-13, most households in Orange County speak English at home, and this pattern characterizes the local area as well. However, elsewhere in Texas, about a third of households speak another language at home, presumably Spanish in many cases.

Figure II-13
Language – English Only



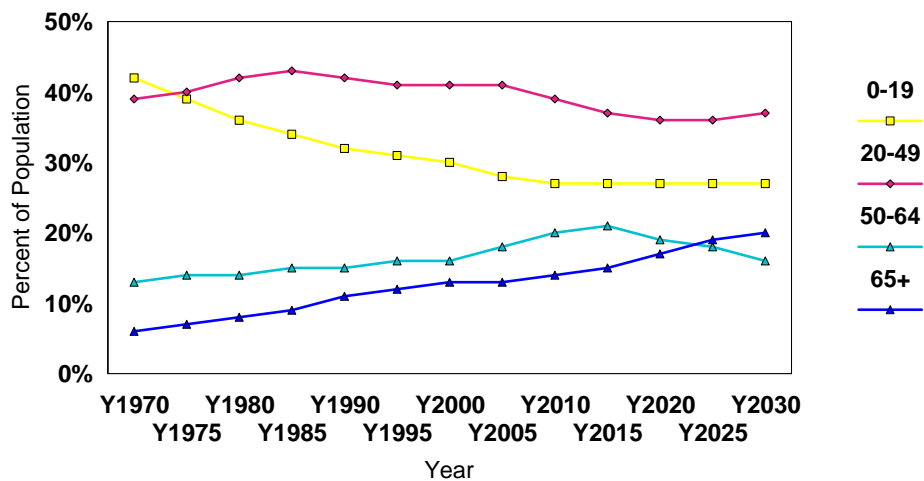
Source: U.S. Census Bureau

Population Age Trends

Anticipating future population trends is useful from a product development perspective, as well as for anticipating educational, marketing and other programs. Age characteristics are a useful means of doing so, and appear in Figure II-14. These figures are for Orange County, and accordingly represent the relatively close-by market. The figure shows the proportion of population in each of four age categories beginning in 1970 and extending to 2030. Please keep in mind that these are projections, and accordingly, subject to possible errors in assumptions and unforeseen circumstances.

It is apparent that younger people, those up to 19 years of age, have steadily declined as a proportion in Orange County and are projected to decline further. While this pattern is not uncommon in the US, where the aging baby boom population affects population dynamics in this manner, the decline here has been fairly steep.

Figure II-14



Source: NPA Data Services

Orange County Age Distribution Trends and Projection

Another remarkable trend is the steadily increasing proportion of those 65 and older, and the decline, after 2010, of those aged 50-64. Those in the prime working years, 20 to 49, have declined to some degree in the past and will continue to do so, but are relatively steady.

Overall, this is a picture of an aging population, with older and retired residents replacing those who are young, with a slowly declining workforce. These changes will affect the Gardens' markets as the facility develops in the future.

Implications

The market trends and demographics suggest several important findings, as follows:

- Population levels in Orange County will probably remain fairly stable in the future, with only limited new growth in local area market size
- The population will age to some degree, with additional empty nest and retired households, and limited or no growth, or perhaps declines, in school age populations
- The closest market outside Orange county is the Beaumont area, which should represent the first distant target for any direct marketing oriented to additional public attendance
- Education in local area markets is modest compared to those that are more distant; focus initial interpretive programming on a wide range of educational capabilities; include more advanced interpretive materials as the facility attracts more visitors from out of the area

Additional interpretations and recommendations appear in the final section of the report.

III. Comparable Facilities

Studying comparable facilities can provide very useful data and insights for facility planning and program development. For this project, a number of such facilities were identified and reviewed.

Selection of Comparable Facilities

An initial review identified a total of 14 facilities in the Southeast or elsewhere, from which limited information was gathered. The list of these facilities, and some of the information collected, appears in the Appendix.

These facilities were selected in light of the following preferences:

- Located in the Southeast or Midwest
- Located in a relatively small community, or in a rural area
- At least 100 acres in size
- Include a body of water
- Offer boat-oriented educational activity
- Offer good educational programming, particularly for school children
- Operated by a not-for-profit organization
- A well established facility and willing to provide facility and operations information

Not all of the facilities selected meet each of these criteria; rather the criteria functioned to provide priorities for facility selection.

After collecting initial information from the 14 facilities initially selected, this list was reduced to eight facilities for more detailed research. These facilities are listed in Table III-1 on the following page.

Most of the facilities selected have been in operation for at least 50 years and are over 100 acres, averaging about 300 acres overall.

Table III-1
Selected Comparable Facilities

| Facility | Location | Opened | Site (ac) |
|---|-------------------|--------|------------|
| Bellingrath Gardens and Home | Theodore AL | 1932 | 65 |
| Bok Sanctuary | Lake Wales FL | 1929 | 250 |
| Corpus Christi Botanical Gardens and Nature Center | Corpus Christi TX | 1996 | 180 |
| Heard Natural Science Museum and Wildlife Sanctuary | McKinney TX | 1967 | 291 |
| Holden Arboretum | Kirtland OH | 1931 | 100 |
| Houston Arboretum and Nature Center | Houston TX | 1951 | 155 |
| Lady Bird Johnson Wildflower Center | Austin TX | 1982 | 179 |
| Powell Gardens | Kansas City MO | 1948 | 915 |
| <i>Average</i> | | | <i>303</i> |
| Shangri La Preserve (for comparison) | Orange TX | | 252 |

Source: Dean Runyan Associates

Attendance and Admission Fees

Annual attendance at many of the facilities is modest, ranging from a low of 40,000 to about 200,000. This range represents facilities of moderate size – larger than those with limited programs and public access, but smaller than the very active facilities, and typically in large metro areas and with attendance of 400,000 or more. The overall average of this group is about 90,000 people per year; this figure includes both gate attendance and attendance by organized school groups.

Admission fees are in place for all but two of these facilities and typically range from \$4 to \$7 for adults. Bellingrath is much higher at \$16.50, and Bok is also notable at \$8. The fact that two facilities with the highest fees also have relatively large attendance illustrates that relatively high fees can be acceptable if the product provides the experience that visitors are looking for.

Table III-2
Attendance and Admission Fees, Selected Comparable Facilities

| Facility | Total Attendance | Admission Fee | Open Hours |
|---|---------------------|--|--|
| Bellingrath Gardens and Home | 215,000 | \$16.50 both \$9.00 home | 9-4 daily |
| Bok Sanctuary | 145,000 | \$8.00 adult \$3 youth | 8-6 daily |
| Corpus Christi Botanical Gardens and Nature Center | 40,000 | \$4.00 adult \$1.50 youth | 9-5 Tue-Sun |
| Heard Natural Science Museum and Wildlife Sanctuary | 60,000 | \$5.00 adult \$3 youth | 9-5 Mon-Sat, 1-5 Sun |
| Holden Arboretum | 58,000 | \$4.00 adult \$2.00 youth | 10-5 Tue-Sun |
| Houston Arboretum and Nature Center | 200,000 | Free | 8:30-6 daily; bldg 10-4 |
| Lady Bird Johnson Wildflower Center | 100,000 | \$3.50 adult \$2 youth | 9-5:30 daily in Apr / 9-5:30 Tue-Sun May- Mar |
| Powell Gardens | 85,000 | \$7.00 adult \$3.00 youth / \$6.00 adult \$2.00 youth | 9-6 daily Apr- Oct / 9-5 daily Nov-Mar |
| <i>Average</i> | <i>90,500</i> | NA | NA |
| Shangri La Preserve (current) | <i>6,012</i> | Free | By appointment only |

Source: Dean Runyan Associates

Staff

Staffing levels vary substantially among these facilities and illustrate the range of operating practices and resources available. Table III-3 shows full- and part-time staff for each facility, plus an average full time equivalent (FTE) calculated assuming that each part-time or seasonal employee is equivalent to 0.5 FTE. Staff FTE for these facilities range from 3 to 81, with an average of 43. In some cases, these facilities benefit from services provided by another entity and this staff or its equivalent is not necessarily included in these figures.

Compared to this average, Shangri La is currently staffed at relatively low levels (17.5 FTE, as appears in Section IV). Projected staff, at 26.5 FTE, still remains lower than most of the facilities listed.

Table III-3
Staff and Other Resources

| Facility | Staff (FTE) | | | Members | Volunteers |
|---|-------------|----------|-----------|---------|------------|
| | Full-Time | PT/Seas. | Ann. Avg. | | |
| Bellingrath Gardens and Home | 60 | 20 | 70 | 500 | 75 |
| Bok Sanctuary | 45 | 25 | 57.5 | 3,200 | 375 |
| Corpus Christi Botanical Gardens and Nature Center | 3 | 2 | 4 | 800 | 40 |
| Heard Natural Science Museum and Wildlife Sanctuary | 18 | 5 | 20.5 | 1,400 | 300 |
| Holden Arboretum | 68 | 26 | 81 | 7,000 | 774 |
| Houston Arboretum and Nature Center | 10 | 0 | 10 | 700 | 150 |
| Lady Bird Johnson Wildflower Center | 40 | 10 | 45 | 21,000 | 350 |
| Powell Gardens | 35 | 35 | 52.5 | 5,000 | 300 |
| Average | 35 | 15 | 43 | 4,950 | 296 |
| Average excluding Lady Bird WC | 34 | 16 | 42 | 2,657 | 288 |
| Shangri La Preserve (proposed) | NA | NA | 26.5 | NA | NA |

Source: Dean Runyan Associates

Other information on volunteers and members appears for each facility, and is useful for establishing objectives for Shangri La in these areas. Membership for gardens and arboreta depends to a substantial degree on the emphasis placed on the membership program, and on the size and character of the region in which the facility is located.

The Lady Bird Johnson Wildflower Center stresses its membership program, is located in Austin, and has national visibility. Its membership, at 21,000, is one of the highest of any garden. Holden arboretum also has a substantial membership. The lowest memberships are for Corpus Christi, a municipal facility, and Houston, a relatively modest facility. The overall average is about 5,000, or about 2,600 if Lady Bird Johnson is excluded from the calculation.

With respect to volunteers, pools range from 40 to nearly 800, and average about 300. As with members, the size of the volunteer pool depends on facility programming and the emphasis on attracting and retaining volunteers.

IV. Attendance

In many cases where a master plan includes projections of attendance, the attendance level(s) are projected on the basis of market conditions, anticipated facility characteristics and programming, and demand factors such as price. Typically, the concern is with maximizing attendance in light of available facility and financial resources.

The situation with respect to this project suggests a different approach, in that Shangri La staff and the Stark Foundation Board of Directors do not prefer fully opening the Gardens to the public at the onset, and pursuing a policy at that time of attracting as many attendees as conditions allow. Accordingly, we prepared several attendance scenarios that represent different levels of public access and which the staff and representatives of the Board discussed, then established a preferred approach. This section reviews these scenarios, then provides additional analysis regarding the attendance targets that were established. The design team recognized at the onset that the attendance scenario that is ultimately established can be a combination of elements of these four scenarios.

Attendance Scenarios

In order to consider how to position the Preserve with respect to target markets, and to discuss the associated design and operation implications, we considered the following four options:

A. Retain existing focus on schools and local area population

- Emphasize school groups; expand school system clientele to some degree
- Develop several special events that provide regular annual attendance opportunities for Orange area residents
- Continue to use docents for managing visitor groups and events

Major challenge: Covering ongoing costs from Stark Foundation funds.

B. Expand regional attendance

- Expand school group attendance and enhance events, as above
- Open gardens to general public on a regular basis
- Charge admission fee
- Employ only modest marketing so as to limit attendance
- Allow space rentals for selected special events such as weddings and corporate meetings

- Establish limited retail operation

Major challenge: Acquiring additional funds necessary to support larger facility and program scope.

C. Become a high volume botanical garden attraction

- Actively encourage school group and public attendance through marketing and public relations
- Charge moderate admission fee
- Provide for regular space rentals for special events
- Establish retail operation
- Offer limited food service

Major challenge: maintaining gardens' quality in the face of relatively heavy access and use.

D. Emphasize high level of service, unique recreational/educational experience and modest attendance

- Actively encourage school group and public attendance through marketing and public relations
- Emphasize particularly unique grounds, exhibits, interpretation, visitor services
- Charge relatively high admission fee
- Provide for regular space rentals for special events
- Establish retail operation

Major challenge: Attracting sufficient attendance willing to pay high admission fee

The primary implications with respect to facility and operations for each scenario are summarized in Tables IV-1 and IV-2. The first table reviews various aspects of each scenario in terms of target audiences, facility design and operation, and sources of operating funds. The second table offers some attendance ranges that correspond to each scenario.

Table IV-1
Shangri La Attendance Scenarios

| Factor | A. Existing focus | B. Regional Attraction | C. High Volume Attraction | D. High Service Attraction |
|-----------------------------|---|---|---|---|
| School group emphasis | High, primarily Orange County | High, Orange County plus region | High, throughout Texas and Louisiana | High, throughout Texas and Louisiana |
| Public admission | Limited to periodic events | Open to public, limited marketing | Open to public, encourage attendance widely | Open to public, encourage attendance widely |
| Adm. fee | No | Yes, modest | Yes, modest | Yes, high |
| Special events | No | Yes, periodically | Yes, regularly | Yes, regularly |
| Staffing | Limited | Moderate | Large | Large |
| Grounds | Use monitored and controlled by docents and staff | Use partially controlled; some hardening | Use partially controlled; widespread hardening | Use partially controlled; some hardening |
| Exhibits | Modest | Modest | Extensive, oriented to high visitor volume | Extensive, particularly high quality |
| Revenue sources | Primarily Stark Foundation | Largely Stark Foundation; additional fee and grant income | Mix of Stark Foundation, fee, grant and donation income | Mix of Stark Foundation, fee, grant and donation income |
| Community economic benefits | Limited, primarily education opportunities | Limited, primarily education opportunities | Extensive, due to high visitor volumes and expenditures | Extensive, due to visitor volumes and high expenditures |

Source: Dean Runyan Associates

Table IV-2
Attendance Range by Scenario

| Component | A. Existing Focus | B. Regional Attraction | C. High Volume Attraction | D. High Service Attraction |
|-------------------|-------------------|------------------------|---------------------------|----------------------------|
| School Groups | 3,500 | 10,000 | 12,000 | 12,000 |
| Local Area Public | 2,500 | 5,000-10,000 | 10,000-20,000 | 5,000-10,000 |
| Visitor Public | NA | 2,000-4,000 | 10,000-40,000 | 10,000-30,000 |
| Total | 6,000 | 17,000-24,000 | 32,000-72,000 | 27,000-52,000 |

Source: Dean Runyan Associates

It was noted that attendance would vary with respect to factors including program selection, facility design, marketing, operating priorities and other factors.

Attendance projection

After discussing these scenarios in light of staff and Board objectives for Shangri La, there was agreement on the following, which represents a combination of several of the scenarios above:

- School groups should remain a strong focus, with anticipated attendance at or near the highest levels projected
- Public attendance will be in the context of special events and guided groups, with self-guided access to Shangri La not allowed
- Highest priority for public attendance should go to residents of the local area
- Visitors would be a secondary target and would be most important if generating operating income became a high priority
- Admission fees would remain modest

On the basis of these priorities, we have selected an annual gate attendance for Shangri La of 40,000 for projection purposes, plus an additional 10,000 children in school groups, the volume specified by Gardens' staff. As is discussed in Section VI, we assume that Shangri La attendance will grow to these levels over a period of time, and only after necessary facility and program enhancements are in place.

Peak and Design Day Volume Estimates

For facility planning purposes, it is useful to estimate on-site attendee volumes, allowing specifications of facility components such as parking, restrooms, retail space and staffing. A projection of daily and peak on-site volumes appears in Table IV-3. For projection purposes, the years 2007 and 2010 are used, with the former representing the first year of

public operation and the second the year by which Shangri La is assumed to reach projected attendance levels.

Table IV-3
Daily and Peak Period Visitation

| | # of Visitors | | # of Vehicles | |
|---|---------------|--------|---------------|------|
| | 2007 | 2010 | 2007 | 2010 |
| Annual Visitation | | | | |
| Annual nonschool visitor projection | 20,000 | 40,000 | | |
| Peak monthly nonschool visitation (20%) | 4,000 | 8,000 | | |
| Annual school group visitation | 4,000 | 10,000 | | |
| Average monthly school group visitation | 800 | 2,400 | | |
| Total annual visitation (nonschool + school) | 24,000 | 52,000 | | |
| Peak Period Daily Nonschool Visitation | | | | |
| Average peak week day | 72 | 145 | 29 | 58 |
| Average peak weekend day | 271 | 542 | 108 | 217 |
| Peak Weekend Day On-Site Nonschool Crowd | | | | |
| Peak Weekend Day On-Site Nonschool Crowd | 76 | 152 | 30 | 61 |
| Peak Weekend Day On-Site School Group Crowd | 0 | 0 | 0 | 0 |
| Peak Weekend Day On-Site Total Crowd | 76 | 152 | 30 | 61 |
| Design Weekend Day On-Site Total Crowd | 91 | 183 | 37 | 73 |
| Peak Week Day On-Site Nonschool Crowd | | | | |
| Peak Week Day On-Site Nonschool Crowd | 20 | 41 | 8 | 16 |
| Peak Week Day On-Site School Group Crowd | 36 | 90 | NA | NA |
| Peak Week Day On-Site Total Crowd | 56 | 131 | 8 | 16 |
| Design Week Day On-Site Total Crowd | 68 | 157 | 10 | 20 |

Notes:

- 1) Proportion annual visitation in peak month 20%
- 2) Proportion weekly visitation on weekend days 60%
- 3) Proportion daily attendance during peak period 75%
- 4) Length of peak period (11 am - 3 pm) 4.00
- 5) Average length of stay (hours) 1.50
- 6) Design day factor 1.20
- 7) Visitors per vehicle (nonschool) 2.50

Does not represent attendance at large special events.

Source: Dean Runyan Associates

This analysis indicates that at 2007 attendance levels, a peak day, a Saturday or Sunday - probably in April or May, will see about 270 public visitors, although no school group visitors, who will visit the facility only on weekdays. Based on a number of assumptions regarding visitor behavior, as specified in the table footnotes, this will result in an average peak crowd of 76 people, primarily during the hours of 11 to 3.

The peak crowd during the week will consist substantially of children in school groups and will amount to 56 people.

At the point that Shangri La achieves its projected attendance in the year 2010, the facility will see about 540 people during a peak weekend day with a peak crowd of about 150 people. This crowd will be associated with about 60 vehicles.

At this time, the peak weekday crowd will amount to about 130 people, 90 of whom are school children in organized groups. The table shows parking requirements for only the public portion of this crowd; school children are assumed to arrive in buses.

The table also shows design day figures for both peak crowds and vehicles. These figures represent reasonable estimates for particularly busy days for which Gardens' facilities should be designed and programmed. In all cases, however, attendance associated with occasional events is not included in these figures; this attendance could exceed the projected amounts by a substantial amount, and should be accommodated with special plans for parking and other services.

V. Preliminary Operating Budget

This section presents a preliminary operating budget for Shangri La, showing anticipated operating costs and revenue, including the annual contribution to operating revenue from Stark Foundation sources. Figures for 2004 through 2012 are included, providing for a comparison with current operations, the opening of the facility to the public in 2007, and anticipated growth to the projected attendance levels thereafter.

These figures are provided for planning purposes and could be substantially different in the future, affected by Gardens' policy, the pace of plan implementation, and any unanticipated factors such as changes in inflation.

Attendance Summary

As discussed previously, attendance is projected to increase from current levels of about 4,000 per year to over 54,000 per year by 2010. A summary of attendance by category for Year 2010 appears in Table V-1. Gate attendance of 40,000 is augmented by student group attendance of 10,000. Additional attendance from education and special event activity brings the total to somewhat over 54,000 per year. A subsequent table shows how attendance is expected to grow from current levels to those projected.

Table V-1
Projected Attendance Summary

| Attendance Category | Current | Percent | Projected 2010 | Percent |
|-------------------------|---------|---------|-------------------|---------|
| Gate Attendance | | | | |
| Nonschool attendance | NA | NA | 40,000 | 74% |
| Organized school groups | NA | NA | 10,000 | 18% |
| Subtotal | 4,512 | 75% | 50,000 | 92% |
| Class attendees | 0 | 0% | 220 | 0% |
| Event attendees | 1,500 | 25% | 4,400 | 8% |
| Total | 6,012 | 100% | 54,400 | 100% |

Notes: Class and event attendees from Tables V-7 and V-8, respectively.
Source: Dean Runyan Associates

Existing Operating Budget

The 2003 operating budget for Shangri La amounted to about \$676, 000; breakouts by category appear in Table V-2. Some grant income may not be included in this amount. About \$445,000 of expenses are for staff, including contract labor costs and employee benefits; this amount represents close to two thirds of the total. Administrative and operating costs represent about 24% and 6% respectively. These amounts are used as a baseline for the budget projections that appear below.

Table V-2
Existing Operating Budget

| <u>Category</u> | <u>Amount</u> | <u>Percent</u> |
|-----------------------------|---------------|----------------|
| Employment Costs | | |
| Salaries/Wages | 297,412 | 44.0% |
| Payroll Taxes, Workers Comp | 20,964 | 3.1% |
| Employee Benefit Programs | 71,604 | 10.6% |
| Contract Labor | 1,151 | 0.2% |
| Exhibitions and Programs | 50,500 | 7.5% |
| Subtotal | 441,631 | 65.4% |
| Administrative Costs | | |
| Insurance | 13,726 | 2.0% |
| Professional Fees | 125,000 | 18.5% |
| Other | 25,720 | 3.8% |
| Subtotal | 164,446 | 24.3% |
| Operating Costs | | |
| Equipment | 10,800 | 1.6% |
| Supplies | 6,600 | 1.0% |
| Utilities | 8,725 | 1.3% |
| Subtotal | 26,125 | 3.9% |
| Depreciation | 43,356 | 6.4% |
| Total | 675,558 | 100.0% |

Source: Shangri La.

Additional costs for Shangri La operations are covered by the Foundation, including administrative functions such as human resources, payroll and various maintenance activities. A breakout of the staffing involved, based on estimates provided by Shangri La

staff, appears in Table V-3. Total staff amounts to 2.75 FTE. No data on the salary and benefit costs of this staff are available. For projection purposes, it is assumed that these functions will continue to be provided by Foundation staff in the future.

Table V-3
Foundation Staff Attributable to Shangri La Operations

| <u>Function</u> | <u>FTE</u> |
|------------------------|------------|
| Payroll/budget | 0.50 |
| Technology/maintenance | 0.25 |
| Human resources | 0.25 |
| Electrician | 0.25 |
| Carpenter | 0.75 |
| Security | 0.25 |
| Custodian | 0.40 |
| Delivery | 0.10 |
| Total | 2.75 |

Note: Estimates from conversation with Gardens staff.
Source: Shangri La

Projected Staffing

A projection of the staff necessary for Shangri La operations was developed in light of data collected from comparable facilities and through conversations with Gardens staff. Staffing at the current time, and at the point of completion of Phase 1, appears in Table V-4. Total staff for 2004 amount to 17.5 FTE, with a staff cost of \$496,500. This amount does not include the cost of staff benefits and employee taxes. This amount is somewhat higher than that which appears in Table V-3 due to several recent additions to Gardens staff.

Table V-4
Projected Staff

| Position | Salary | Current | | Planned Phase 1 | |
|---|----------|--------------|------------------|-----------------|------------------|
| | | FTE | Budget | FTE | Budget |
| Administration | | | | | |
| Executive Director | \$86,000 | 1.00 | \$86,000 | 1.00 | \$86,000 |
| Marketing Director | \$45,000 | 0.00 | \$0 | 0.50 | \$22,500 |
| Adm. Assistant/ Vol. Coordinator | \$35,000 | 1.00 | \$35,000 | 1.00 | \$35,000 |
| Receptionist/Clerk | \$30,000 | 1.00 | \$30,000 | 1.00 | \$30,000 |
| Admissions staff | \$20,000 | 0.00 | \$0 | 0.50 | \$10,000 |
| Subtotal | | 3.00 | \$151,000 | 4.00 | \$183,500 |
| Botanical/Horticultural Exhibits | | | | | |
| Director of Horticulture | \$65,000 | 1.00 | \$65,000 | 1.00 | \$65,000 |
| Grounds Supervisor | \$30,000 | 1.00 | \$30,000 | 1.00 | \$30,000 |
| Greenhouse Manager | \$32,000 | 0.00 | \$0 | 1.00 | \$32,000 |
| Spray Technician | \$45,000 | 0.50 | \$22,500 | 0.50 | \$22,500 |
| Maintenance staff | \$25,000 | 4.00 | \$100,000 | 6.00 | \$150,000 |
| Subtotal | | 6.50 | \$217,500 | 9.50 | \$299,500 |
| Boat Operations | | | | | |
| Staff | \$22,000 | 0.00 | \$0 | 1.00 | \$22,000 |
| Subtotal | | 0.00 | \$0 | 1.00 | \$22,000 |
| Buildings and Security | | | | | |
| Maintenance/Security staff | \$35,000 | 0.00 | \$0 | 2.00 | \$70,000 |
| Building maintenance staff | \$22,000 | 1.00 | \$22,000 | 1.50 | \$33,000 |
| Subtotal | | 1.00 | \$22,000 | 3.50 | \$103,000 |
| Education/Interpretation | | | | | |
| Environmental Education Coordinator | \$40,000 | 1.00 | \$40,000 | 1.00 | \$40,000 |
| Education intern | \$20,000 | 1.00 | \$20,000 | 2.00 | \$40,000 |
| Summer Scholar | \$4,000 | 3.00 | \$12,000 | 3.00 | \$12,000 |
| Shangri La Fellow | \$17,000 | 2.00 | \$34,000 | 2.00 | \$34,000 |
| Subtotal | | 7.00 | \$106,000 | 8.00 | \$126,000 |
| Retail Sales | | | | | |
| Staff | \$25,000 | 0.00 | \$0 | 0.50 | \$12,500 |
| Subtotal | | 0.00 | \$0 | 0.50 | \$12,500 |
| Gardens Total | | 17.50 | \$496,500 | 26.50 | \$746,500 |

Notes:

Salary amounts do not include fringe benefit costs

Budget does not include research, food service and other staff associated with programs that are expressed in 2004 dollars

Amounts expressed in 2004 dollars

Source: Dean Runyan Associates

Projected staff amount to 26.5 FTE, with the primary additions including:

- A part-time marketing director
- Staff for admissions
- A greenhouse manager
- Additional garden maintenance staff
- Staff for boat operations
- Additional building maintenance and security staff
- Additional education staff
- Staff for retail operations

This staffing assumes that Shangri La will make use of volunteer docents for purposes of on-site visitor assistance and interpretation. The number of these individuals that will be necessary in light of projected Gardens visitor growth may be very substantial.

The projected level of staff amounts to 0.11 staff per acre, which compares to an average of 0.32 for all of the gardens selected as comparable facilities, or to 0.12 if two relatively highly staffed gardens – Bellingrath and Holden – are excluded from the calculation.

Preliminary Operating Budget

Projected revenues and operating costs from 2004 through 2012 are based on projected attendance, staff costs, and administrative operating costs, as appears in Table V-5. Revenue from the Stark Foundation has been adjusted so as to produce zero net revenue for the facility.

By 2010, annual operating expenses rise to nearly \$1.5 million from the current \$862,000, with Stark Foundation support increasing to somewhat over \$1.1 million.

Table V-5
Preliminary Operating Budget

| Category | Year | | | | | | | | |
|-----------------------------|-----------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
| Projected attendance | | | | | | | | | |
| Nonschool Attendance | 4,512 | 5,000 | 5,000 | 20,000 | 20,000 | 30,000 | 40,000 | 41,800 | 43,681 |
| Organized School Groups | 1,500 | 1,500 | 1,500 | 4,000 | 6,000 | 8,000 | 10,000 | 10,000 | 10,000 |
| Total | 6,012 | 6,500 | 6,500 | 24,000 | 26,000 | 38,000 | 50,000 | 51,800 | 53,681 |
| Revenue: | | | | | | | | | |
| Admissions: | \$0 | \$0 | \$0 | \$56,016 | \$56,016 | \$93,101 | \$124,135 | \$140,922 | \$147,264 |
| Facility rentals | \$0 | \$0 | \$0 | \$26,600 | \$27,265 | \$27,947 | \$28,645 | \$29,361 | \$30,095 |
| Retail sales | \$0 | \$0 | \$0 | \$40,000 | \$41,000 | \$63,038 | \$86,151 | \$92,279 | \$98,842 |
| Memberships | \$0 | \$0 | \$4,000 | \$8,200 | \$12,608 | \$17,230 | \$22,076 | \$27,154 | \$32,471 |
| Adult education programs | \$0 | \$0 | \$0 | \$13,200 | \$13,530 | \$13,868 | \$14,215 | \$14,570 | \$14,935 |
| Other foundation | \$27,000 | \$27,000 | \$27,000 | \$50,000 | \$51,250 | \$52,531 | \$53,845 | \$55,191 | \$56,570 |
| Stark Foundation | \$835,000 | \$937,544 | \$1,036,116 | \$975,700 | \$1,070,676 | \$1,107,287 | \$1,148,622 | \$1,190,839 | \$1,246,366 |
| Total Revenue | \$862,000 | \$964,544 | \$1,067,116 | \$1,169,716 | \$1,272,344 | \$1,375,002 | \$1,477,689 | \$1,550,317 | \$1,626,544 |

Table V-5
Preliminary Operating Budget (cont.)

| Category | Year | | | | | | | | |
|----------------------|-----------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
| Expenses: | | | | | | | | | |
| Staff | \$496,500 | \$558,035 | \$619,570 | \$681,106 | \$742,641 | \$804,176 | \$865,711 | \$908,997 | \$954,447 |
| Fringe @ 26.5% | \$131,573 | \$147,879 | \$164,186 | \$180,493 | \$196,800 | \$213,107 | \$229,413 | \$240,884 | \$252,928 |
| Administrative costs | \$164,446 | \$184,827 | \$205,208 | \$225,589 | \$245,970 | \$266,351 | \$286,733 | \$301,069 | \$316,123 |
| Operating Costs | \$26,125 | \$29,363 | \$32,601 | \$35,839 | \$39,077 | \$42,314 | \$45,552 | \$47,830 | \$50,221 |
| Depreciation | \$43,356 | \$44,440 | \$45,551 | \$46,690 | \$47,857 | \$49,053 | \$50,280 | \$51,537 | \$52,825 |
| Total Expenses | \$862,000 | \$964,544 | \$1,067,116 | \$1,169,716 | \$1,272,344 | \$1,375,002 | \$1,477,689 | \$1,550,317 | \$1,626,544 |
| Net Revenue | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

Notes:

Does not include research programs or food service

Assumed annual inflation rate: 2.5% (applied to all amounts)

Growth-related annual increase: 2.5% (applied to operations costs that will grow due to growing admissions, including costs for staff, administrative support, education supplies and service contracts.)

Organized school groups admitted at no cost.

Retail sales of \$2 per public visitor, \$0.50 per school child.

Memberships growing at a rate of 100 per year beginning in 2006; annual rate of \$40.

Source: Dean Runyan Associates

In order to prepare these figures, attendance was assumed to remain at approximately current levels through 2005 and 2006, then increasing to 20,000 for the following two years as the facility opens and becomes available to the community, then growing to the projected 40,000 over the next two years. After this time, attendance is projected to increase at the rate of 2.5% per year. Attendance growth may occur more slowly, depending on Shangri La policy, marketing efforts and other factors. In such a case the staffing and other commitments can be adjusted accordingly.

Admission fees for each year appear in Table V-6; the initial adult admission fee is \$5, increasing to \$6 in 2011.

Table V-6
Admissions Fee Revenue

| | Adult | Youth/ Senior | Child 5-11 | Child under 4 | Total/Avg | Attendance | Revenue |
|---------------|--------|------------------|------------|------------------|-----------|------------|-----------|
| Proportion | 70% | 15% | 10% | 5% | 100% | | |
| Admission fee | | | | | | | |
| 2005 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | 5,000 | \$0 |
| 2006 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | 5,000 | \$0 |
| 2007 | \$5.00 | \$3.00 | \$1.00 | \$0.00 | \$4.05 | 20,000 | \$56,016 |
| 2008 | \$5.00 | \$3.00 | \$1.00 | \$0.00 | \$4.05 | 20,000 | \$56,016 |
| 2009 | \$5.50 | \$3.25 | \$1.50 | \$0.00 | \$4.49 | 30,000 | \$93,101 |
| 2010 | \$5.50 | \$3.25 | \$1.50 | \$0.00 | \$4.49 | 40,000 | \$124,135 |
| 2011 | \$6.00 | \$3.50 | \$1.50 | \$0.00 | \$4.88 | 41,800 | \$140,922 |
| 2012 | \$6.00 | \$3.50 | \$1.50 | \$0.00 | \$4.88 | 43,681 | \$147,264 |

Notes:

| | |
|-------------------------------|------|
| Total open days/yr | 308 |
| Free days/yr | 12 |
| Percent | 4% |
| Adjusted percent | 8% |
| Percent collected gate | 92% |
| Percent attendance members | 25% |
| Annual attendance growth rate | 4.5% |

Organized school groups not included in these amounts.

Members admitted at no cost

Assumes one free day each month that is approximately twice as busy as a typical day.

Attendance projections assume well-supported and effective marketing program.

Source: Dean Runyan Associates

School group admissions are assumed to remain stable until 2007, at which time they will increase by 2,000 students per year to reach the projected total of 10,000 by 2010. No admission fees are charged for these students.

Various additional revenue is projected for facility rentals for meetings and events, as appears in Table V-7. The bulk of this revenue is associated with weddings, including photo sessions, wedding ceremonies and ceremonies combined with receptions. Anticipated rental fees range from \$100 for permission to take photos to \$1,000 for a ceremony and reception. Photo sessions, which are typically fairly brief and involve primarily family members and close friends, can take place during open hours. Weddings, however, which require seating and other equipment, are best scheduled for after hours. The projections assume relatively few wedding events, amounting to one photo session a week, one wedding every two weeks, and four receptions a year. Additional events could be scheduled if demand is sufficient and if appropriate with respect to Gardens' operating principles. All equipment, such as seating, tables and sound, is assumed to be provided by caterers or rental operations. A higher rental fee could be charged if the Gardens provide this equipment.

Table V-7
Projected Meeting and Event Revenue

| Factor | Photo Session | Wedding Only | Wedding + Reception | Corp/Other Meeting | Total |
|--------------------------|---------------|--------------|---------------------|--------------------|----------|
| Events/week (ann. Avg.) | 1.0 | 0.5 | 0.1 | 0.2 | 1.7 |
| Events/year | 52 | 26 | 4 | 8 | 90 |
| Fee/event | \$100 | \$400 | \$1,000 | \$200 | |
| Total fee revenue | \$5,200 | \$10,400 | \$4,000 | \$1,600 | \$21,200 |
| Attendees/event | 20 | 100 | 150 | 20 | |
| Total attendees | 1,040 | 2,600 | 600 | 160 | 4,400 |
| Catering charge/attendee | \$0 | \$0 | \$60 | \$0 | |
| Total catering charges | \$0 | \$0 | \$36,000 | \$0 | |
| Catering commission | 15% | 15% | 15% | 15% | |
| Catering revenue | \$0 | \$0 | \$5,400 | \$0 | \$5,400 |
| Total revenue | \$5,200 | \$10,400 | \$9,400 | \$1,600 | \$26,600 |

Source: Dean Runyan Associates

The master plan anticipates events such as weddings by providing for several locations where these events could take place, as well as kitchen facilities for catering functions, access to parking, and other necessary attributes. These facilities are relatively simple, however, and provide for only limited capacity for such events. Additional capacity could be developed in the future, if desired.

Some additional revenue is projected from corporate meetings and other events such as reunions, community events and training sessions. Eight rentals each year are projected at an average rate of \$200.

Additional revenue will be available from adult and professional training, including gardening, horticulture and other classes offered to the public and specialized training for landscape and other professionals. These classes are in addition to the classes currently offered to teachers during the summer.

A total of eight classes for the public are projected, with 20 participants each, with a fee of \$40. Typically, these would be for two hours and would be staffed by Gardens staff, perhaps assisted by contractors. Professional courses would be longer, three hours, probably staffed by Gardens staff, and would cost \$60. If good demand develops for these classes, the fee could be raised. Revenue from these classes, including the teacher education classes currently offered, appears in Table V-8.

Table V-8
Education Program Revenue

| Factor | Public | Professional | Teachers | Total |
|--------------------|---------|--------------|----------|----------|
| Classes/yr | 8 | 4 | 8 | 20 |
| Participants/class | 20 | 15 | 20 | |
| Total participants | 160 | 60 | 160 | 220 |
| Fee/participant | \$40 | \$60 | \$20 | |
| Class revenue | \$6,400 | \$3,600 | \$3,200 | \$13,200 |
| Hours/class | 2 | 2 | 4 | |
| Staff factor | 2 | 3 | 3 | |
| Total hours | 32 | 24 | 96 | 152 |
| Education FTE | 0.02 | 0.01 | 0.05 | 0.07 |

Source: Dean Runyan Associates

Other assumptions and conventions regarding the operating budget projections include:

- Inflation is assumed at a rate of 2.5% per year; all budget figures are adjusted accordingly
- Additional growth of 2.5% per year is added in some cases to account for anticipated increases in attendance and the associated revenues and costs
- Staffing and the associated costs are assumed to achieve projected levels by 2010 and “ramp up” linearly from 2005 through 2009
- Current foundation revenue for the existing teacher education program is shown as a revenue category; revenue from foundations for this and other programs is assumed to increase to \$50,000 per year in 2007, and increase at the rate of inflation thereafter
- A membership program is assumed, beginning with 100 members in 2006 and increasing 100 per year thereafter; annual membership fee is \$40
- Retail sales of \$2 per public attendee are assumed, and \$0.50 per student
- Employee and tax expenses of 26.5% are added to projected employee wages; this amount is consistent with existing fringe costs
- Administrative and operating costs are projected as a fixed proportion of staff cost, based on 2003 budget figures
- Depreciation increases from current levels at the rate of inflation.
- Stark Foundation contributions to operations, in the form of staff and materials, are assumed to continue throughout the budget period

VI. Summary of Findings and Recommendations

The Gardens' current focus on school children and occasional special events for the public allows it to focus on educational facilities and programming, with little concern for marketing to the public and to accommodating public visitors. In the future, however, to the extent that Shangri La focuses on attracting the public, a number of additional factors become important. Several important recommendations are associated with the preliminary operating budget and its accompanying tables that appear in Section V. These include:

- Open Shangri La to the public and build public attendance to 40,000 people per year
- Charge an admission fee
- Offer space rentals for a variety of special events and meetings
- Offer educational programming to the public for a fee
- Establish a membership program

While each of these attributes is common for North American public gardens, they would represent a change at Shangri La. Implementation of these changes can take place incrementally, with initial changes taking place by 2007 at the time of the Gardens' opening and additional changes made as Gardens' attendance builds.

Attractive Features

With respect to building public attendance, understanding the Shangri La features and attributes that are particularly appealing to the public is important for purposes of facility development, interpretation and marketing. While many aspect of Shangri La are appealing, the following are those that merit particular emphasis:

- Lagoon and birds
- Bayou, including boat tours
- Display gardens
- Water treatment technology and exhibits

Enhancement and interpretation of all of these features is included in the master plan. Additional attention may be important as attracting the public becomes a higher priority.

Additional attention to services for the public, such as parking, retail and food, will be necessary.

Branding

Establishing a theme and image for Shangri La will facilitate marketing. This branding then becomes the framework for marketing and communication. Existing Shangri La attributes that could be the basis of such a brand include birds, water and plants; a notable architectural feature could serve in this regard as well, if one is included in construction plans. Examples from other facilities include Powell Gardens, which uses an abstract flower symbol, and the tower at the Bok Sanctuary.

Operational Efficiency

Designing and operating the facility with cost efficiency in mind will become increasingly important as attendance grows and the operation becomes more complex. Shangri La can consider a number of approaches in this regard:

- Combine admission and retail sales functions in order to facilitate shared staffing during periods of limited demand
- Consider contracting for certain services for which staff are difficult to utilize effectively; examples include building maintenance, security, tree maintenance and lawn mowing; certain services may be best contracted as well, such as marketing and fundraising
- Standardize locations to be used for special events; make event packages available that are easy to staff and operate

Opportunities for expansion of the local area school-age market will be limited. Expand this market by increasing the geographic focus. Expand overall Gardens attendance and activity level by attracting older residents from the local area and by enhancing the appeal for tourists.

Work towards opening the facility for self-guided access by the public. This is the common operational procedure for nearly all public gardens, including all of those studied as part of this project, and allows the most efficient operation with respect to staff and volunteer usage.

Bird viewing opportunities

The lagoon and its bird population is one of the most unique and appealing attributes of Shangri La. Allowing public view of this location will be important for building public attendance. To the extent possible Shangri La should provide good opportunities for visitors to view this area, particularly during the spring season when bird activity is greatest. In addition, the Gardens can investigate the use of remotely controlled cameras (“bird cams”) that can allow unobtrusive bird viewing at all times of the year.

Water Treatment

Treatment of the lagoon's water is a particularly notable feature, one that has been incorporated into the area at the center of visitor circulation. While technical attributes such as this are not typically emphasized by public gardens, Shangri La can use it for educational purposes and as a very unique feature. This is an example of a feature that can help the Gardens gain regional and national recognition.

Appendix

A. Preliminary Comparable Facility Review

The following are the facilities included for a preliminary analysis focusing on site characteristics, attendance levels, admission fees and open hours.

| Facility | Location | Opened | Site (ac) | Comments |
|---|-------------------|--------|------------|---|
| Rural/Small Town Facilities | | | | |
| Armaund Bayou Nature Center | Houston TX | 1974 | 2,500 | Focused on bayou as well as prairie restoration; has historic farm |
| Bluebonnet Swamp Nature Center | Baton Rouge LA | 1987 | 101 | Natural science education orientation; near moderate size community |
| Corpus Christi Botanical Gardens and Nature Center | Corpus Christi TX | 1996 | 180 | Garden plus natural area, moderate size urban; kids camps |
| Heard Natural Science Museum and Wildlife Sanctuary | McKinney TX | 1967 | 291 | Natural science center with modest garden, animals; rural but rapidly growing area; extensive education program |
| Holden Arboretum | Kirtland OH | 1931 | 100 | Near urban, extensive activity schedule |
| Powell Gardens | Kansas City MO | 1948 | 915 | Developed gardens plus natural area, rural location; good rental facilities |
| <i>Average</i> | | | <i>681</i> | |
| Other Facilities | | | | |
| Bellingrath Gardens and Home | Theodore AL | 1932 | 65 | Previous estate garden, rural location; includes river cruises |
| Bok Sanctuary | Lake Wales FL | 1929 | 250 | Previous estate garden, Olmsted design, rural location |
| Dallas Arboretum and Botanical Garden | Dallas TX | 1974 | 66 | Urban garden in a nearby market area; was estate, on water |
| Fort Worth Botanic Garden | Fort Worth TX | 1934 | 109 | Urban garden in a nearby market area; active education program |
| Houston Arboretum and Nature Center | Houston TX | 1951 | 155 | Portion of city park; trails, discovery center; active school programs |
| Lady Bird Johnson Wildflower Center | Austin TX | 1982 | 179 | Near city, active development program; education programs including landscape restoration |
| Memphis Botanic Garden | Memphis TN | 1964 | 96 | Urban, active education program |
| San Antonio Botanical Garden | San Antonio TX | 1980 | 33 | City center, active event schedule |
| <i>Average</i> | | | <i>119</i> | |

Source: Dean Runyan Associates

| Facility | Total Attendance | Admission Fee | Open Hours |
|---|------------------|---|---|
| Rural/Small Town Facilities | | | |
| Armaund Bayou Nature Center | 30,800 | \$3.00 adult, \$1 youth | 9-5 Tue-Sat, 12-5 Sun |
| Bluebonnet Swamp Nature Center | 35,000 | \$3.00 adult, \$2 youth | 9-5 Tue-Sat, 12-5 Sun |
| Corpus Christi Botanical Gardens and Nature Center | (??) | \$4.00 adult \$1.50 youth | 9-5 Tue-Sun |
| Heard Natural Science Museum and Wildlife Sanctuary | 60,000 | \$5.00 adult \$3 youth | 9-5 Mon-Sat, 1-5 Sun |
| Holden Arboretum | 58,000 | \$4.00 adult \$2.00 youth | 10-5 Tue-Sun |
| Powell Gardens | 85,000 | \$7.00 adult \$3.00 youth /\$6.00 adult \$2.00 youth | 9-6 daily Apr-Oct / 9-5 daily Nov-Mar |
| <i>Average</i> | <i>53,760</i> | | |
| Other Facilities | | | |
| Bellingrath Gardens and Home | 215,000 | \$16.50 both \$9.00 home | 9-4 daily |
| Bok Sanctuary | 145,000 | \$8.00 adult \$3 youth | 8-6 daily |
| Dallas Arboretum and Botanical Garden | 300,000 | \$7.00 adult \$4 youth | 10-5 daily |
| Fort Worth Botanic Garden | 700,000 est. | free | 8am-dusk daily |
| Houston Arboretum and Nature Center | 230,000 | Arboretum free; \$3 per child for groups | 8:30-6 daily; bldg 10-4 |
| Lady Bird Johnson Wildflower Center | 100,000 | \$3.50 adult \$2 youth | 9-5:30 daily in Apr / 9-5:30 Tue-Sun May- Mar |
| Memphis Botanic Garden | 130,000 | \$4.00 adult \$3.00 youth | 9-6 Mon-Sat, 11-6 Sun Mar-Oct / 9-4:30 Mon-Sat, 11-4:30 Sun Nov-Feb |
| San Antonio Botanical Garden | 84,500 | \$4.00 adult \$1 youth | 9-5 daily |
| <i>Average</i> | <i>172,071</i> | | |

Source: Dean Runyan Associates

B. Volunteer and Membership Projections

This appendix reviews volunteer pool and membership characteristics for the selection of comparable garden facilities, and provides a simple projection of volunteers and members that may be useful for future Gardens' planning.

The following table reviews the number of volunteers and members for each facility and also provides a calculation of "capture" within each garden's primary market area. These figures appear as "Members per 1,000 Residents" and "Volunteers per 1,000 Residents" in the table. These figures vary widely on the basis of facility emphasis on attracting volunteers and building membership and on the extent to which individuals in either category live outside the primary market area. Nonetheless, the findings provide some useful perspective.

Average membership per 1,000 residents is somewhat below eight, or about five if the two particularly high value facilities are included in the calculation. The volunteer ratio is 0.67 for all facilities, or 0.3 if the same two facilities are excluded.

| Facility | Staff (FTE) | Members | Volunteers | Staff/ Acre | Members/ 1,000 Resid | Volunteers/ 1,000 Resid |
|---|----------------|---------|------------|----------------|-------------------------|----------------------------|
| Bellingrath Gardens and Home | 70.0 | 500 | 75 | 1.08 | 1.25 | 0.19 |
| Bok Sanctuary | 57.5 | 3,200 | 375 | 0.23 | 6.27 | 0.73 |
| Corpus Christi Botanical Gardens and Nature Center | 4.0 | 800 | 40 | 0.02 | 2.10 | 0.11 |
| Heard Natural Science Museum and Wildlife Sanctuary | 20.5 | 1,400 | 300 | 0.07 | 2.34 | 0.50 |
| Holden Arboretum | 81.0 | 7,000 | 774 | 0.81 | 30.58 | 3.38 |
| Houston Arboretum and Nature Center | 10.0 | 700 | 150 | 0.06 | 0.15 | 0.03 |
| Lady Bird Johnson Wildflower Center | 45.0 | 21,000 | 350 | 0.25 | 16.80 | 0.28 |
| Powell Gardens | 52.5 | 5,000 | 300 | 0.06 | 2.82 | 0.17 |
| Average | 42.6 | 4,950 | 296 | 0.32 | 7.79 | 0.67 |
| Average excl. Bellingrath, Holden | 31.6 | 5,350 | 253 | 0.12 | 5.08 | 0.30 |

Source: Dean Runyan Associates

The following are the market area definitions and the 2000 population figures used for this analysis .

| Facility | Population (000) | | |
|---|------------------|--------------------|------------|
| | Local Area | MSA/County | State |
| Bellingrath Gardens and Home | 399,747 | Mobile Cty | 4,447,100 |
| Bok Sanctuary | 510,458 | Polk Cty | 15,982,378 |
| Corpus Christi Botanical Gardens and Nature Center | 380,783 | Corpus Christi MSA | 20,851,820 |
| Heard Natural Science Museum and Wildlife Sanctuary | 597,147 | Collin Cty | 20,851,820 |
| Holden Arboretum | 228,878 | Lake Cty | 11,353,140 |
| Houston Arboretum and Nature Center | 4,669,571 | Houston CMSA | 20,851,820 |
| Lady Bird Johnson Wildflower Center | 1,249,763 | Austin MSA | 20,851,820 |
| Powell Gardens | 1,776,062 | Kansas City MSA | 5,595,211 |

Source: Dean Runyan Associates

If one uses the average ratios for members and volunteers, applied to the current population of Orange County (85,000), the resulting figures are 660 members and 57 volunteers.