Desert Discovery Center – Operating Plan

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Prepared for:

Desert Discovery Center Scottsdale

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EXECUTIVE SUMMARY

BUSINESS PLAN FOR THE DESERT DISCOVERY CENTER

This report presents a business plan for Desert Discovery Center (DDC) to be located adjacent to the McDowell Sonoran Preserve Gateway in Scottsdale, Arizona. The DDC business plan reflects the 2017 DDC concept, operating concept, proposed operating partnerships, site and architectural plans and concepts, Exhibition Concept Design, project scale and target capital cost and the relationship of DDC to its site and the overall McDowell Sonoran Preserve. The full design analyses and concepts are presented under separate cover, and are the specific project concept that this business plan is based on. This business plan also reflects input received from the DDC design team and Desert Discovery Center Scottsdale (DDCS), the not-for-profit organization that is leading the planning for and fundraising the 501(c)(3) organization, charged with developing the plans for DDCS and raising support and funding for its successful development.

The research and analysis undertaken in preparing this DDC business plan were based on the following tasks:

- Evaluate, from a market and operating perspective, the site and facility concepts;
- Analyze the resident and tourist markets available to support DDC;
- Research the experience of other desert and arid place interpretive centers for their operating experiences and practices, and their success strategies;
- Analyze the attendance potential of DDC as currently planned;
- Estimate the operational revenue potential of the DDC concept as planned given its attendance potential and operating plan;
- Prepare a personnel plan and pro-forma operating budgets commensurate with DDC's operating opportunity, the physical and exhibit plans and to support DDC's success and fulfillment of its mission and objectives;
- For all baseline pricing, revenue and operating factors, unless otherwise noted, amounts are inflated from 2017 value of the dollar to 2021 estimated future value to reflect the planned opening date in October 2021. Certain factors such as personnel wages and fringe & benefits have been increased at higher rates to reflect current market conditions.
- Identify the appropriate amounts of non-operational revenues to be targeted to support planned operations, achieve operating success and fulfill DDC mission and objectives understanding that virtually all not-for-profit conservation and education institutions raise funds through contributions, grants, gifts, non-cash goods and

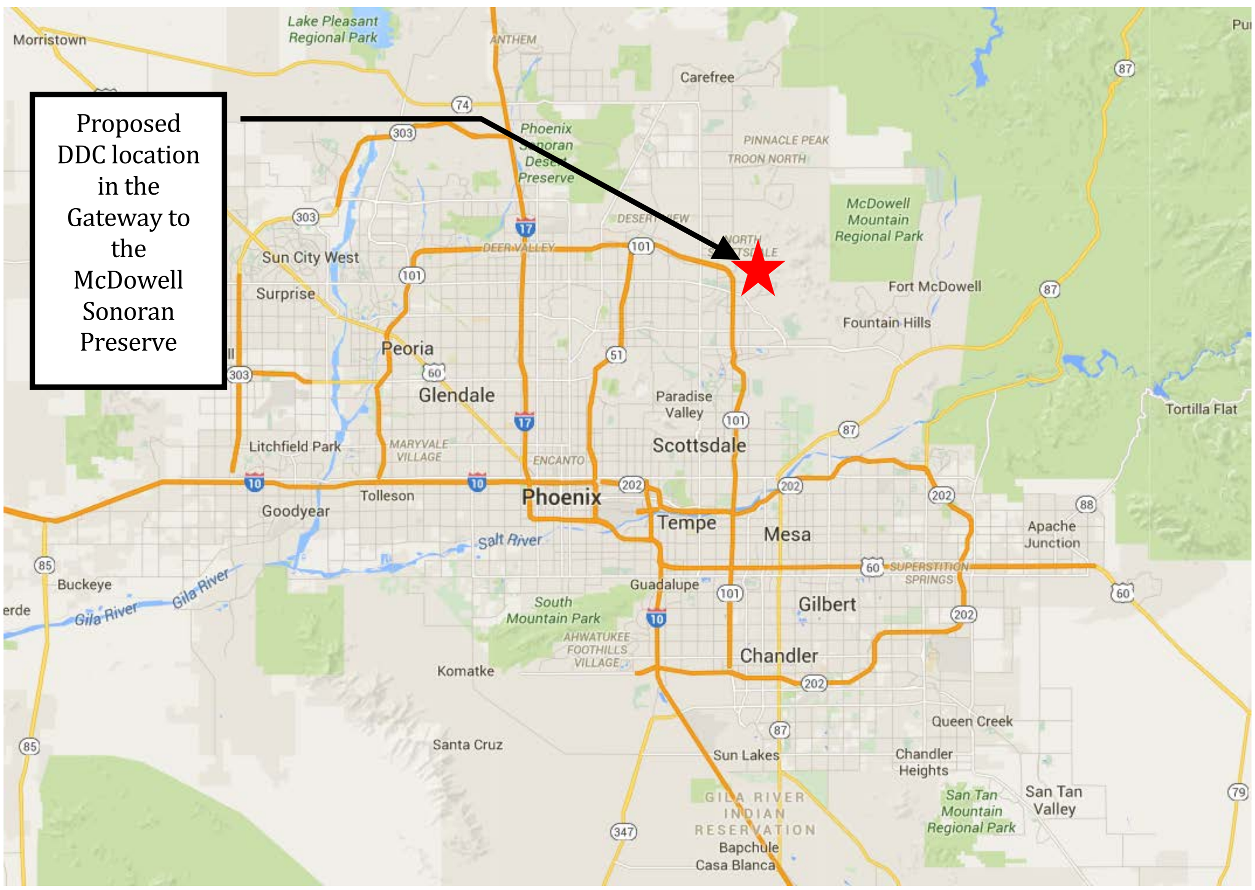
services and other contributed revenues. Estimates of non-operational revenue have been limited to the extent required. Higher amounts will be sought.

- Summarize marketing considerations for DDC.

DDC Location and Site

The Desert Discovery Center (DDC) will be located at the McDowell Sonoran Preserve Gateway at the intersection of Thompson Peak Parkway and Bell Road, about one mile from Exit 14 (Bell Road) on State Route 101, a major limited-access loop road connecting Scottsdale to the rest of the metro area. As such, the site will be easily accessible by vehicle to residents from the Phoenix metro area, as well as visitors from outside the region that may be less familiar with the area. See **Figure 1** below.

Figure 1
Regional Accessibility in Phoenix Metropolitan Area



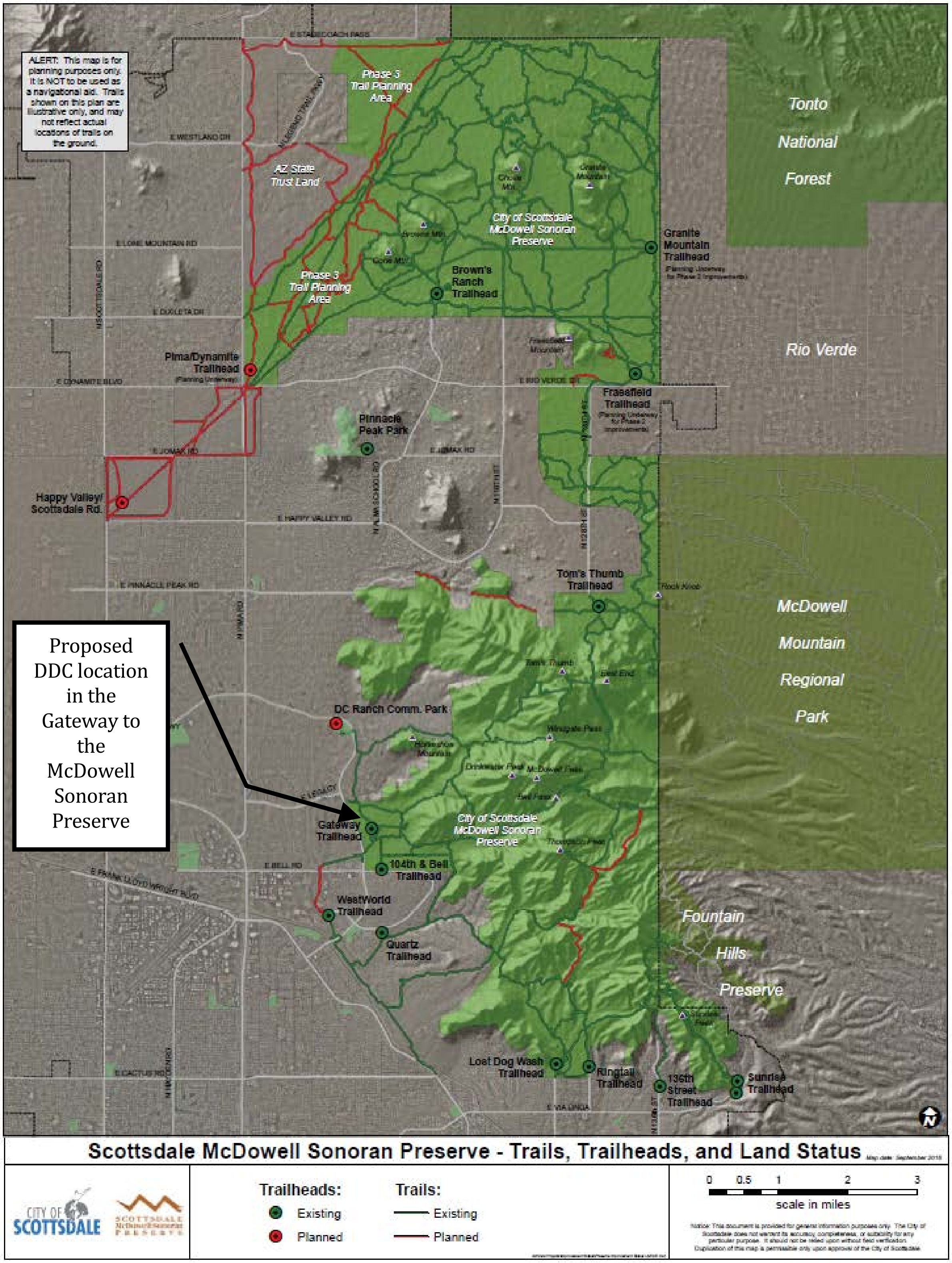
Note: Red star shows location of the planned DDC site
Source: GoogleMaps

Site size and quality, as well as adjacent uses are supportive of the development of DDC. The primary adjacency of DDC is the McDowell Sonoran Preserve, a 30,580-acre preserve, which will be the central interpretive theme for DDC. Trail use since the establishment of the Preserve has been increasing, with an estimated 700,000 uses at 9 trailheads in 2016. Trail users include both visitors to the area and residents who use the trails for hiking, trail running, and biking. DDC will be located at the McDowell Sonoran Preserve Gateway Trailhead. The Gateway is the principle public access point and largest trailhead for the preserve, with an estimated 210,000 uses from this trail head in 2016. The DDC site at the Gateway Trailhead is situated at the foot of the mountains, with direct views of the McDowell Mountains in one direction and views over the Phoenix urban area in the other. This will provide a dramatic contrast of views between natural desert and urban environments.

DDC's site at the McDowell Sonoran Preserve Gateway will be an important aspect of its accessibility and visibility and will increase public awareness of the facility. This location will foster fulfillment of DDC's education and conservation mission. **Figure 2** presents a map of the McDowell Sonoran Preserve.

Residential uses lie to the west and south of the site, across Thompson Peak Parkway and Bell Road, respectively. A mix of uses is located to the north. Overall, the highly accessible location and the dramatic site at the edge of the McDowell Sonoran Preserve provide the DDC with site characteristics that will support operating success and the opportunity to fulfill its mission.

Figure 2
Map of McDowell Sonoran Preserve Lands and Trails



Source: City of Scottsdale, September 2016

Desert Discovery Center Concept

Scottsdale's Desert Discovery Center (DDC) is envisioned as an interpretive, education and research center intended to complement the McDowell Sonoran Preserve experience and be a focal point for understanding human interaction with arid environments.

Ownership and Governance

The City of Scottsdale owns the land, and will own DDC's buildings and infrastructure. It is envisioned that a private operator will be under contract to run the facility on a daily basis, providing programs, experiential exhibits, volunteers, and staff. This model for a public/private partnership is used to run facilities such as Western Spirit: Scottsdale's Museum of the West.

Desert Discovery Center Scottsdale, Inc. is the 501(c)(3) nonprofit organization established for the purpose of planning and possibly operating DDC. The DDC plan has been advanced in the last year in its design, planned visitor experience, partnerships, and operating approach. Arizona State University (ASU)'s Global Drylands Institute will have facilities at DDC and will share in creating programs and educational experiences for visitors.

The DDC facility conceptual design has been advanced by the City of Scottsdale's architect Swaback Partners, and by DDCS' visitor experience designer, Thinc Design. ASU's Global Drylands Institute will have facilities at DDC and will share in creating programs and educational experiences for visitors. This business plan reflects these and other partnerships and plans as detailed in this report, as well as in separate design and planning documents.

DDC will offer a unique setting and visitor experience, encompassing an indoor-outdoor setting with views framed to enjoy the natural environment, as well as connections to the McDowell Sonoran Trail System. Exhibits and programs will explore geological origins, biodiversity and connectivity, water and its role in sustaining life, humans living sustainably in arid places, and many other related topics with the McDowell Sonoran Preserve being the lens for the visitor experience.

Total square footage of the campus is estimated to be 126,000 square feet (SF) of which 47,600 SF will be under roof conditioned space and the remainder will be unconditioned space under roof, canopy or open air. Further, there will be additional non-programmed areas, pedestrian circulation, plantings, etc. Exhibits are planned for 30,900 gross square feet (GSF) in both indoor and outdoor areas. ASU's Global Drylands Institute will occupy 10,500 Gross SF of which 9,000 gross SF will be under roof conditioned space. An off-site Administration Building of 5,400 is also planned.

There are currently 381 parking spaces at the Gateway site which serve Gateway Trailhead users. The adjacent DDC will also have dedicated parking. At this time an additional 163 parking space are planned to be developed in conjunction with the DDC. While there may be opportunities for "shared parking" with the Gateway's parking, such sharing could only occur once DDC is open and there is proof of additional parking capacity from Gateway designated parking spaces. This operating plan does not include such shared parking opportunities. There may also be the opportunity for valet parking on-site and within the designated parking footprint by using valet parking techniques in a designated valet parking area during the busiest periods.

A parking management plan will be developed for DDC in conjunction with the Gateway, program partners with off-site parking at an "overflow" lot and other parking strategies. This overflow parking will be at the site of the off-site DDC administration building. Off-site parking will be used for staff and volunteers during busy periods; for buses and large vehicles; for visitors on high attendance days; and for attendees of evening events. It is estimated that 180 or more spaces will be needed at the overflow lot co-located with the off-site DDC administration building. The operating plan includes staff for shuttle bus operations.

Resident Market Characteristics

The overall resident market area for DDC is defined as the Phoenix Metropolitan Area, which encompasses Maricopa and Pinal Counties, extending to about 75 miles away from the planned site. The resident market area population is projected to increase between 2016 and 2021 by 7.8 percent, from 4.6 million to 4.9 million. This growth trend will increase the size of the markets available to DDC.

The demographic characteristics of the resident market areas include moderately high household-income levels, a similar age profile to the United States as a whole, and a large population of school-age children. In all, there were an estimated 822,000 school age children in 2016 in the resident market area, a number that is projected to increase by 5.4 percent, to approximately 866,000 by 2021. The median household income in the overall resident market area is somewhat higher than those of the State of Arizona, but about the same as that in the United States as a whole. While this indicates that a significant number of households can afford to visit a conservation and education destination such as DDC, care should be taken in planning ticket price ranges to be affordable to all economic levels in the resident market areas.

Also indicative of the resident market potential to visit DDC was resident's relatively high level of engagement in active, leisure, and educational activities; on the whole, residents of the primary market area were more likely than other parts of the resident market area, the State of Arizona, and the United States as a whole to participate in activities like walking for exercise and visiting a museum, indicating that they will have a higher propensity to visit a destination like DDC. Overall, these population and income level data, especially in the primary market area, are positive indicators for potential resident market visitation to DDC.

Tourist Market Characteristics

As a major conservation and education destination, DDC has the potential to draw visitation from tourists in Scottsdale, as well as tourists staying in other locations throughout Central Arizona. The tourist market segments for the proposed DDC include overnight visitors in both paid and non-paid accommodations, seasonal residents, day trip visitors originating from within Arizona, as well as overnight visitors in other parts of Arizona, and international overnight visitors.

Overall, the market for tourism in Arizona has experienced continual growth and change in recent years. In 2015, Arizona welcomed an estimated 36.4 million domestic and 5.7 million international overnight visitors, generating substantial visitor spending and economic impact on the state. A large concentration of this impact is in Central Arizona – the Phoenix Metropolitan Area – which welcomed an estimated 22.1 million visitors in 2015.

Scottsdale has long been an important tourism destination in Central Arizona, known for its luxury tourist amenities, as well as rich desert scenery. Overall, there are an estimated 2.8 million overnight visitors and 4.4 million day visitors to Scottsdale in a typical year. Among overnight visitors, an estimated 1.9 million are domestic and international hotel visitors; 390,000 are estimated to be travelers in other paid accommodations; 348,000 are estimated to be visitors staying with friends and relatives; and, 159,000 are estimated to be visitors in seasonal homes. The estimated 4.4 million day trip visitors are made up of 4.1 million estimated domestic day trippers and 280,000 estimated international day trip visitors who stay overnight in other parts of Central Arizona.

Change and growth in the tourist market in Scottsdale is in part due to increasing visitor volumes, but also due to changes in visitor interests and increasing interest in cultural activities, family activities, and outdoor recreation. The trend in the tourism industry emphasizes that travelers seek authenticity in their travels, especially in natural settings. The addition of DDC will add accessibility to the desert for tourists who do not know how or are otherwise reluctant to enter the desert environment without preparation or interpretation. Further, DDC will diversify and enhance Scottsdale's tourism offerings with its outdoors and desert focus. As a high-profile destination, the offerings at DDC will be important to the tourism economy and quality of life for the local community.

Competitive Context

The Phoenix Metropolitan Area, which includes Scottsdale, offers many popular attractions, professional sports teams, major shopping malls, outdoor recreation, and a substantial accommodations base. In addition, there are a number of cultural and nature based destinations, including museums, parks, cultural and educational attractions, and historic sites.

Attendance at the top tourist attractions in Phoenix Metropolitan Area ranges up to 1.3 million at the Phoenix Zoo, which has the largest number of visitors among the profiled attractions. There are five cultural/nature based destinations that draw an estimated 200,000 to 450,000 visitors annually, including the World Wildlife Zoo and Aquarium, Desert Botanical Garden, Arizona Science Center, the Heard Museum, and Phoenix Art Museum. Ticket prices at local facilities vary greatly, from $2.00 at some of the smaller venues to $39.99 at the Wildlife World Zoo, with the most popular attractions generally charging between $10.00 and $20.00 for adult admission.

As the population in the Phoenix Metropolitan Area grows, so does the context for competitive leisure activities in the area. New attractions in the area include the South Mountain Environmental Education Center in Phoenix, the SEALIFE Arizona Aquarium in Tempe, and the OdySea Aquarium in Scottsdale. Recreation parks and mixed-use destinations provide additional infrastructure for visitors and residents alike. Further, annual sporting and cultural events in Scottsdale draw a large number of visitors, generating demand for attractions and activities, as well as tourism infrastructure.

The context of competitive attractions and leisure activities in the Phoenix Metropolitan Area in general and Scottsdale in particular is active and growing; however, for a metropolitan area of the size and growth of Phoenix, there are few cultural and nature based destinations that achieve high levels of attendance, indicating room to grow within the market. The proposed high-quality educational and cultural experience to be offered at the DDC will be a welcome addition to the market. Ticket prices for the proposed DDC will be set in line with other attractions in the area and the unique offerings at the DDC will be emphasized in order to differentiate the organization from other competitive attractions in the area.

Conservation and Education Destination Case Studies

To inform the DDC plan, case studies of five national conservation and education destinations have been prepared. While there are no exactly comparable facilities to DDC, the case studies the detailed analyses identified the following success factors for facilities of this type.

- Staying true to the mission of the facility.
- Image-able, unique setting that is well-located for accessibility.
- Design that creates a sense of immersion in the natural environment.
- Outstanding facility that highlights its setting and interpretive programming. Newer facilities are “green” and/or LEED certified.
- Exciting, changing exhibits that bring in new and returning audiences.
- Special events and festivals that appeal to a wide demographic.
- Strong educational programs for adults, children, families, and school groups.
- Competitive ticket pricing.

- Retail, food service and other guest services that allow visitors to spend more time and dollars at the facility and enhance the overall experience.
- Aggressive marketing that promotes the facility, its exhibits and special programming.
- Public/private partnerships that allow for membership and donor opportunities.
- Appropriate staffing and the extensive involvement of volunteers.
- Cost controls and careful operational planning.

Attendance Potential

Based on the market research and analysis undertaken and the planned high-quality visitor experience, a preliminary range of attendance potential for DDC has been established. Stabilized attendance levels are typically achieved in the third or fourth year after opening. Attendance potential at DDC in a stable year (Year 3) is estimated at 228,000 to 385,000, with a mid-range estimate of 306,000.

In addition to visitors to the interpretive areas, it is anticipated that there will be considerable regular use of the non-paid components of DDC such as the café and retail shop, and the free entry campus areas by local residents and Scottsdale tourists. This use will often be in conjunction with hiking and other use of the overall McDowell Sonoran Preserve.

Attendance is expected to be somewhat higher in early years of operation due to local excitement about the project; a 20 percent attendance surge is estimated in Year One and a 10 percent attendance surge is in year two. Attendance will be highest during the November through April period. This seasonality will affect use of on-site parking resources. The DDC development plan includes parking sufficient for many days of the year, but for busier periods on-site parking will be supplemented with a DDC off-site parking lot co-located with the DDC administration building. A parking shuttle will be provided during high attendance periods when staff, volunteers, and some visitors would need to park off-site, and for evening events as needed. This attendance potential analysis reflects a competitive ticket pricing policy and aggressive marketing of DDC. This estimate of attendance potential represents a range of market response, but it also reflects a high-quality program and interpretive focus.

Revenue Potential

DDC, as do virtually all cultural, conservation, and education destinations, will generate revenues from a wide variety of sources including operational revenues from tickets, retail, food service, facility rentals and so forth; from memberships; and from an array of non-operational revenue sources such as interest from the planned $6.3 million operating reserve fund, fund raising events, grants, gifts, contributions, contributions in-kind, bequests and so forth. These many revenue sources are needed to meet the institutions operating costs and to contribute to future facility re-investment and capital maintenance. The revenue plan as described is achievable if the full DDC facility and interpretive plan is implemented; a successful governance structure and organization is established; and, the quality of operations is as described in these early plans.

In this business plan, DDC has $4.6 million in operational revenue potential in a stable year in 2017 value of the dollar. A targeted $1.7 million in annual, current dollar non-operational revenues is targeted for a stable year of operations. This amount would fully cover operating expenditures including the planned capital reserve fund. Therefore, DDC operational revenues have been estimated to be about 73 percent of total revenues, with the remaining 27 percent from non-visitor related revenue sources. This is a favorable ratio of operational and non-operational revenues sources. DDCS plans to will seek larger amounts to fund additional programs and activities, enhance its market position, build its endowment and capital reserves, and to fund capital improvements.

Operating Costs

The DDC staffing profile for the project includes 55 full-time year-round employees, 36 part-time employees, and 14 seasonal employees, for a total of 76.5 full-time equivalent positions. The total payroll, including fringe and benefits, for DDC is estimated at $3.6 million. Paid staffing will be supplemented with volunteers. Total operating costs, including personnel, budgeted expenditures for administration, marketing, exhibits, programs, utilities, maintenance, etc., as well as capital reserves, is estimated at approximately $6.3 million in a stable year and in current dollar value.

Operating Potential Summary

Based on the analysis in this report, DDC has the potential to operate successfully over time, if the assumptions regarding quality of facility development, operations, and annual fundraising are met. This project will derive substantial income from tickets, retail, food service, facility rentals, memberships and programs; however, active and successful fundraising is vital to sustain DDC financially. According to this plan, in the current value of the dollar in a stable year, operating expenses are planned at $6.3 million annually. In this scenario, DDC earns $4.6 million – about 72 percent of the revenues needed to support the facility's operating costs. This is a strong rate for a successful, well-run facility of this scale and type, and reflects the outstanding site, the attractive facility plan, programming partners, and the organizational profile and expense budgets as outlined herein.

In addition to DDC's substantial capacity to generate operational revenues, DDC like virtually all not-for-profit institutions of its type, will need to secure non-operational revenues to sustain operations. The non-operational revenues target has been set only at the level needed to cover the operating expenses of the plan. The non-operational revenues assumed in this plan are well within the experience of other major conservation and education destinations nationally and in the Phoenix Metro Area. In reality, DDC will set higher targets for non-operational revenues in order to expand programs, build endowment, reinvest in the facility and increase financial reserves to mitigate any variances from operational revenue plans. A directed set of fundraising and giving programs will help to accomplish this goal.

There is a $6.3 million (current dollar) cash operating reserve planned as part of the project's initial capital cost that will be available for any contingencies, as well as to provide funding should fundamental shifts in the organization's structure be necessary to reach a new equilibrium between revenue sources and operating costs. The amount of the cash operating reserve is equal to a full year's operating budget.

The operating profile of the facility is similar to many of the comparable institutions, whose operating strategies have been used in preparing the operating plan. Many projects of this type experience early year surges in attendance. This pattern has been included in this plan, and the operating plan is based on stable year performance. Diversified and creative sources of revenue and sound fiscal management will assist DDC to sustain its operations and provide a valuable resource for conservation, education and quality of life in Scottsdale and surrounding areas.

Section I
INTRODUCTION AND ASSUMPTIONS

This report presents the business plan for the Desert Discovery Center (DDC) to be located at the McDowell Sonoran Preserve Gateway in Scottsdale, Arizona. Desert Discovery Center is the DDC's working title. The DDC business plan reflects the DDC concept, interpretive plans, architectural concept, project scale and target capital cost and relationship of DDC to its site and the overall McDowell Sonoran Preserve. The full design analyses and concepts by Swaback Partners are presented under separate cover, and the Exhibition Concept Design prepared by Thinc is also presented under separate cover. These are the specific project concepts that are the basis of this business plan. The conceptual project development costs prepared by Desert Discovery Center Scottsdale, Inc.[1] (DDCS) are also presented separately. The business plan also reflects input received from the design team and DDCS.

The research and analysis undertaken in preparing this DDC business plan includes:

- Review of DDC objectives and concepts.
- Presentation and discussions of the site plan, architectural concept, planned visitor amenities, approach to transportation and parking, and planned visitor experience. The inclusion of partnership with Arizona State University's Global Drylands Institute (GDI) on-site is included in the operating plan.
- Review of previous analyses and studies of the proposed DDC including primary market research that indicated resident and tourist market support for the planned experience at that time.
- Analysis of the resident and tourist market available to support DDC.
- Evaluation, from a market and operating perspective, of the site and facility concepts.
- Research and prepare case studies of regional and national education and conservation destinations that served families as well as adult parties and groups.
- The current plan is for DDC is to be owned by the City of Scottsdale and operated by a not-for-profit partner; assumed to be an outgrowth of DDCS.

[1] Desert Discovery Center Scottsdale (DDCS) is the not-for-profit organization that is leading the planning for and fundraising the 501(c)(3) organization charged with developing the plans for DDCS and raising support and funding for its successful development.

- Analysis of the attendance potential of DDC as currently planned. Research market opportunities for particular audience segments
- Research appropriate earned revenue and operations factors.
- Estimate of the Operational Revenue potential of DDC as planned given its attendance potential and operating plan.
- Prepare a personnel plan and pro-forma operating budgets commensurate with DDC's operating opportunity and to support DDC's success and fulfillment of its mission and objectives.
- Identify the appropriate amounts of Non-Operational Revenues to be targeted to support planned operations, achieve operating success and fulfill DDC mission and objectives.

The DDC design team and DDCS staff and Board of Directors provided input and direction on an ongoing basis, and this business plan reflects their substantial input and review. In turn, the design process was informed by the ongoing research, analyses, findings and recommendations of the business planning process.

This business plan reflects DDCS' Mission, operating intent, project definition and the latest concept 2017 DDC design, building program of spaces, Exhibition Concept Design and operating concept along with current market information.

Study Assumptions

The following assumptions have been made in preparing this report. This study is qualified in its entirety by the following.

1. The analyses and operating plan developed in this report assume the following. The size and design of DDC will be appropriate to its market potential, and will serve to create a high-quality, stimulating conservation and education destination with broad-based audience appeal to the resident and tourist markets; and will have a distinctive image as described herein. DDC will be competently and effectively managed. An appropriate promotional campaign for DDC will be developed and implemented. This program will be targeted to prime resident and visitor markets. The admission prices for the facility will be consistent with the educational and entertainment value offered.
2. There will be no physical constraints to impede visitors to the facility, such as major construction activity. Changes in economic and social conditions due to events including, but not limited to, economic recessions, major environmental problems or disasters, issues on nearby or adjacent properties etc. that would negatively affect

operations and visitation may affect the results of the findings in this study, including operating potential estimates.

3. Every reasonable effort has been made in order that the data contained in this study reflect the most accurate and timely information possible and it is believed to be reliable. This study is based on estimates, assumptions and other information developed by ConsultEcon, Inc., from its independent research efforts, general knowledge of the industry, and consultations with the client group. No responsibility is assumed for inaccuracies in reporting by the client, its agents and representatives, or any other data source used in the preparation of this study. No warranty or representation is made that any of the projected values or results contained in this study will actually be achieved. There will usually be differences between forecasted or projected results and actual results because events and circumstances usually do not occur as expected. Other factors not considered in the study may influence actual results.
4. Possession of this report does not carry with it the right of publication. This report will be presented to third parties in its entirety or through the Executive Summary. This report may not be used for any purpose other than that for which it was prepared, and is expressly for the exclusive use of DDCS and the City of Scottsdale.
5. The research and analyses contained in this report reflect the conceptual DDC design plan and conceptual visitor experience plan as advanced to date, as well as the operating plans contained herein. Substantial further refinement of the overall project in these areas will occur moving forward. This will include refinement of the design elements, exhibits and planned programs; additional planning for on-site programming, and earned revenue aspects of DDC; governance and operating relationship with the City of Scottsdale; forming and formalizing operating and programmatic partnerships with Arizona State University, McDowell-Sonoran Conservancy and possibly other conservation, education and programming partners; fundraising plans and formalized relationships with governmental and private sector funding partners; and other necessary planning and contractual processes. As these advancements in DDC's development process occur, the economic analyses and business plans contained herein will be verified and refined as needed.
6. Outputs of computer models used in this report are rounded. These outputs may therefore slightly affect totals and summaries. This report was originally prepared in January through July of 2017. It represents data available at that time.

Section II
SITE EVALUATION

This section reviews the proposed Desert Discovery Center (DDC) site from a market perspective. Essential aspects of the market potential of a conservation and education destination are its location, accessibility, visibility, adjacent uses, site size and quality and the experiences available at the site. Following is a summary of these factors as they relate to DDC.

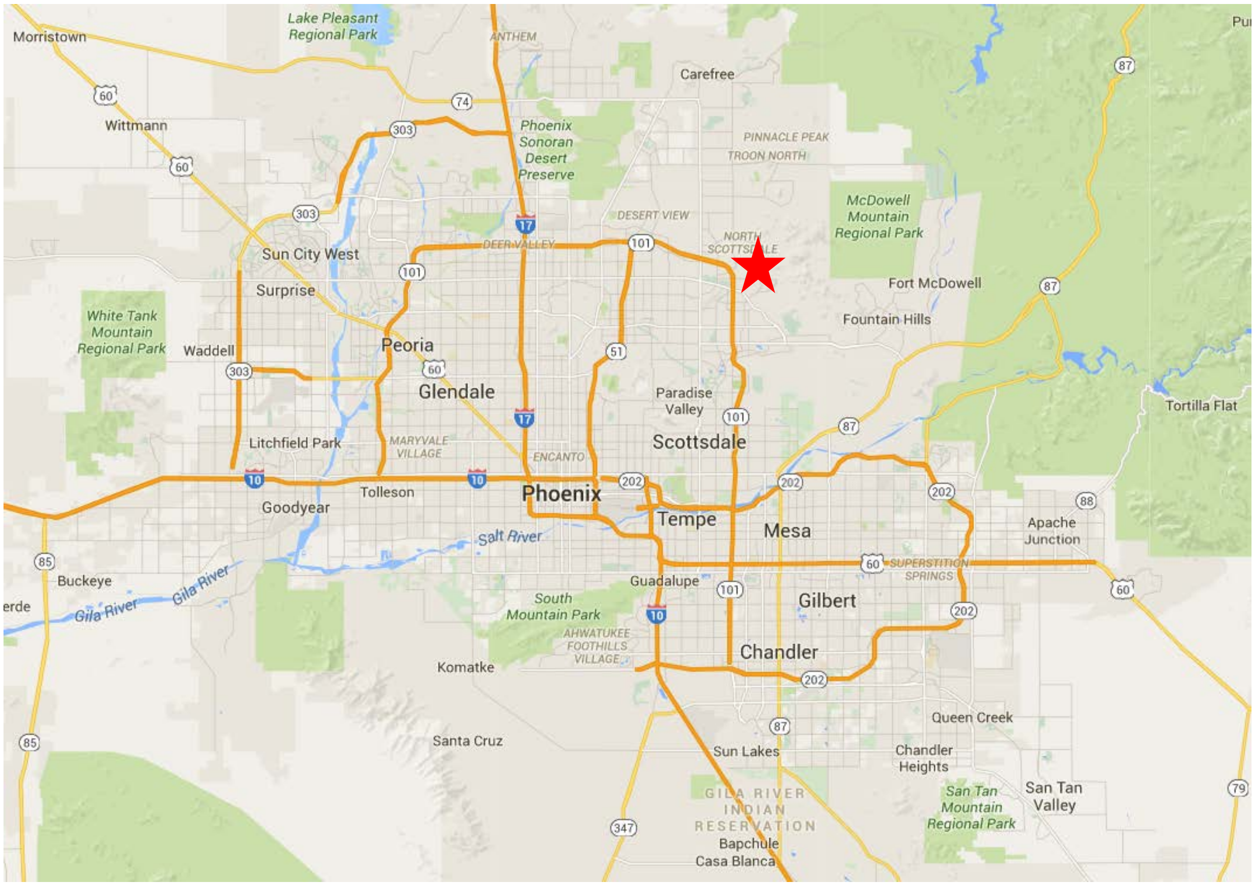
Regional Context

DDC will be located in Scottsdale, a city in the Phoenix Metropolitan Area in central Arizona. Scottsdale currently has a population of approximately 231,800. The estimated 2016 metropolitan area population in the "Valley of the Sun" is 4.58 million people, with projected population of 4.94 million by 2021. [2]

Figure II-1 is a street map of the Phoenix region. The Phoenix metro area is served by major highways running east-west and north-south through the middle of Phoenix, Interstate 10 and Interstate 17, as well as near concentric highways composed of Loop Routes 101, 202 and 303. The red star shows the planned location of DDC at McDowell Sonoran Preserve. This site has easy accessibility within Scottsdale and the overall metro area. In particular, ring highway 101 provides highway access to all areas of the metro area and from the interstate highway system.

[2] Estimated 2016 population; source: ESRI

Figure II-1
Regional Accessibility in Phoenix Metropolitan Area



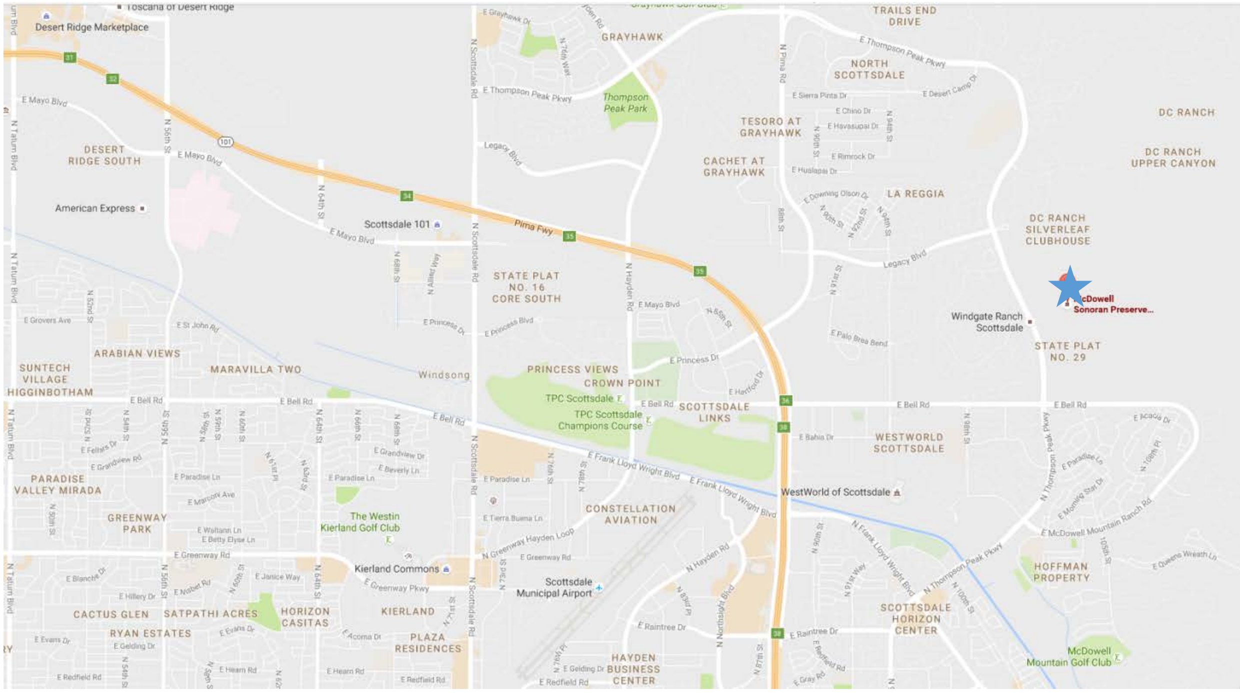
Note: Red star shows location of the planned DDC site
Source: GoogleMaps

Location

Figure II-2 provides a street map of the Scottsdale area. The planned DDC site is situated northeast of the intersection of Thompson Peak Parkway and Bell Rd. The intersection is approximately 1 mile from Exit 14 (Bell Rd.) on Route 101, the major north-south limited access thoroughfare to and through Scottsdale that provides connections to all major routes that traverse the metropolitan area.

The DDC site will be part of a larger site designated by the City of Scottsdale as the "McDowell Sonoran Preserve Gateway Trailhead". This site is the most active trailhead and features two loop trails with connections to the full system and, the 0.5 mile Bajada Nature Trail which is focused toward families and those with limited mobility.

Figure II-2
Map of Location of Proposed Desert Discovery Center



Note: Blue star shows location of the planned DDC site
Source: GoogleMaps

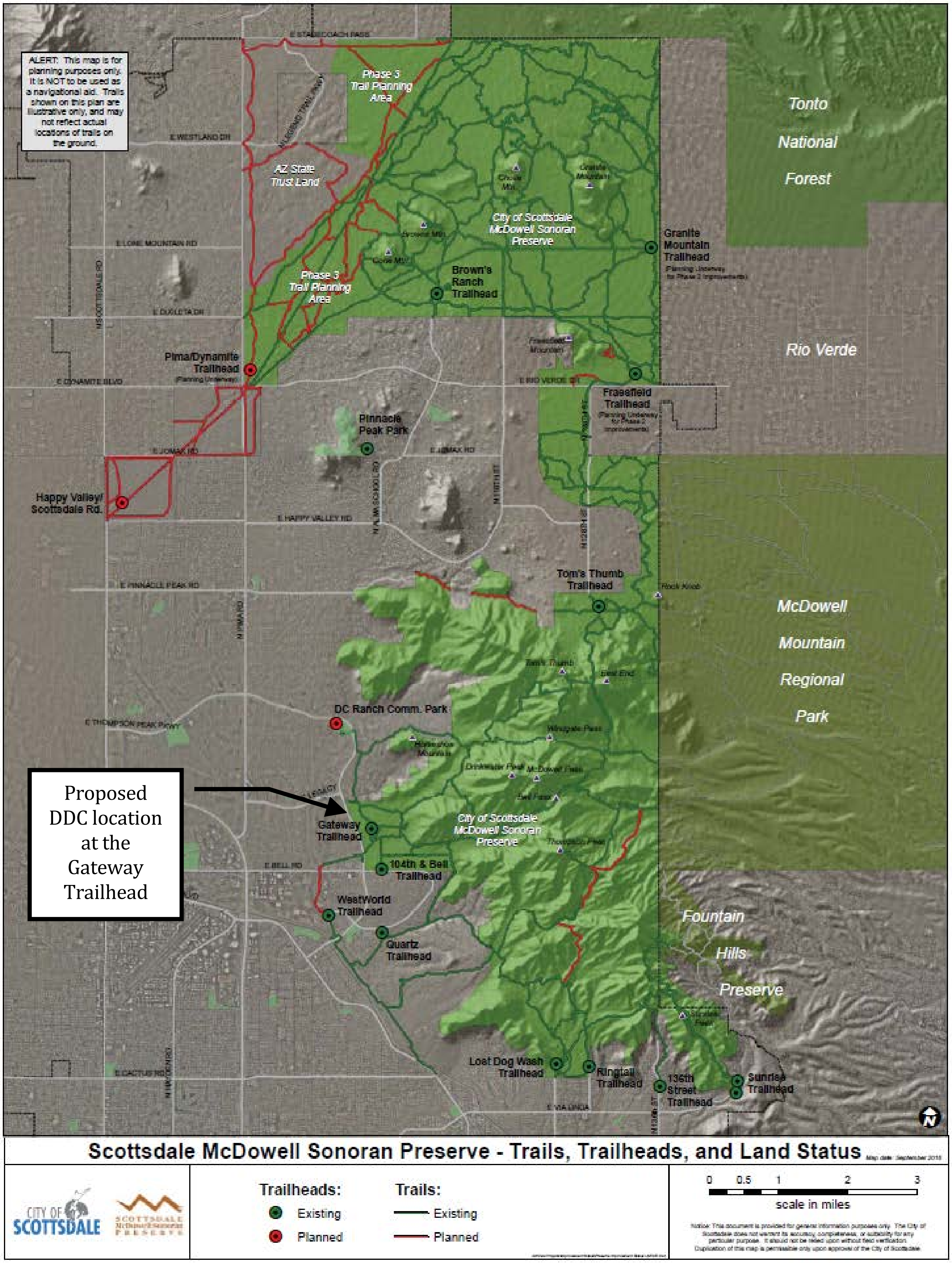
McDowell Sonoran Preserve Location

Figure II-3 is a map of the McDowell Sonoran Preserve which includes 182 miles of trails in 48 square miles (30,580 acres). Future expansion of the McDowell Sonoran Preserve is planned to the north in a Phase 3 Area that will increase the Preserve's conservation lands and its trail system.

The McDowell Sonoran Preserve Gateway is the largest of the trailheads and contains recreational trails for walkers, hikers, runners, and equestrians that are also included on this map. On site is parking, a trailhead building with restrooms, shade ramadas, water, and information the wheelchair-accessible Bajada Nature Trail, interpretive signage, horse-trailer parking, hitching rails and water trough.

The location of DDC at the McDowell Sonoran Preserve Gateway location will be an important aspect of its visibility and will increase public awareness of the facility and is the site which will foster fulfillment of DDC's education and conservation mission.

Figure II-3
Map of McDowell Sonoran Preserve Lands and Trails



Source: City of Scottsdale, September 2016

Accessibility

The Gateway site is accessible by vehicle from Thompson Peak Parkway. A major circumferential highway and primary high-speed route to and through Scottsdale, Route 101, exits onto Bell Road, approximately 1 mile from the Preserve Gateway and planned DDC site. The site is easily accessible by vehicle to residents from the Phoenix metro area, as well as visitors from outside the region that may be less familiar with the area. The primary commercial airport in the region, Sky Harbor Airport, is approximately 20 minutes from the site, contributing to Scottsdale's status as a visitor destination.

State Route 101 is a major loop road in the greater Phoenix area that runs through Scottsdale, not far from the DDC site. Data in **Table II-1** provides recent traffic patterns on SR 101.

Table II-1
Traffic Patterns on SR 101 in Scottsdale
SR101 Average Annual Daily Traffic Log 2011-2015/16

Segment	2011	2012	2013	2014	2015/16	% Increase 2011-2015/16
Exit 12-14	103,132	101,349	105,379	110,590	116,976	13.4%
Exit 14-15	100,699	109,557	114,153	120,387	138,362	37.4%

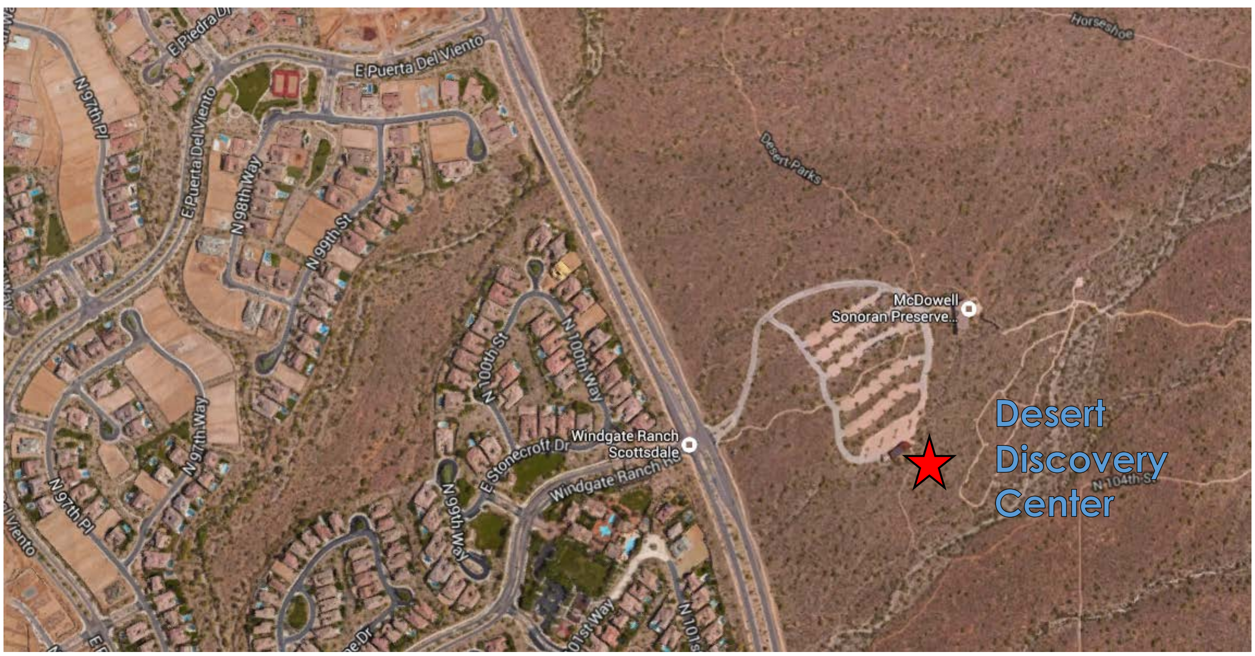
Source: State of Arizona Department of Transportation

According to the most recent available traffic data from the Arizona Department of Transportation, State Route 101 average annual daily traffic (AADT) counts have increased overall since 2011. In the highway segment between Exit 12 and Exit 14 (Bell Rd.), AADT increased 13.4 percent from 103,100 to 117,000 between 2011 and 2015. This, however, represented a decline from a peak traffic volume of 130,000 in 2006. The highway segment between Exit 15 and Exit 14 (Bell Rd.) showed more significant traffic growth, with AADT increasing 37.4 percent from 100,700 to 138,400 between 2011 and 2016, well above the previous peak of 122,000 in 2006. Local officials attribute the past reduction in AADT to effects of the country's recession, which have led to fewer new residents and employees and also less construction. It was noted that this trend has been seen throughout Scottsdale around the time of the recession, but has since rebounded.

The DDC site is located along Thompson Peak Parkway. Thompson Peak Parkway is one of the few north-south thoroughfares in this part of Scottsdale. In 2014, this road saw average annual daily traffic of 8,200, according to the City of Scottsdale this translates to 3 million vehicles annually. Currently, the City of Scottsdale is planning to signalize the entrance to the McDowell Sonoran Gateway which will also serve DDC. This signalized intersection will enhance accessibility to the site. Since DDC will be minimally visible from Thompson Peak Parkway, DDC's visibility can be enhanced with permissible roadway signage.

Figure II-4 is an aerial view of the Gateway to the McDowell Sonoran Preserve site northeast of the Thompson Peak Parkway and Bell Road intersection, and the planned DDC location.

Figure II-4
Aerial View of Proposed Desert Discovery Center Site



Note: Red star shows location of the planned DDC site
Source: GoogleMaps

Adjacent Uses

The primary adjacent use of the proposed DDC is the McDowell Sonoran Preserve as described above, 30,580 acres of Sonoran Desert that is to remain in a natural state for perpetuity. Residential uses lie to the west and south of the site, across Thompson Peak

Parkway and Bell Road, respectively, and a mix of uses including resorts are located to the north.

McDowell Sonoran Preserve Setting

The McDowell Sonoran Preserve currently encompasses an estimated 30,580 contiguous acres (48 square miles) of mountains and desert land that encompass the McDowell Mountains and land north of the mountains connecting to the Tonto National Forest. The DDC site in the Gateway is situated at the foot of the McDowell Mountains, with direct views of the McDowell Mountains to the east and urban areas to the west. **Figure II-5** provides a representative collage of McDowell Sonoran Preserve images and the lure they represent for DDC visitors. The connections to the Preserve are a central element of the market potential of DDC and in turn, DDC will interpret the natural qualities and characteristics of the Preserve among other Sonoran Desert related topics.

Figure II-5
Depictions of the McDowell Sonoran Preserve

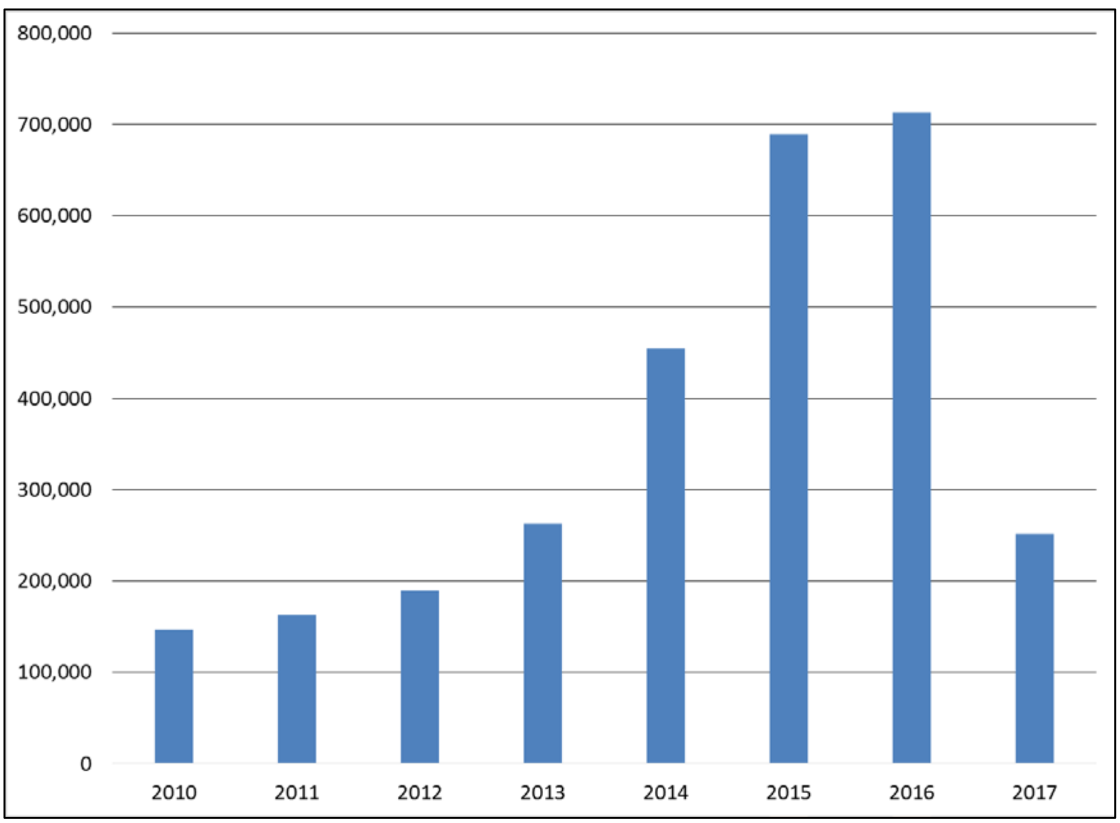
Source: City of Scottsdale

McDowell Sonoran Preserve Current Trail Use Pattern

The McDowell Sonoran Preserve is already a very popular and well-used outdoor resource. The Preserve has 182 miles of trails starting from nine trailheads around the preserve and one more in its final stages of planning, as well as a stand-alone park called Pinnacle Peak that has about 235,000 users each year. From the preserve's opening in 2005 to 2009, the McDowell Sonoran Preserve used trail counters to track trail usage, observing an increase from 33,104 visitors in 2006 to 129,030 visitors in 2009.

Since 2010, however, the preserve has shifted to use of a car counter, estimating the number of visitors as the number of cars passing into the preserve by 1.4 people per car. Data in **Figure II-6** show the preserve usage pattern for the calendar years 2010 to 2016, as well as the first three months of 2017. The data show that annual visitation has increased from about 150,000 to over 700,000 over the period.

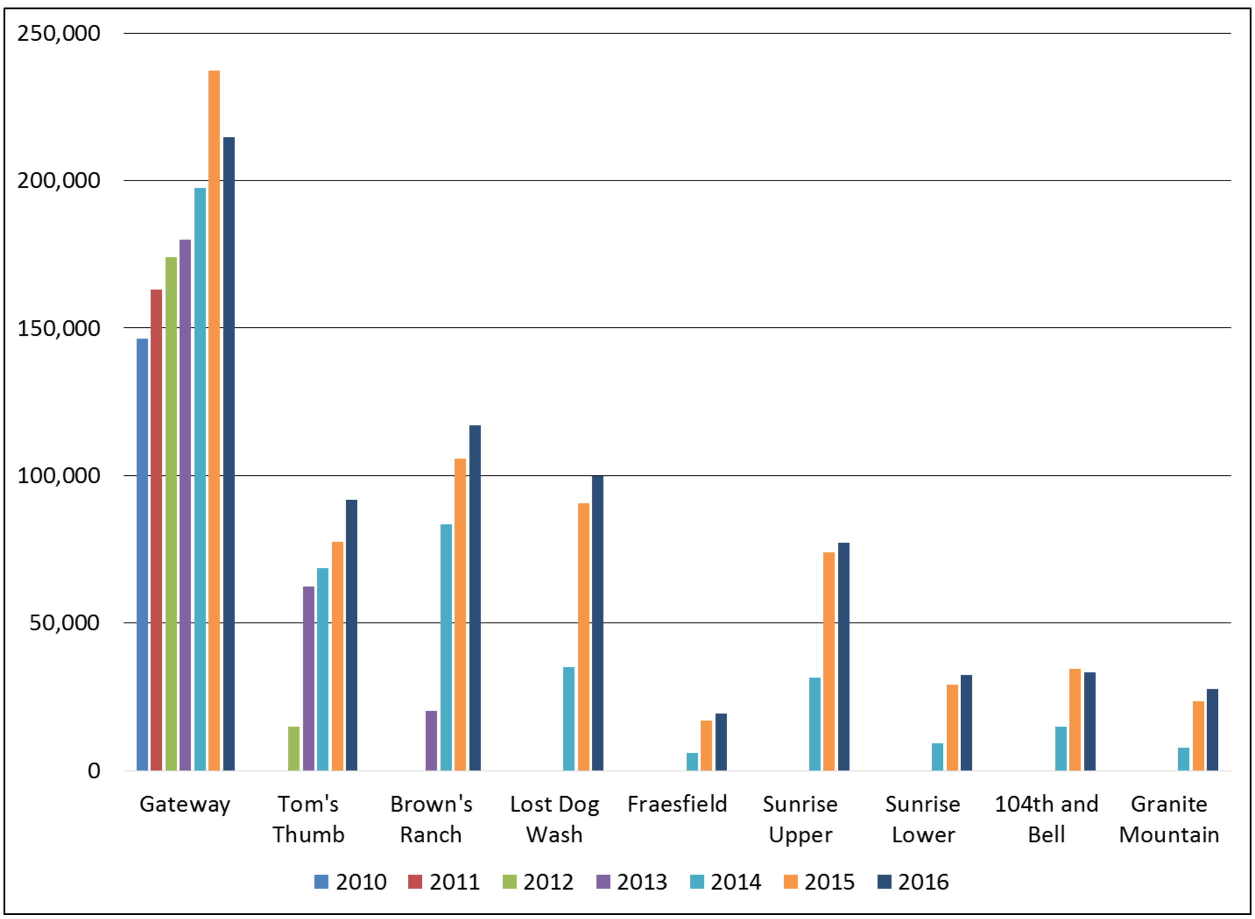
Figure II-6
Total Trail Count by Calendar Year



Source: City of Scottsdale
Note: 2017 data is January through March.

Early estimates of trail usage were based on car counters at selected trail heads. The addition of car counters at different trail heads over time has brought additional increases in trail usage over the past few years. Data in **Figure II-7** summarize the trend in usage for the different trailheads at the preserve. It is worth noting that the more remote locations gained use in 2016, with the Gateway falling off somewhat. The Gateway is the principle public access point and largest trailhead for the preserve, with an estimated 210,000 uses from this trail head in 2016. This may indicate that hikers will in the future continue to balance trail use based on their intensity of use of particular trails and that there is room for shifting of trail use among the many trails. Planned additional trails will also help to balance the load on the most popular trail heads such as the Gateway.

Figure II-7
Individual Trail Count by Calendar Year



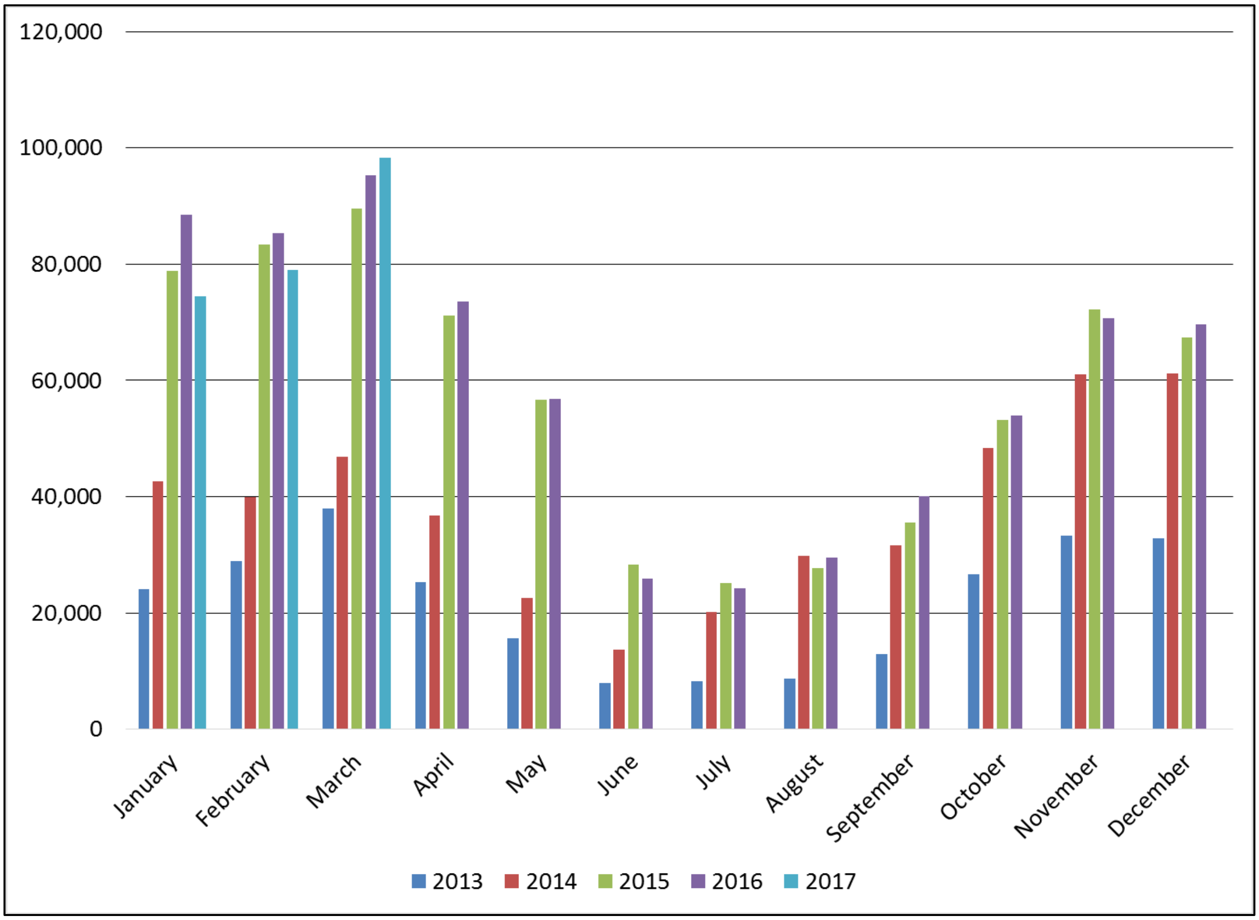
Source: City of Scottsdale

Trail Use Seasonality

The peak season of trail use runs from approximately November to May, with the most popular month to visit the Preserve being March. **Figure II-8** depicts the seasonality of the McDowell Sonoran Preserve trail use for the period 2013 through March 2017 based on the monthly car count at the preserve. **Figure II-9** summarize the trail counts for the Gateway, Tom's Thumb, and other trail heads for the years 2015 and 2016. The Gateway Trail has a higher seasonal variation than Tom's Thumb, with a higher percent use during the November through May period. This implies, perhaps, that the Gateway is used for more recreational purposes while other paths may be used more on a year-round basis by local residents for regular exercise.

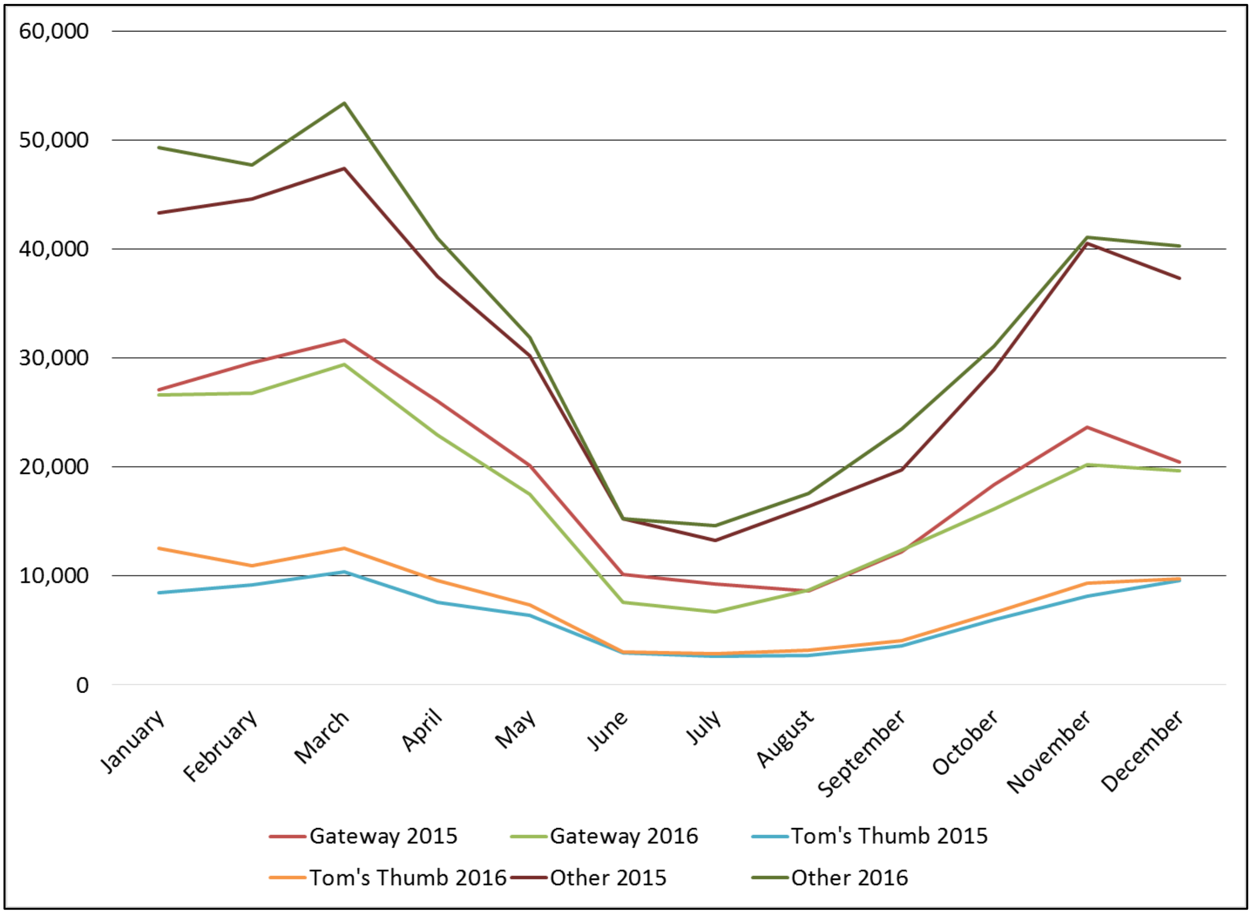
Further, as area residents become more familiar with each trail's offerings and terrain, they are using the trails for different reasons. Brown's Ranch, for instance, is becoming increasingly popular as a daily exercise destination. Granite Mountain and other northern trails are gaining popularity among mountain cyclists and older trail users, who appreciate the less rocky terrain.

Figure II-8
Total Trail Count by Month, 2013-2017
McDowell Sonoran Preserve Trails



Source: City of Scottsdale

Figure II-9
Individual Trail County by Month, 2014-2016
McDowell Sonoran Preserve Trails



Source: City of Scottsdale

Trail Daily and Hourly Usage

Weekends tend to be more popular than weekdays for trail usage. Throughout the year, weekend trail usage tends to make up between 30 and 50 percent of the usage for the week, with the remaining 50 to 70 percent of traffic made up by weekday traffic. During most of the year Preserve usage tends to build during the morning to a peak usage window between 10:00 AM and noon. During the hotter summer months, the daily usage patterns sees two peaks: one in the cooler early morning hours and one in the evening before the preserve closes at dark. Daily usage of the park is somewhat weather dependent, with rainy days keeping users away.

Intercept Survey

Between June 2014 and March 2016, the City of Scottsdale conducted an intercept survey of McDowell Preserve users. Interviews were conducted at five trail head locations – Brown's Ranch, Gateway, Lost Dog Wash, Tom's Thumb, and Granite Mountain. The data show that users typically drive to the preserve, and about 80 percent of users hike or walk the trails, with the remaining 20 percent biking, jogging, or horseback riding. 47 percent of users reported that they were likely to use the trails both on weekdays and weekends; about 26 percent reported they typically go on weekends, 11 percent reported they go on weekdays, and 15 percent reported that it was their first time. 71 percent of those interviewed reported that they prefer to use trails in the morning, though it is noted that these data may be skewed due to the timing of the interviews. Overall, trail heads were rated favorably for conditions and experience offered; however, variety of experience tended to score lower.

Summary

The Desert Discovery Center (DDC) will be located at the intersection of Thompson Peak Parkway and Bell Road, about one mile from Exit 14 (Bell Road) on State Route 101, a major limited-access loop road connecting Scottsdale to the rest of the metro area. As such, the site will be easily accessible by vehicle to residents from the Phoenix metro area, as well as visitors from outside the region that may be less familiar with the area.

Site size and quality, as well as adjacent uses are supportive of the development of DDC. The primary adjacency of DDC is the McDowell Sonoran Preserve, a 30,580-acre preserve, which will be the central interpretive theme for DDC. Trail use since the establishment of the Preserve has been increasing, with an estimated 700,000 uses at 9 trailheads in 2016. Trail users include both visitors to the area and residents who use the trails for hiking, trail running, and biking. DDC will be located at the McDowell Sonoran Preserve Gateway Trailhead. The Gateway is the principle public access point and largest trailhead for the preserve, with an estimated 210,000 uses from this trail head in 2016. The DDC site at the Gateway Trailhead is situated at the foot of the mountains, with direct views of the McDowell Mountains in one direction and views over the Phoenix urban area in the other. This will provide a dramatic contrast of views between natural desert and urban environments.

Residential uses lie to the west and south of the site, across Thompson Peak Parkway and Bell Road, respectively. A mix of uses is located to the north. Overall, the location of the site relative to the metropolitan area and relative to its adjacent uses suggest an environment supportive of DDC.

Section III

DESERT DISCOVERY CENTER CONCEPT

This report section describes the DDC concept as currently envisioned. Following is a concise project description of the DDC concept as advanced to date. The business plan is based on the full 2017 Conceptual DDC Campus Plan prepared by Swaback Partners, and the 2017 Desert Discovery Center Exhibition Concept Design prepared by Thinc. These detailed documents and plans have been separately presented.

Desert Discovery Center Concept

Scottsdale's Desert Discovery Center (DDC) is envisioned as an interpretive, education and research center intended to complement the McDowell Sonoran Preserve experience and be a focal point for understanding human interaction with arid environments. Desert Discovery Center Scottsdale, Inc.'s (DDCS) Mission for DDC is:

> "Educate and inspire a global audience to value, thrive in, and conserve desert environments through transformative experiences based on scientific studies in Scottsdale's McDowell Sonoran Preserve and from around the world."

Desert Discovery Center Scottsdale, Inc. is the 501(c)(3) is the not-for-profit organization that is charged with developing the plans for DDC and raising support and funding for its successful development. The DDC plan has been advanced in the last year in its design, planned visitor experience, partnerships, and operating approach. The not-for-profit operator may be a successor organization to DDCS or another organization as future planning may indicate.

DDC conceptual design and program of spaces has been advanced by the City of Scottsdale's architect Swaback Partners PLLC. The planned visitor experience has been advanced by DDCS' experience designer Thinc Design. Arizona State University's Global Drylands Institute will have facilities at DDC and will share in creating programs and educational experiences for visitors. This business plan reflects these and other partnerships and plans as further detailed in this report and in separate design and planning documents.

Ownership and Governance

The City of Scottsdale owns the land, and will own the DDC buildings and infrastructure. However, it is envisioned that a private operator (assumed to be an outgrowth of DDCS) will be under contract to run the facility on a daily basis, providing programs, experiential exhibits, volunteers and staff. This model for a public/private partnership is used to run facilities such as Western Spirit: Scottsdale's Museum of the West.

Planned On-Site Global Drylands Institute Partnership

ASU's Global Drylands Institute (GDI) is planning to partner with DDCS to locate a Research Field Station at DDC. GDI will also be a program partner showcasing its local research and conservation efforts as well as providing a national and global perspective on its subject matter. This future partnership is still in its planning stages, but both GDI and DDCS have expressed great interest in the potential partnership and both recognize the tremendous benefits to each organization, to the public and to conservation efforts that this partnership will create. The refinement of GDI facility plans, programs and financial relationships is underway. The DDC campus plan includes a building for GDI's Field Station. However financial terms have not been determined and therefore are not included in this business plan. However market analysis in this business plan factors in the expected benefits of GDI's on-campus presence and programming partnership.

DDC Conceptual Designs

This business plan is based on the Conceptual DDC Site Plans that have been prepared by Swaback Partners PLLC and are separately presented. The campus itself will be open to the public, with the various exhibit buildings requiring admission. Moving forward the campus and building design will be refined and detailed. *Desert Discovery Center Exhibition Concept Design* prepared by Thinc, dated May 2017 is the basis for this business plan's concept for the visitor experience. This exhibition concept design, in later design phases, will be translated to exhibit designs and refined plans for visitor experiences. This business plan reflects the concepts, plans and visitor experiences described in these documents to date.

DDC Campus and Visitor Experience

DDC will offer a unique setting and visitor experience. It will offer an indoor – outdoor setting with views framed to enjoy the beautiful natural environment, connections to the McDowell Sonoran trail system including the 0.5 mile Bajada Nature Trail which is focused toward families and those with limited mobility. The exhibits and programs will explore geological origins, biodiversity and connectivity, water and its role in sustaining life, humans living sustainably in arid places and many other related topics with the McDowell Sonoran Preserve being the lens for the visitor experience. An ongoing series of changing and special exhibits will be offered. GDI plans to offer in-depth presentations and information about some of the most important issues related to sustainability in arid places. This mix of visitor experiences and informal education will provide attractive and repeatable experiences for visitors of a wide variety of ages and interests.

Planned DDC Program of Spaces

Total site square footage (SF) is estimated at 126,000 SF. Of this, 10,500 gross SF (GSF) would be dedicated to ASU's Global Drylands Institute. Exhibit Space will occupy approximately 30,900 GSF of indoor and outdoor areas (outdoor areas are largely "under roof" but non-conditioned space or under canopy). An off-site Administration Building is also planned, at 5,400 SF. Data in **Appendix A, Table A-1** provides the program of spaces as prepared by Swaback Partners. This program of spaces is the basis for this market study and business plan. In summary and rounded to the nearest 100 SF, it includes:

- Under Roof Conditioned space: 47,600 GSF
  - Of which 38,550 GSF is DDC exhibit and Support space
  - And, 9,050 GSF will be occupied by GDI
- Under Roof Non-Conditioned space 37,300 GSF
  - Of which 4,890 GSF is exhibit space
  - And 1,470 GSF will be occupied by GDI
  - The remainder is Public Circulation Space, areas for demonstrations and informal education plus non-programmed areas
- Canopy Space 33,100 GSF
  - Of which 2,950 GSF is exhibit space

- 4,800 SF is the Sonoran Steps program presentation area
- The remainder is Public Circulation Space, areas for demonstrations and informal education plus non-programmed areas

♦ Uncovered Space: in excess of 16,000 SF
- Of which 7,000 SF is exhibit space
- Other areas include pedestrian circulation, plantings etc.

Parking Areas for both DDC and the off-site Administration Building are not included in this program of SF. These are expected to be owned and operated by the City of Scottsdale. A summary of planned parking follows.

Parking

There are currently 381 parking spaces at the Gateway site which serve Gateway Trailhead users. The adjacent DDC, will also have dedicated parking. At this time an additional 163 parking space are planned to be developed in conjunction with the DDC. While there may be opportunities for "shared parking" with Gateway's parking such sharing could only occur once DDC is open and there is proof of additional parking capacity from Gateway designated parking spaces. This operating plan does not include such shared parking opportunities.

There may also be the opportunity for valet parking on-site and within the designated parking footprint by using valet parking techniques in a designated valet parking area during the busiest periods. An estimate of 40 additional vehicles accommodated via valet parking during the busiest periods is an opportunity under consideration by DDCS.

A parking management plan will be developed for DDC in conjunction with Gateway, Program Partners with off-site parking at an "overflow" lot and parking strategies. This overflow parking will be at the site of the off-site DDC Administration Building. Off-site parking will be used for staff and volunteers during busy periods; for buses and large vehicles; for visitors on high attendance days; and for attendees of evening events. It is estimated that 180 or more spaces will be needed at the overflow lot co-located with the off-site DDC Administration Building. The operating plan includes staff for shuttle bus operations. Therefore, it is assumed in this business plan that there will be sufficient parking for DDC operations.

Summary

DDC is envisioned as an interpretive, education and research center intended to complement the McDowell Sonoran Preserve Experience, and to be a focal point for understanding human interaction with arid environments. Desert Discovery Center Scottsdale, Inc. (DDCS) is the 501(c)(3) nonprofit organization established for the purpose of planning and possibly operating the Desert Discovery Center (DDC). DDC conceptual design and program of spaces has been advanced by the City of Scottsdale's architect Swaback Partners PLLC and the planned visitor experience advanced by DDCS' experience designer Thinc Design.

DDC will offer a unique setting and visitor experience, encompassing an indoor-outdoor setting with view framed to enjoy the natural environment, as well as connections to the McDowell Sonoran Trail System. Exhibits and programs will explore geological origins, biodiversity and connectivity, water and its role in sustaining life, humans living sustainably in arid places and many other related topics with the McDowell Sonoran Preserve being the lens for the visitor experience. Arizona State University's Global Drylands Institute will have facilities at DDC and will share in creating programs and educational experiences for visitors.

Total square footage of the campus is estimated to be 126,000 square feet (SF) of which 47,600 SF will be under roof conditioned space and the remainder will be unconditioned space under roof, canopy or open air. In addition, there is additional non-programmed areas, pedestrian circulation, plantings etc. Exhibits are planned for 30,900 gross square feet (GSF) in both indoor and outdoor areas. ASU's Global Drylands Institute will occupy 10,500 GSF of which 9,000 gross SF will be under roof conditioned space. An off-site Administration Building of 5,400 is also planned.

There are currently 381 parking spaces at the Gateway site which serve Gateway Trailhead users. The adjacent DDC, will also have dedicated parking. At this time an additional 163 parking space are planned to be developed in conjunction with the DDC. While there may be opportunities for "shared parking" with The Gateway's parking such sharing could only occur once DDC is open and there is proof of additional parking capacity from Gateway designated parking spaces. This operating plan does not include such shared parking opportunities.

There may also be the opportunity for valet parking on-site and within the designated parking footprint by using valet parking techniques in a designated valet parking area during the busiest periods.

A parking management plan will be developed for DDC in conjunction with The Gateway, Program Partners with off-site parking at an "overflow" lot and parking strategies. This overflow parking will be at the site of the Off Site DDC Administration Building. Off-site parking will be used for staff and volunteers during busy periods; for buses and large vehicles; for visitors on high attendance days; and for attendees of evening events. It is estimated that 180 or more spaces will be needed at the overflow lot co-located with the off-site DDC Administration Building. The operating plan includes staff for shuttle bus operations.

Section IV

RESIDENT MARKET AREA DEFINITION AND ANALYSIS

The proposed DDC is expected to attract visitors from both resident and tourist markets. This section of the report evaluates the resident markets for the project.

Resident Market Definition and Analysis

Although DDC will draw a variety of market segments, the project's resident market will be a significant source of visitors. Ultimately, the geographic reach and available markets for a project depend on the size and quality of the facility and its exhibits and programs, its accessibility and location, the presence of nearby attractions, regional transportation networks, and marketing efforts.

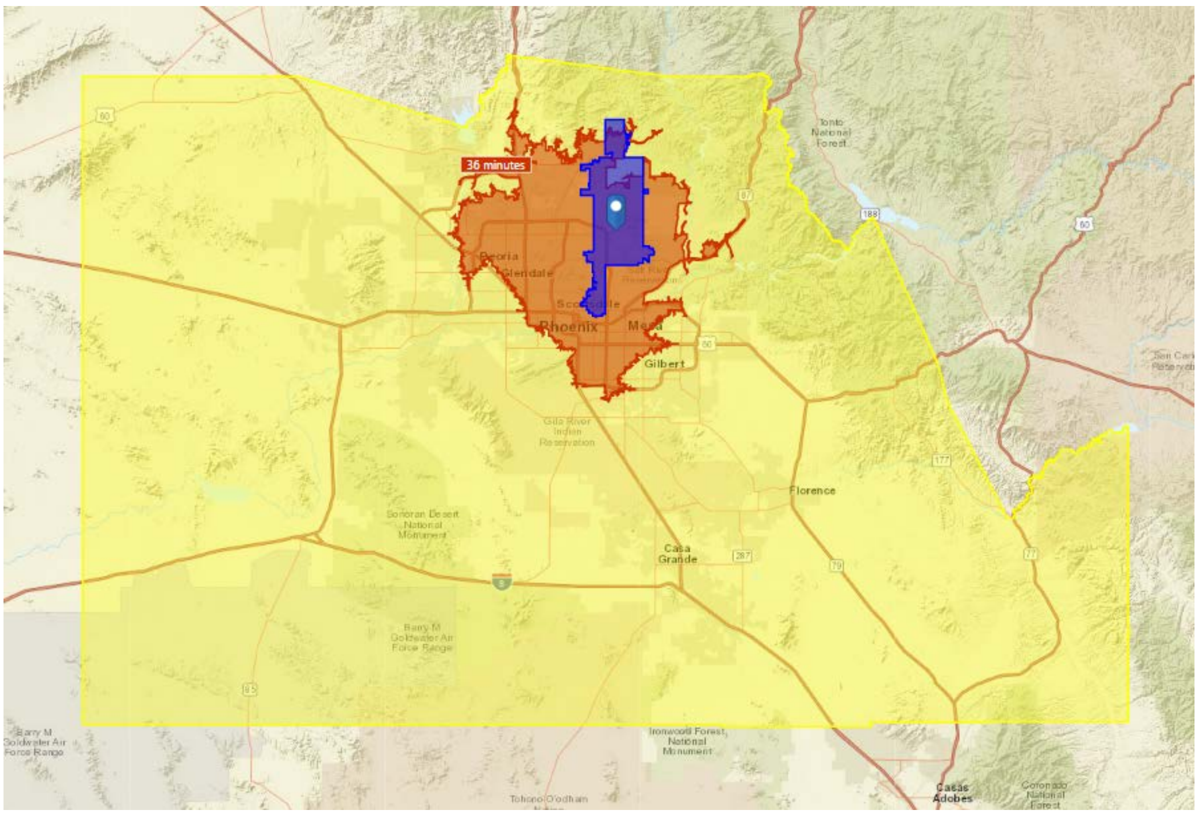
The resident market for a destination such as DDC is defined as the area whose residents will visit DDC as part of a day-trip. Persons in the resident market often have repeat visitation patterns, or become members of the institution. Visiting the project will be a primary purpose or important part of a day-trip. Resident markets are analyzed within a "gravity model" context; the closer residents live to the conservation and education destination, the more likely they are to visit. Depending on the individual market's circumstances, resident markets can extend up to 100 or more miles, or be as narrow as 50 miles. On its periphery, the resident market changes over to the visitor (or tourist) market. The visitor market will be reviewed in a subsequent section of this report.

The overall Resident Market Area for DDC is defined as the area surrounding Scottsdale within Arizona, extending to about 75 miles away from the planned site. Within this overall Resident Market Area, Primary, Secondary and Tertiary Market segments are defined as follows:

- **Primary Resident Market Area:** City of Scottsdale, Arizona.
- **Secondary Resident Market Area:** Area within a 36-minute drive of the entrance to the McDowell Sonoran Preserve at North Thompson Peak Parkway in Scottsdale, not including the Primary Resident Market Area.[3]
- **Tertiary Resident Market Area:** Phoenix Metropolitan Area (Maricopa and Pinal Counties) not including the Primary and Secondary Resident Market Areas.

Figure IV-1 shows the Resident Market Areas for DDC.

Figure IV-1
Resident Market Areas for the Proposed Desert Discovery Center



Source: ESRI; ConsultEcon, Inc.

Area	Color	Definition
Primary Market Area		City of Scottsdale
Secondary Market Area		Approximate 36-Minute Drive from entrance to the McDowell Sonoran Preserve at North Thompson Peak Parkway.
Tertiary Market Area		Phoenix-Mesa-Scottsdale Metropolitan Area

[3] This is the area that was within a 30-minute drive of the site in 2010. In any event, this area as shown in Figure IV-1 is an area that is readily accessible, and whose residents are typically familiar with Scottsdale and the area road network.

The Primary Resident Market Area is located near the site, and will draw spontaneous trips to the facility. The residents are familiar with the travel routes and Scottsdale is a "top-of-mind" destination for recreational and educational activities. There is potential for the residents of this area to develop repeat visitation patterns.

The Secondary Resident Market Area is defined as the population residing within a 36-minute drive time from the project site (excluding the Primary Market Area). This area is within easy day-trip distance. The residents of the area are probably familiar with travel routes, and they identify themselves with Scottsdale as a media market and the central city in the region. There is potential for the residents of this area to make repeat visits.

The Tertiary Resident Market Area is defined as the Phoenix Metropolitan Area (excluding the Primary and Secondary Market Areas), extending about 75 miles from the site. The residents of the Tertiary Market Area are still within day-trip distance; however, the trip will likely be planned in advance and include visits to other attractions. These residents are familiar with the travel routes, but live farther from the site.

Resident Market Area Demographic Characteristics

Following is a review of the demographic characteristics of the Primary, Secondary and Tertiary Resident Market Areas.

Resident Market Area Population

Data in **Table IV-1** detail the population trend within the Resident Market Area, using 2010 Census data and population projections for 2016 and 2021.

Table IV-1
Population Trend in the Resident Market Area, 2010, 2016, 2021
Proposed Desert Discovery Center

	2010	2016	2021	Percent Change, 2016 to 2021
Primary Market Area	217,400	231,800	246,000	6.1%
Secondary Market Area	1,899,800	2,033,100	2,159,700	6.2%
Tertiary Market Area	2,075,700	2,319,300	2,536,500	9.4%
Total Resident Market Area	**4,192,900**	**4,584,200**	**4,942,300**	**7.8%**
State of Arizona	***6,392,000***	***6,877,000***	***7,304,000***	***6.2%***
United States	***308,745,500***	***323,580,600***	***337,326,100***	***4.2%***

Note: Population numbers are rounded to nearest hundred.
Source: U.S. Census Bureau, Census 2010 Data; ESRI forecasts for 2015 and 2020; and ConsultEcon, Inc.

The Primary Resident Market Area population is estimated at 231,800, and is projected at to grow 6.1 percent to 246,000 by 2021. The Secondary Resident Market Area population is estimated at 2.0 million in 2016, and is projected to increase to 2.2 million, an increase of 6.2 percent, by 2021. The Tertiary Resident Market Area population was estimated at 2.3 million in 2016, and is projected to increase to 2.5 million by 2021, an increase of 9.4 percent. The overall Resident Market Area population is projected to increase by 7.8 percent, from 4.6 million to 4.9 million between 2016 and 2021.

The growth rate in the total Resident Market Area, (7.8%) is slightly higher than the projected growth rate of the population of the State of Arizona over the same period (6.2%), and significantly higher than the projected growth rate of the population of the U.S. as a whole over that period (4.2%). These market data represent a growth trend that will increase the size of the markets available for the project.

Resident Market Area Age Profile

Important audiences for conservation and education destinations such as DDC are adults in their mid-20's through 40's with children, and adults above the late 40's who have more time and disposable income for recreational activities of this type. Data in **Table IV-2** profile the Resident Market Area 2016 population by age categories.

Table IV-2
Median Age and Percent of Population by Age Group in the Resident Market Area, 2016
Proposed Desert Discovery Center

	Median Age	0 to 17	18 to 24	25 to 34	35 to 54	55 to 64	65+
Primary Market Area	47.3	16.5%	7.0%	11.8%	25.9%	15.6%	23.2%
Secondary Market Area	35.6	23.2%	10.7%	15.3%	25.4%	11.8%	13.7%
Tertiary Market Area	34.2	27.6%	9.2%	14.0%	25.0%	10.2%	14.0%
Total Resident Market Area	**35.5**	**25.1%**	**9.7%**	**14.5%**	**25.2%**	**11.2%**	**14.3%**
State of Arizona	***36.8***	***24.2%***	***9.8%***	***13.8%***	***24.3%***	***12.0%***	***15.9%***
United States	***38.0***	***22.9%***	***9.7%***	***13.6%***	***25.9%***	***12.8%***	***15.0%***

Source: ESRI and ConsultEcon, Inc.

The overall Resident Market population has an age profile that is fairly consistent with that of the State of Arizona and the U.S. as a whole. However, the Primary market area has an age profile older than the Secondary and Tertiary Market Areas as well as that of the State and the U.S. as a whole.

These data are supportive of the development of DDC. In the Secondary and Tertiary Market Areas there is a high ratio of families. In the Primary Market Area are not only families but a high ratio of mature population that will visit DDC to enjoy it from an adult perspective. With many nearby residents in retirement and with disposable time and income, they can form an important component of the audience for this type of conservation and education destination including hosting their families while they visit, as well as becoming members and volunteers.

Resident Market Area School Age Population

Students are an important component of a conservation and education organization's market for several reasons. First, families with children are frequent visitors to this type of facility, as parents seek educational, as well as entertaining family outings. Second, school groups are an important component of visitation, particularly during off-peak periods and on weekdays when general visitation numbers are lower. In addition, visits to a conservation and education destination such as DDC by children in school groups can result in word-of-mouth advertising to friends and family. This in turn leads to repeat visitation and new visitation. Data in **Table IV-3** show the estimated number of children ages 5 through 17 in the Resident Market Areas in 2016, as well as the projected number of school age children in 2021, and the growth rate between the five years. As noted, the Primary Market Area has relatively fewer children than the Secondary and Tertiary Market Areas.

Table IV-3
Estimated Number of Children Aged 5-17 in Resident Market Area, 2016 and 2021
Proposed Desert Discovery Center

	2016 Estimated School-Age Children	2021 Estimated School-Age Children	Percent Change, 2016 to 2021
Primary Market Area	29,364	28,733	-2.2%
Secondary Market Area	338,747	347,913	2.7%
Tertiary Market Area	454,256	489,838	7.8%
Total Resident Market Area	**822,367**	**866,484**	**5.4%**
State of Arizona	***1,194,120***	***1,237,430***	***3.6%***
United States	***54,101,834***	***54,840,778***	***1.4%***

Source: ESRI and ConsultEcon, Inc.

In all, there were an estimated 822,000 school age children in 2016 in the Resident Market Area. This number is projected to increase by 5.4 percent, to approximately 866,000 by 2021. The area of largest projected growth is the Tertiary Market Area, while the Primary Market Area is projected to see a small decline in the number of school age children. The overall Resident Market Area's projected growth is higher than in the State and the Country as a whole.

Resident Market Area Households

Data in **Table IV-4** show the estimated and projected numbers of households and family households in the Resident Market Areas, as well as the average household size for the years 2016 and 2021.

Table IV-4
Resident Market Household Profile, 2016-2021
Proposed Desert Discovery Center

	Estimated Number of Households	Estimated Number of Family Households	Percent of Families to Total Households	Average Household Size
2016				
Primary Market Area	107,756	59,990	55.7%	2.14
Secondary Market Area	790,322	474,513	60.0%	2.53
Tertiary Market Area	767,000	564,818	73.6%	2.96
Total Resident Market Area	**1,665,078**	**1,099,321**	***66.0%***	**2.70**
State of Arizona	***2,541,622***	***1,666,137***	**65.6%**	***2.65***
United States	***121,786,233***	***80,307,260***	**65.9%**	***2.59***
2021				
Primary Market Area	114,157	63,010	55.2%	2.14
Secondary Market Area	838,750	498,556	59.4%	2.54
Tertiary Market Area	835,569	613,374	73.4%	2.98
Total Resident Market Area	**1,788,476**	**1,174,940**	**65.7%**	**2.72**
State of Arizona	***2,691,457***	***1,755,527***	***65.2%***	***2.66***
United States	***126,694,268***	***83,243,260***	***65.7%***	***2.60***
% Change 2016 to 2021				
Primary Market Area	5.9%	5.0%	-0.9%	0.0%
Secondary Market Area	6.1%	5.1%	-1.0%	0.4%
Tertiary Market Area	8.9%	8.6%	-0.3%	0.8%
Total Resident Market Area	**7.4%**	**6.9%**	**-0.5%**	**0.7%**
State of Arizona	***5.9%***	***5.4%***	***-0.5%***	***0.4%***
United States	***4.0%***	***3.7%***	***-0.4%***	***0.4%***

Source: ESRI and ConsultEcon, Inc.

In 2016 there were an estimated 1.67 million households in the Resident Market Area, 1.20 million of which were family households, representing 66.0 percent of households. By 2021 the number of household is projected to grow 7.4 percent to 1.79 million, of which a lower proportion (65.7%) are projected to be family households, or 1.17 million. Overall, the household profile in the Resident Market Area is relatively similar to that in the State of Arizona and the United States as a whole.

Resident Market Area Income Characteristics

Higher incomes are associated with visitation to conservation and education destinations such as DDC, both in terms of the ability to visit (disposable income, transportation and leisure time) and the desire to visit, as higher incomes frequently reflect higher educational attainment. Several measures of income are provided in this assessment.

Data in **Table IV-5** show household income characteristics in the Resident Market Area compared to the State of Arizona and the U.S. as a whole for the years 2016 and 2021.

Table IV-5
Percent of Resident Market Area Households by Income Group, 2016-2021
Proposed Desert Discovery Center

	Median Household Income 2016	Median Household Income 2021	Percent Change 2016-2021
Primary Market Area	$73,598	$83,672	13.7%
Secondary Market Area	$50,568	$56,586	11.9%
Tertiary Market Area	$56,939	$64,103	12.6%
Total Resident Market Area	**$54,993**	**$61,827**	**12.4%**
State of Arizona	***$51,141***	***$56,919***	***11.3%***
United States	***$54,149***	***$59,476***	***9.8%***

Source: ESRI and ConsultEcon, Inc.

A second measure of income is by income cohorts. Data in **Table IV-6** compare the income cohorts of the Resident Market Areas to the State of Arizona and the U.S. as a whole.

Table IV-6
Percent of Resident Market Area Households by Income Group, 2016
Proposed Desert Discovery Center

	Less than $25,000	$25,000-$49,999	$50,000-$74,999	$75,000-$99,999	$100,000+
Primary Market Area	16.4%	19.3%	14.9%	12.0%	37.4%
Secondary Market Area	23.4%	25.0%	17.4%	12.3%	22.0%
Tertiary Market Area	19.4%	23.6%	19.4%	14.0%	23.6%
Total Resident Market Area	**21.1%**	**24.0%**	**18.2%**	**13.1%**	**23.7%**
State of Arizona	***23.8%***	***25.0%***	***18.0%***	***12.4%***	***20.8%***
United States	***22.6%***	***23.4%***	***17.7%***	***12.3%***	***24.1%***

Source: ESRI and ConsultEcon, Inc.

The data show that the total Resident Market Area has a greater proportion of households with an income greater than $50,000+ than the State of Arizona, but about the same proportion compared to the United States as a whole. Approximately 54.9 percent of households in the Resident Market Area have incomes in that range, compared to approximately 51.2 percent of households in the State of Arizona, and 54.0 percent in the U.S. as whole. These income data are supportive of the first income analysis, with a significant percentage of Resident Market Area residents that have the economic means to readily attend conservation and education destination such as DDC.

Resident Market Area Lifestyle Activities

DDC will be attractive to residents, but particularly those who engage in nature, and or in educational, and cultural activities that are relevant to the Sonoran Desert and the environment that DDC is interpreting. Data in **Table IV-7** summarize the participation in active lifestyle activities relevant to DDC, including backpacking, hiking, and walking for exercise. The data shows that the Primary Market Area is most engaged in these activities compared to the other parts of the Resident Market Area, and compared to the United States as a whole.

Table IV-7
Resident Market Area Participation in Active Lifestyle Activities, 2016
Proposed Desert Discovery Center

	Total Number of Adults	Participated in Backpacking in last 12 Months			Participated in Hiking in last 12 Months			Participated in Walking for Exercise in last 12 Months		
		Number	Percent	MPI	Number	Percent	MPI	Number	Percent	MPI
Primary Market Area	193,561	7,325	3.8%	124	26,721	13.8%	139	62,083	32.1%	120
Secondary Market Area	1,561,507	48,979	3.1%	NC	161,561	10.3%	NC	409,828	26.2%	NC
Tertiary Market Area	1,678,635	42,084	2.5%	NC	150,398	9.0%	NC	435,387	25.9%	NC
Total Resident Market Area	**3,433,703**	**98,388**	**2.9%**	**94**	**338,680**	**9.9%**	**99**	**907,298**	**26.4%**	**99**
State of Arizona	***5,213,067***	***148,066***	***2.8%***	***93***	***495,382***	***9.5%***	***96***	***1,361,473***	***26.1%***	***97***

Note: MPI stands for Market Potential Index and compares the geography to that of the U.S. Sample as a whole. A higher index indicates a higher propensity to engage in those activities.
Source: ESRI and ConsultEcon, Inc.

In addition to being attractive to residents of the area who are engaged in active lifestyle activities, DDC will be of interest to area residents who tend to engage in leisure and education activities. Data in **Table IV-8** summarize the participation in leisure and education activities that indicate potential interest in DDC, including visiting an art gallery (interest in culture and beauty), visiting a museum (learning, education, family activities), and visiting a zoo (natural world education and family activities). The data show that, again, the Primary Market Area has a higher propensity to participate in these activities compared to other parts of the Resident Market Area, the State as a whole, and the United States as a whole. This was especially true for visiting museums – where the index for the Primary Market Area indicated that residents of this area were 47 percent more likely to visit a museum than the typical resident of the United States, where as residents of the Resident Market Area as a whole and the State of Arizona were less likely than residents of the United States as a whole to visit a museum.

Table IV-8
Resident Market Area Participation in Active Lifestyle Activities, 2016
Proposed Desert Discovery Center

	Total Number of Adults	Went to Art Gallery in last 12 months			Went to Museum in last 12 months			Went to Zoo in last 12 months		
		Number	Percent	MPI	Number	Percent	MPI	Number	Percent	MPI
Primary Market Area	193,561	22,576	11.7%	157	34,892	18.0%	147	24,332	12.6%	113
Secondary Market Area	1,561,507	123,913	7.9%	NC	190,464	12.2%	NC	184,919	11.8%	NC
Tertiary Market Area	1,678,635	109,671	6.5%	NC	182,949	10.9%	NC	193,532	11.5%	NC
Total Resident Market Area	**3,433,703**	**256,160**	**7.5%**	**100**	**408,305**	**11.9%**	**97**	**402,783**	**11.7%**	**105**
State of Arizona	***5,213,067***	***382,469***	***7.3%***	***98***	***591,610***	***11.3%***	***92***	***576,228***	***11.1%***	***99***

Note: MPI stands for Market Potential Index and compares the geography to that of the U.S. Sample as a whole. A higher index indicates a higher propensity to engage in those activities.
Source: ESRI and ConsultEcon, Inc.

These data are reflective of a mature population base that is relatively financially well off, educated and at ages where they have more time for activities such as hiking and attending museums. Both of these types of activities are indicative of a positive market response to the planned DDC.

Summary

The overall Resident Market Area for DDC is defined as the Phoenix Metropolitan Area, which encompasses Maricopa and Pinal Counties, extending to about 75 miles away from the planned site. The Resident Market Area population is projected to increase between 2016 and 2021 by 7.8 percent, from 4.6 million to 4.9 million. This growth trend will increase the size of the markets available to DDC.

The demographic characteristics of the Resident Market Areas include moderately high-income household levels, a similar age profile to the United States as a whole, and a large population of school-age children. In all, there were an estimated 822,000 school age children in 2016 in the Resident Market Area, a number that is projected to increase by 5.4 percent, to approximately 866,000 by 2021. The median household income in the overall Resident Market Area is somewhat higher than those of the State of Arizona, but about the same as that in the United States as a whole. While this indicates a significant number of households that can afford to visit a conservation and education destination such as DDC, care should be taken in planning ticket price ranges to be affordable to all economic levels in the Resident Market Areas.

Also indicative of the resident market potential to visit DDC was resident's relatively high level of engagement in active, leisure, and educational activities; on the whole, residents of the primary market area were more likely than other parts of the resident market area, the State of Arizona, and the United States as a whole to participate in activities like walking for exercise and visiting a museum, indicating that they will have a higher propensity to visit a destination like DDC. Overall, these population and income level data, especially in the Primary Market Area, are positive indicators for potential resident market visitation to DDC.

Section V
TOURISM MARKET

This section reviews the tourist markets available to the proposed DDC. This includes a review of Arizona and Phoenix regional tourism trends and an evaluation of Scottsdale tourism and selected area visitor attractions and conservation, cultural and education based sites. As a major conservation and education destination, DDC has the potential to draw visitation from tourists in Scottsdale, as well as tourists staying in other locations throughout the Phoenix Metro Area (Central Arizona Tourism Region), which is defined as Maricopa and Pinal Counties. In addition, DDC's focus on desert ecology and the natural world, as well as its close proximity to the primary loop highway (US 101) in the region, may draw visitors passing through the area en route to natural destinations throughout the state. As planned, DDC will also have the potential to draw from longer day-trip markets such as Tucson and Flagstaff because of its unique offerings and physical setting.

For the purposes of this study, tourist[4] markets are defined as follows:

- **Overnight Visitors** to Scottsdale, with the following segments by overnight accommodations:
  - Hotel/Motel Resort Visitors staying in the Scottsdale Market Area [5]
  - Visitors staying in other types of paid lodging [6]
  - Seasonal residents – Second homeowners, families and friends occupying a residence (owned or rented) for less than a full year in Scottsdale
  - Visitors staying with friends and relatives that live in Scottsdale.
- **Day Trip Visitors** to Scottsdale.[7]

[4] The terms "visitor," "tourist" and "traveler" are used interchangeably.
[5] Scottsdale Hotel Market includes several immediately adjacent areas including Paradise Valley, adjacent portions of Phoenix and Tempe, and parts of the towns of Carefree, Cave Creek, Fountain Hills, and the Salt River Pima Maricopa Indian Community (SRPMIC).
[6] Other types of paid lodging includes: time share, second home, bed & breakfast, rented home/condo/apt, RV, etc.
[7] As defined by the City of Scottsdale, Day Trip Visitors are domestic overnight tourists staying in accommodations outside of the Scottsdale / Paradise Valley and City of Scottsdale such as hotels, second homes, RV's, Timeshare, Visiting Friends and Relatives (VFR); data from Scottsdale Longwoods International 2015 Visitor Report.

- International Overnight Visitors to Phoenix Metro Area[8]

The data utilized in this section represent the latest data available for the geographies under consideration. The sources of these data include:

- *2015 Arizona vs. Phoenix and Central Region Domestic Overnight Visitors (Summary of Longwoods and Tourism Economics Data)*. Arizona Office of Tourism, 2016.
- *Phoenix and Central Region 2015 Year-end Data Review,* (Summary of Longwoods and Tourism Economics Data). Arizona Office of Tourism, 2016.
- *2015 Arizona Domestic Overnight Visitors (Summary of Longwoods and Tourism Economics Data)*. Arizona Office of Tourism, 2016.
- *Arizona Travel Impacts, 1998-2015*. Dean Runyan Associates. June 2016.
- *City of Scottsdale Visitor Inquiry Study*. Behavior Research Center, Inc. August 2015.
- *Mexican Visitors to Arizona: Visitor Characteristics and Economic Impacts, 2007-2008.* University of Arizona, December 2008.
- *Mexico Market Profile*. Arizona Office of Tourism. July, 2016.
- *Scottsdale 2015 Visitor Report*. Longwoods Travel USA. 2016.
- *Scottsdale Bed Tax Collections, 2007-2016*. City of Scottsdale Economic Development Department. 2016.
- *The Scottsdale/Paradise Valley Tourism Study – Lodging Statistics.* City of Scottsdale Tourism and Events Department, August 2015.
- *Tracking Domestic Visitor volumes for Arizona: 2015 Estimates*. Tourism Economics, 2016.
- *International Visitor Volumes for Arizona: 2015 Analysis.* Tourism Economics, 2016.

Following is an overview of tourism to Arizona as a whole, to Central Arizona, the Phoenix Metro Area and then to the Scottsdale market area. Finally, a summary of the travel market segments defined for DDC.

[8] International visitors not staying in Scottsdale are not included in other categories, so they are accounted for as follows: International overnight visitors includes visitors from Mexican, Canada and Overseas visitors to Arizona. Source: AZ Office of Tourism / Tourism Economics 2014 International Visitor Volumes for Arizona: there were 5.7 million international visitors annually for both 2014 and 2015; 50 percent of International travelers to AZ are assumed to visiting Metro Phoenix.

VISITATION TO ARIZONA

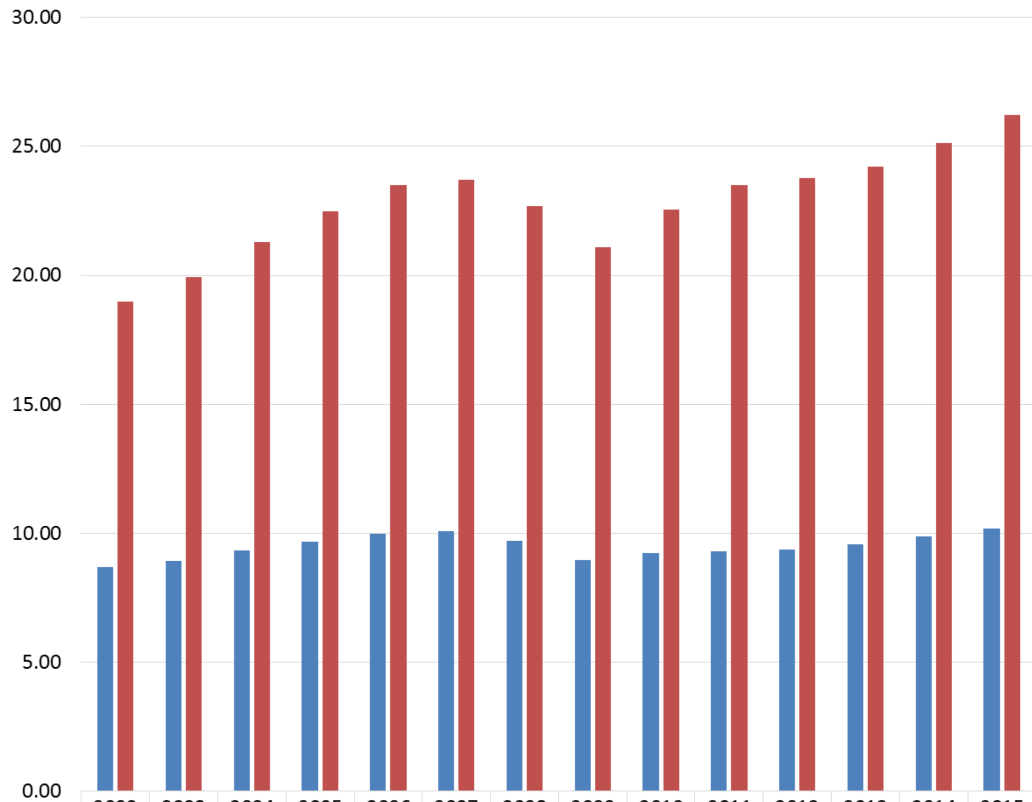
Tourism is an important component of the Arizona economy. In 2015, there were an estimated 36.4 million domestic and 5.7 million international overnight visitors to Arizona, for a total of 42.1 million overnight visitors. In the same year, these visitors spent an estimated $21.0 billion, which accounted for 179,600 jobs, $6.8 billion in employment earnings, and $3.0 billion in federal, state, and local tax revenue.[9]

Domestic Overnight Visitors

The largest segment of overnight travelers was out-of-state domestic visitors at 26.2 million in 2015. In addition, there were 10.2 million Arizona resident overnight visitors and 5.7 million international overnight visitors – the highest volume recorded since before the recession. Data in **Figure V-1** present the trend in domestic overnight travelers to the state by resident and non-resident visitors. Between 2002 and 2007, as well as between 2010 and 2015, the number of domestic overnight visitors to Arizona increased each year. Due to the economic recession and a reduction in travel overall, the number of visitors to the state declined between 2007 and 2009, but have since seen a steady incline.[10]

[9] *Arizona Travel Impacts.* Dean Runyan Associates and Arizona Office of Tourism, June 2016.
[10] *Tracking Domestic Visitor volumes for Arizona: 2015 Estimates.* Tourism Economics, 2016.

Figure V-1
Trend in Arizona Domestic Overnight Visitors (in millions)
by Non-Resident and Resident Visitors, 2002-2015



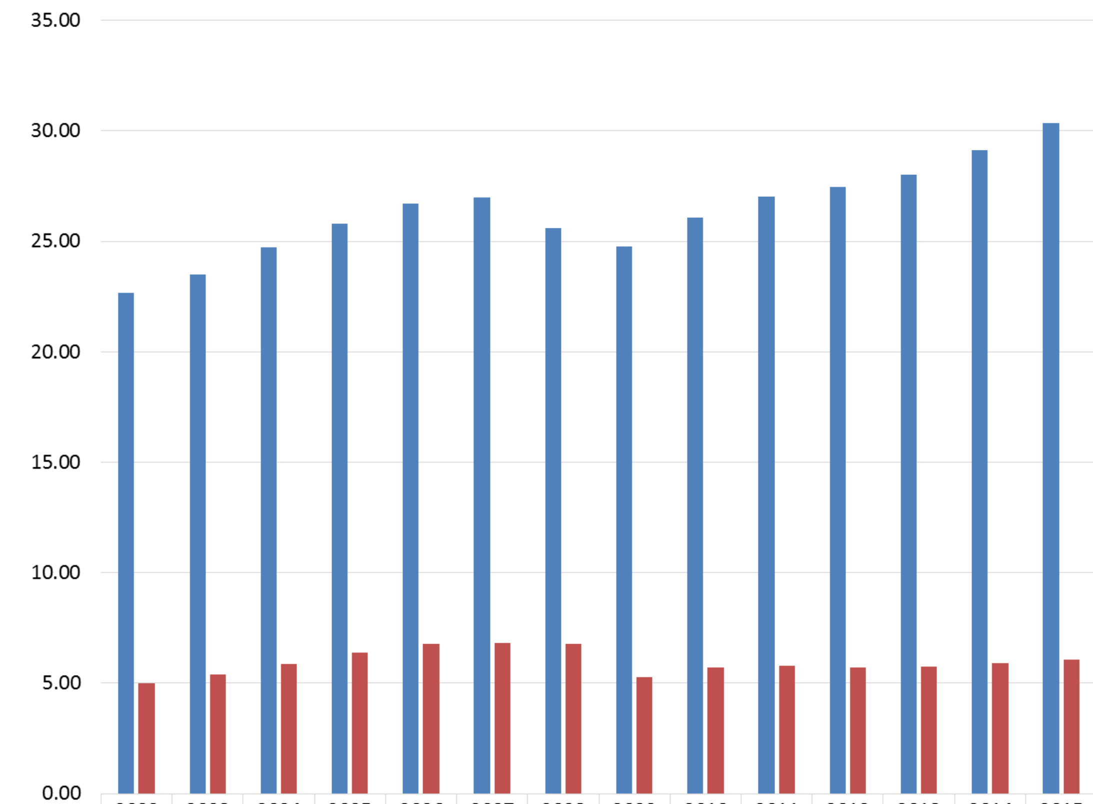
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Overnight Resident	8.68	8.92	9.32	9.66	9.97	10.08	9.70	8.96	9.25	9.31	9.37	9.56	9.89	10.20
Overnight Non-resident	18.98	19.95	21.30	22.48	23.49	23.72	22.69	21.08	22.55	23.50	23.76	24.22	25.14	26.23

Source: Tourism Economics.

Data in **Figure V-2** present the trend in domestic overnight travelers to the state by leisure and business visitors. In 2015, approximately 83 percent or 30.4 million domestic overnight visitors to Arizona were traveling for leisure purposes.[11] Among domestic overnight visitors, 62 percent stayed in paid accommodations. The average overnight leisure travel party size was 2.8 persons.[12]

[11] *Tracking Domestic Visitor volumes for Arizona: 2015 Estimates.* Tourism Economics, 2016.
[12] *2015 Arizona Domestic Overnight Visitors (Summary of Longwoods and Tourism Economics Data). Arizona Office of Tourism, 2016.*

Figure V-2
Trend in Arizona Domestic Overnight Visitors (in millions)
by Leisure and Business Visitors, 2002-2015



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Overnight Leisure	22.66	23.50	24.74	25.78	26.69	27.00	25.60	24.75	26.08	27.02	27.44	28.03	29.14	30.35
Overnight Business	4.99	5.38	5.87	6.37	6.77	6.80	6.79	5.28	5.72	5.79	5.69	5.74	5.90	6.08

Source: Tourism Economics.

International Overnight Visitors

International visitors include overnight visitors from Mexico, Canada and overseas markets. There were an estimated 5.7 million overnight international visitors to Arizona in 2015. Mexican overnight visitors accounted for approximately 66.4 percent of all international travelers, or 3.8 million international overnight visitors. This represents a slight decrease over 2014 visitor volumes from Mexico. In addition, there were an estimated 1.0 million overseas visitors, mostly from Western Europe, South Korea, and China, and 900,000 Canadian visitors.[13]

[13] *International Visitor Volumes for Arizona: 2015 Analysis. Tourism Economics, 2016.*

International Day Visitors

In addition, there were a significant number of Mexican day visitors to Arizona. According to a study conducted by the University of Arizona, there were a total of 24.04 million Mexican visitors crossing the border in 2008. Approximately 84 percent or 20.3 million were day visitors. Most of these day visitors were visiting Arizona border communities, and they are not a major factor in the Phoenix Metro Area travel market. Since 2001, the last time the University of Arizona conducted a study, the number of Mexican overnight visitors increased substantially.[14]

VISITATION TO CENTRAL ARIZONA

The Arizona Office of Tourism (AOT) defines travel regions in the state, including the Phoenix and Central Tourism Region ("Central Arizona"), which is defined as Maricopa and Pinal Counties. Central Arizona drew an estimated 22.1 million domestic overnight visitors in 2015. Travel spending in Central Arizona represented 61.6 percent of all travel spending in Arizona.[15]

Trip Purpose and Activities

In 2015, 83 percent of domestic overnight visitors to Central Arizona were traveling for leisure purposes, or 18.3 million of the 22.1 million visitors to Central Arizona. An estimated 33 percent of those visitors stayed in unpaid accommodations with friends and relatives, compared to about 55 percent staying in hotels or motels.[16] Leisure visitors will be more likely to attend DDC for exhibitions and desert experiences than will business travelers, who may have limited time for non-business activities on their trip. Approximately 17 percent of visitors to the Phoenix and Central region were on business trips in 2015. Business travelers may attend DDC during their free time; or more likely during meetings, corporate and conference / convention events held at DDC. Incorporating

[14] *Mexican Visitors to Arizona: Visitor Characteristics and Economic Impacts, 2007-2008.* University of Arizona, December 2008.
[15] *Arizona Travel Impacts, 1998-2015. Dean Runyan Associates. June 2016.*
[16] Phoenix and Central Region 2015 Year-end Data Review, (Summary of Longwoods and Tourism Economics Data). Arizona Office of Tourism, 2016.

spaces large enough for meetings, events and banquets will create an opportunity for Operational Revenue.[17]

Visitor, Party and Trip Characteristics

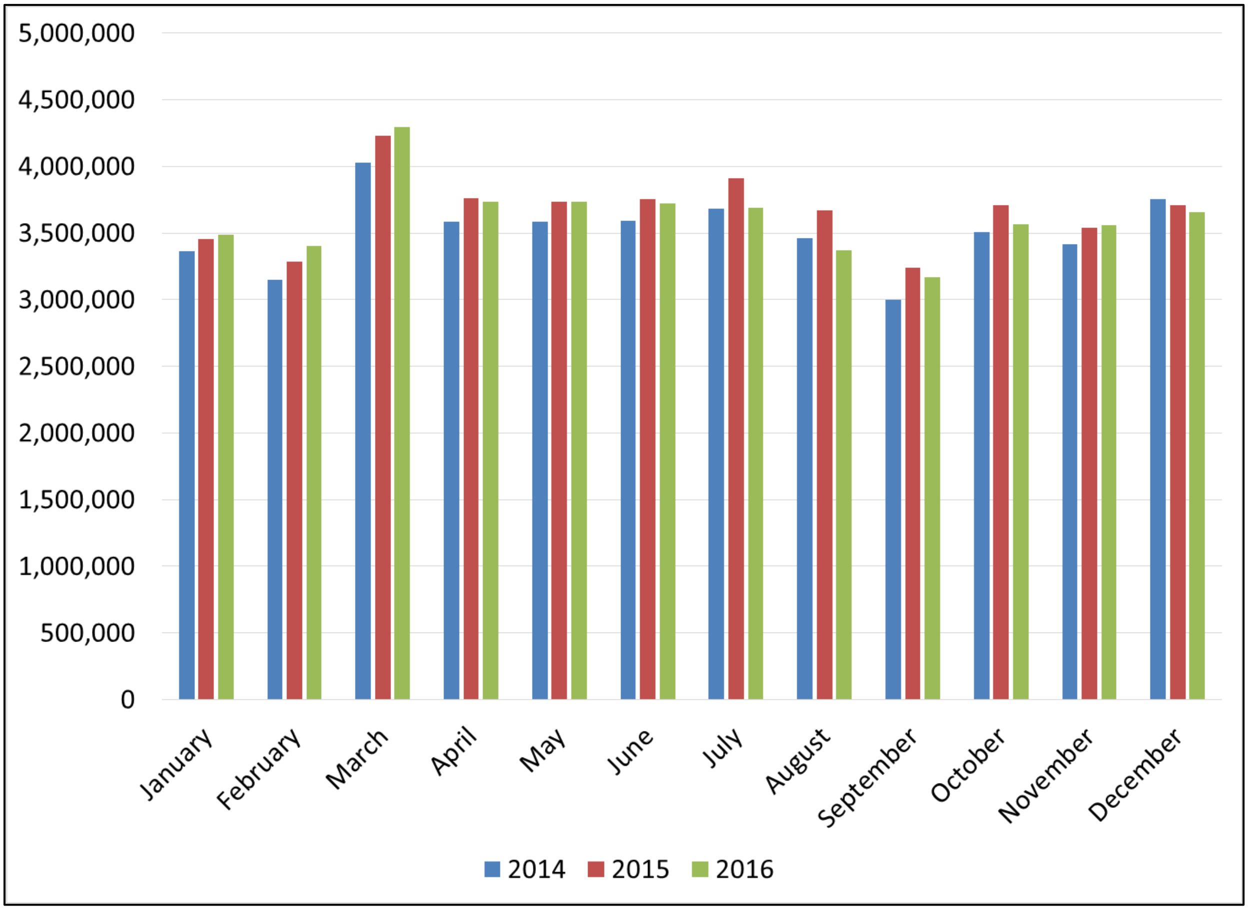
The average visitor to Central Arizona in 2015 was 47 years old and had a household income of $72,238, with average per party per trip expenditures of $857, not including transportation to and from the destination. The average party size was 2.5 persons, and the average length of stay in the region was 5.1 nights. In 2015, 57 percent of overnight visitors to Central Arizona stayed in paid accommodations, a decrease compared to the previous year. While visitors originate all around the United States, the top states of origin are California (20%), Arizona (17%), Illinois (8%), Colorado (5%), and Texas (4%).

Seasonality of Visitation

Data in **Figure V-3** chart the monthly air passenger traffic at Phoenix Sky Harbor International airport for the years 2014 through 2016. The data show that peak airport passenger traffic occurs in March and lower airport passenger traffic in September.

[17] *Phoenix and Central Region 2015 Year-end Data Review, (Summary of Longwoods and Tourism Economics Data). Arizona Office of Tourism, 2016.*

Figure V-3
Monthly Phoenix Sky Harbor International Airport Passenger Traffic
Phoenix Sky Harbor International Airport, 2014-2016



Source: Phoenix Sky Harbor International Airport, ConsultEcon, Inc.

Regional Hotel/Motel Rooms

Central Arizona has experienced an expansion in supply of hotel and motel rooms in recent years, which is an indicator of the area's population growth and growth in popularity as a tourist destination. According to Visit Phoenix, there are approximately 450 hotels in the Greater Phoenix Area, providing more than 62,000 rooms for visitors to Central Arizona, this is an increase from 2010, when there were 436 properties and 60,147 rooms in the region. According to Smith Travel Research data, the annual average occupancy rate in 2014 was estimated at 58.8 percent. Scottsdale and its immediate local area represent about a quarter of the regional room supply with an estimated 16,300 rooms. [18]

[18] Source: The Scottsdale/Paradise Valley Tourism Study — Lodging Statistics Aug, 2015.

Seasonal Visitors and Resident Guests

In addition to overnight visitors in paid accommodations and private homes of Central Arizona residents, there are second homeowners and their family and guests staying overnight seasonally in the region. Census data indicate that there were an estimated 101,000 housing units identified for seasonal, recreational, or occasional use.[19] With an average of 10 visitors, including homeowners, family and guests per seasonal unit, there are an estimated 1.0 million additional overnight visitors classified as seasonal visitors.

Sky Harbor Terminal Modernization

The Phoenix City Council has approved a $950 million plan to among other improvements, modernize terminal 3, add gates to Terminal 4, and extend Sky Train service from Phoenix Sky Harbor International Airport to the Rental Car Center with full implementation planned by 2020. The airport's forecasts call for 48 million passengers in 2021, up about 9 percent from 44 million in 2015. The modernization will support the growth in tourism that has occurred and will support continued tourism growth.

VISITATION TO SCOTTSDALE

Due to its natural beauty, desert surroundings, and local attractions, Scottsdale has a long history of tourism. In 2015, overnight visitors to Scottsdale spent an estimated total of $1.1 billion, and those staying in hotels generated $17.3 million in city bed taxes.[20] Following is a discussion of the estimate of the typical annual number of overnight visitors to Scottsdale and also, the estimated annual number of Domestic (US resident) Day Trip Visitors to Scottsdale.

Scottsdale Market Area for Hotels and Resorts

The Scottsdale/Paradise Valley Area had more than 86 resorts and hotels, with over 16,300 rooms as of August 2015. (This is about 20 percent of the estimated 450 hotel/motel rooms in the Phoenix Metro Area in 2014.) The Scottsdale Market Area is defined as:

[19] U.S. Census Bureau, 2011-2015 American Community Survey 5-year Estimates
[20] *Scottsdale Bed Tax Collections, 2007-2015.* City of Scottsdale Economic Development Department, 2015.

- **Scottsdale** – Within the corporate limits of the City of Scottsdale
- **Paradise Valley** – Within the corporate limits of the Town of Paradise Valley
- **Other** – Within the Scottsdale/Paradise Valley market area; including portions of the cities of Phoenix and Tempe, as well as portions of the towns of Carefree, Cave Creek, and Fountain Hills.

The average room rate for market area hotels in 2014 was $169.09, up 7 percent from $158.07 in 2013. The occupancy rate was 67.0 percent in 2014, a rise from the 2013 occupancy rate of 64.9 percent, but still lower than the market peak of 70.4 percent in 2004.[21]

Estimated Scottsdale Travel Market Segments

Following are the travel (or tourist) market segments to Scottsdale that have been identified as market segments for DDC.[22] These include travelers who stay overnight in Scottsdale and those who are on day-trips to Scottsdale. These are based on available data and they have been analyzed to avoid double counting between market segments. These are deemed to be the most relevant market segments to visit DDC.

- *Travelers Staying Overnight in Scottsdale*
  - Hotel Visitors - Domestic and International – 1,940,000
  - Travelers in other paid accommodations – 390,000
  - Visiting Friends and Relatives (VFRs) – 348,000
  - Staying in Seasonal homes 159,000
- *Daytrip Travelers to Scottsdale*
  - *Domestic Day Trip Visitors to Scottsdale* – 4,130,000 [23]
  - *Estimated International Day Trip Visitors to Scottsdale* – 280,000

[21] *The Scottsdale/Paradise Valley Tourism Study – Lodging Statistics.* City of Scottsdale Tourism and Events Department, August 2015.
[22] Note, this is not an estimate of all Phoenix Area travelers, but a summary of targeted travel market segments for DDC focused on the volume of visits to Scottsdale by tourists annually.
[23] This market segment is an estimate of day-trips to Scottsdale for recreational, entertainment and cultural experiences. It includes overnight travelers staying elsewhere in the Phoenix Metro Area including commercial accommodations, and in unpaid accommodations such as Visiting Friends and Relatives. This category also includes Arizona residents who make day trips of over 50 miles one-way to Scottsdale; it does not include residents of the Phoenix Metro Area making day-trips to Scottsdale.

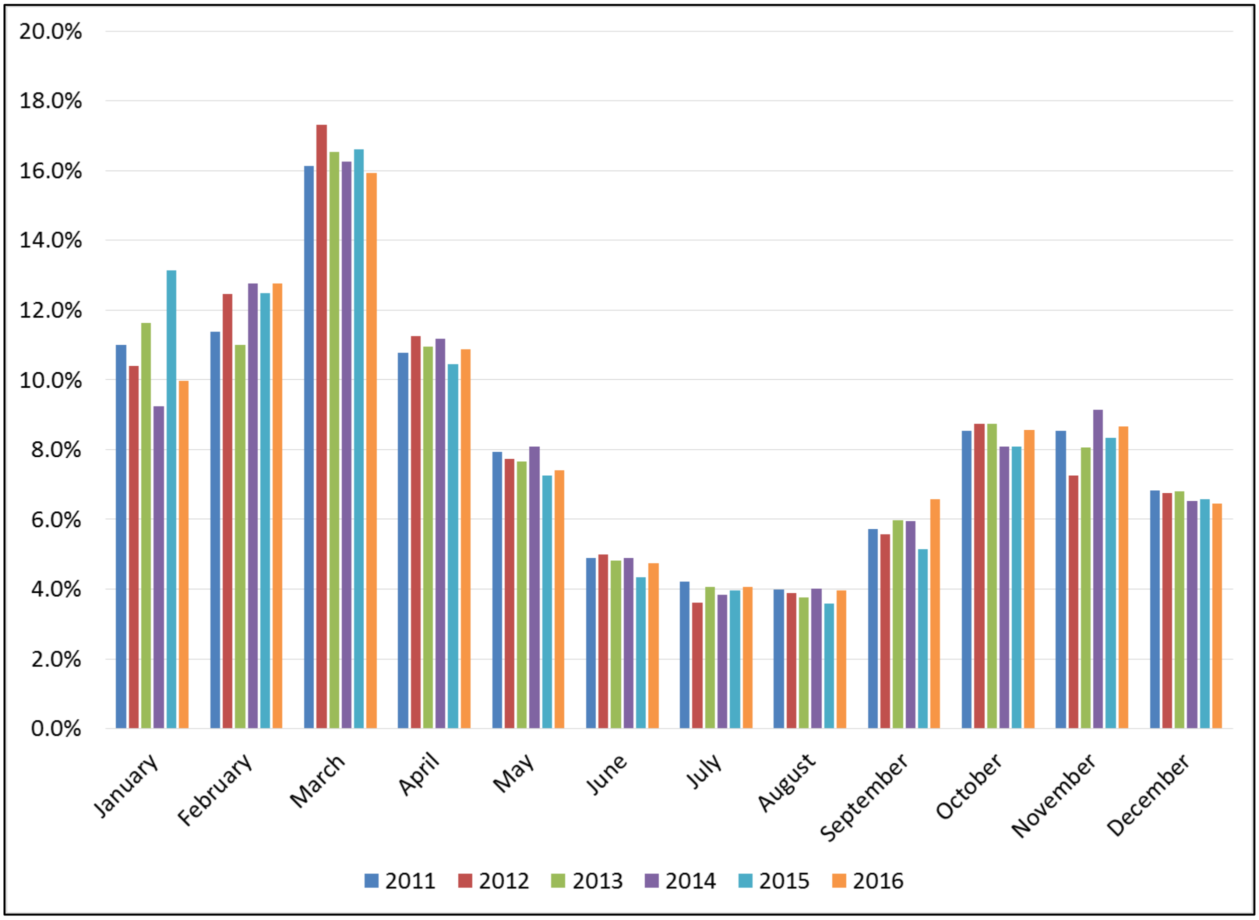
Therefore, in a typical current year, there are an estimated 2,837,000 overnight person trips to Scottsdale and 4,410,000 day trips by tourists staying elsewhere in the Phoenix Metro Area or who are on long daytrips from their residence outside of the Metro Area. The data and analyses supporting these estimates are included in **Appendix B**.

Seasonality of Visitation

Data in **Figure V-4** chart the 6-year monthly bed tax collections for the City of Scottsdale, represented as a percent to total bed tax collections for the year from 2011 through 2016. These data provide an indication of the seasonality of hotel occupancy in Scottsdale hotels. The peak season for tourism in Scottsdale is mid-January through mid-April, the low season from mid-June through mid-September, and shoulder seasons between mid-April and mid-June and mid-September through early- to mid-January.[24] It should be noted that the seasonality shown is skewed by the higher prices of hotel rooms in the peak seasons.

[24] *Scottsdale Bed Tax Collections, 2007-2016.* City of Scottsdale Economic Development Department, 2017.

Figure V-4
Monthly Bed Tax Collections as a Percent to Total Annual Bed Tax Collections, City of Scottsdale, 2011-2016



Source: City of Scottsdale Economic Development Department, ConsultEcon, Inc.

Hotel Guest Spending

Estimated median spending per party per day in 2015 was $353 among overnight visitors. Scottsdale Market Area overnight visitors' estimated percentage of expenditures were as follows:

- Lodging 41 percent,
- Food and beverage 27 percent,
- Retail 13 percent,
- Local transportation 8 percent, and
- Entertainment and recreation 11 percent.

It is important to note that the spending per person per day does not include travel expenses to and from the destination. Daily visitor parties by spending cohort were distributed as follows:

- Under $100 23 percent,
- $100 to $199 11 percent,
- $200 to $299 11 percent,
- $300 to $399 10 percent,
- $400 to $499 7 percent,
- $500 to $749 14 percent, and
- $750 or over 24 percent.

Scottsdale Visitor Profile

As reported in the *City of Scottsdale Visitor Inquiry Study* conducted by Behavior Research Center, Inc. of inquirers to the Scottsdale CVB, the typical Scottsdale visitor (i.e. inquirers who visited) was 61 years old with a median annual income of $92,000 in 2015, slightly lower than previous years. The following are additional insights into Scottsdale visitors.[25]

- About 42 percent of visitor parties had incomes exceeding $100,000.
- The median length of stay by Scottsdale visitors was 5.4 nights.
- The median party size of visitors to Scottsdale was 2.6 persons.

Data in **Table V-1** show the percent of traveler parties containing different age segments for 2009, 2012, and 2015. In 2015, an estimated 16 percent of travel parties included children, compared to 24 percent in 2012 and 20 percent in 2009. With activities geared towards families and children, DDC will have the potential to draw more travel parties with children, thereby expanding Scottsdale's tourism base. Moreover, the existing, in-place travel pattern indicates a substantial number of families visiting Scottsdale that will be a target market for DDC.

[25] *City of Scottsdale Visitor Inquiry Study.* Behavior Research Center, Inc. August 2015.

Table V-1
Percent of Parties Containing Persons of Different Age Demographics
2009, 2012, 2015

Year	5 or younger	6-17	18-34	35-49	50-64	65+
2009	7%	13%	14%	39%	50%	24%
2012	10%	14%	13%	24%	58%	30%
2015	6%	10%	12%	50%	57%	38%

Note: The total of all categories exceeds 100% as many parties include people in different age groups.
Source: City of Scottsdale Visitor Inquiry Study, August 2009/August 2015 Behavior Research Center, Inc.

Visitor Origin

Scottsdale visitors originated primarily from the Western and Midwestern regions of the United States in 2015. The mix of visitor origin has shifted in recent years, with a smaller share coming from the Northeast and a greater share coming from the West. This phenomenon could be related to the economic recession – just after the economic recession, many tourists opted to travel closer to home. The top states of origin for overnight visitors in 2015 were California, Arizona, Illinois, Colorado, and Florida.[26] Many Scottsdale visitors come from the largest metropolitan areas in the country, and therefore, are exposed to some of the largest and most visited museums and cultural destinations in the country. DDC will have to live up to expectations about quality and content of visitor experience of culturally savvy Scottsdale visitors.

Lifestyle Activity Profile by Visitor Origin

DDC will be particularly attractive to tourists who engage in nature, educational, and cultural activities that are relevant to the Sonoran Desert and the environment that DDC will interpret.

[26] *Scottsdale 2015 Visitor Report.* Longwoods International. 2016.

Data in **Table V-2** summarize the participation in active lifestyle activities relevant to DDC, including backpacking, hiking, and walking for exercise for the top 4 states of visitor origin: California, Illinois, Colorado, and Florida, and compared against lifestyle activities for the City of Scottsdale and the State of Arizona. The data shows that Colorado Visitors are the most actively engaged in active lifestyle activities, with a higher percentage of the population participating in backpacking, hiking, and walking for exercise than any other state of visitor origin, as well as compared to Arizona and the United States as a whole. Only the City of Scottsdale matches Colorado for propensity to engage in those activities.

Table V-2
Top Visitor States of Origin Participation in Active Lifestyle Activities, 2016
Proposed Desert Discovery Center

	Total Number of Adults	Participated in Backpacking in last 12 Months			Participated in Hiking in last 12 Months			Participated in Walking for Exercise in last 12 Months		
		Number	Percent	MPI	Number	Percent	MPI	Number	Percent	MPI
California	29,789,749	865,542	2.9%	95	3,134,822	10.5%	106	7,865,907	26.4%	99
Illinois	10,031,739	312,503	3.1%	102	1,008,741	10.1%	101	2,752,752	27.4%	103
Colorado	4,160,414	149,800	3.6%	118	485,538	11.7%	118	1,192,095	28.7%	107
Florida	16,097,594	453,857	2.8%	92	1,465,709	9.1%	92	4,252,631	26.4%	99
City of Scottsdale	***193,561***	***7,325***	***3.8%***	***124***	***26,721***	***13.8%***	***139***	***62,083***	***32.1%***	***120***
State of Arizona	***5,224,309***	***148,066***	***2.8%***	***93***	***495,382***	***9.5%***	***96***	***1,361,473***	***26.1%***	***97***

Note: MPI stands for Market Potential Index and compares the geography to that of the U.S. Sample as a whole. A higher index indicates a higher propensity to engage in those activities.
Source: ESRI and ConsultEcon, Inc.

In addition to being attractive to visitors who are engaged in active lifestyle activities, DDC will be of interest to visitors who tend to engage in leisure and education activities. Data in **Table V-3** summarize the participation in leisure and education activities relevant to DDC, including visiting an art gallery, visiting a museum, and visiting a zoo. The data show that the California and Colorado are the most engaged in leisure and education activities, with a higher proportion of the population of those states visiting art galleries and museums in the past year compared to the other geographies. Further, the higher Market Potential Index for those states indicates a higher propensity to engage in those activities compared to the United States as a whole. Again, the City of Scottsdale maintains a higher proportion of the population engaging in cultural activities than visitor origin states.

Table V-3
Top Visitor States of Origin Participation in Leisure and Education Activities, 2016
Proposed Desert Discovery Center

	Total Number of Adults	Participated in Backpacking in last 12 Months			Participated in Hiking in last 12 Months			Participated in Walking for Exercise in last 12 Months		
		Number	Percent	MPI	Number	Percent	MPI	Number	Percent	MPI
California	29,789,749	865,542	2.9%	95	3,134,822	10.5%	106	7,865,907	26.4%	99
Illinois	10,031,739	312,503	3.1%	102	1,008,741	10.1%	101	2,752,752	27.4%	103
Colorado	4,160,414	149,800	3.6%	118	485,538	11.7%	118	1,192,095	28.7%	107
Florida	16,097,594	453,857	2.8%	92	1,465,709	9.1%	92	4,252,631	26.4%	99
City of Scottsdale	***193,561***	***7,325***	***3.8%***	***124***	***26,721***	***13.8%***	***139***	***62,083***	***32.1%***	***120***
State of Arizona	***5,224,309***	***148,066***	***2.8%***	***93***	***495,382***	***9.5%***	***96***	***1,361,473***	***26.1%***	***97***

Note: MPI stands for Market Potential Index and compares the geography to that of the U.S. Sample as a whole. A higher index indicates a higher propensity to engage in those activities.

Source: ESRI and ConsultEcon, Inc.

Scottsdale Visitor Trip Activities

Data in **Table V-4** summarize activities that Scottsdale visitors participated in during recent years. The high degree of shopping is typical of tourists to most urban destinations. While there had been increases and decreases in interest in a number of culturally oriented activities and events such as Native American arts and culture, museums, western culture and attractions during the 2011 through 2015, the rise in levels of participation in "Outdoor Desert Activities" has been dramatic and may well be tied to the expansion of facilities and trails at the McDowell Sonoran Preserve and perhaps to increased public interest in these types of experiences. This level of growing interest in Outdoor Desert Activities is extremely important to DDC's potential for market success. DDC as proposed will diversify and enhance Scottsdale's tourism offerings with its outdoors and desert focus. It will also be a high-profile destination / experience of the type that is important to the tourism economy and quality of life for communities such as Scottsdale.

Table V-4
Scottsdale Visitors Activity Participation, 2010-2015

	2015	2014	2013	2012	2011
Dining	97%	93%	96%	95%	95%
Visit downtown Scottsdale	88	80	84	83	NA
Shopping	86	85	86	87	89
Day trips to other locations in Arizona	78	68	70	71	66
Outdoor desert activities	47	46	43	38	38
Native American arts and culture	44	40	42	42	43
Western culture and attractions	44	38	47	46	44
Art galleries	43	40	41	38	39
Events	42	32	35	14	NA
Museums	40	38	39	38	41
Overnight trips to other locations in Arizona	38	27	26	30	30
Nightlife	33	33	30	31	36
Golf	26	20	21	23	29
Gaming entertainment	20	16	19	22	NA
Spa/rejuvenation	19	24	18	23	26
Performing arts	14	10	14	15	14
Children's activities	8	14	11	14	10

NA = Not Asked

Source: City of Scottsdale Visitor Inquiry Study, 2015; the most recent available.

Summary

As a major conservation and education destination, DDC has the potential to draw visitation from tourists in Scottsdale, as well as tourists staying in other locations throughout Central Arizona. The tourist market segments for the proposed DDC include overnight visitors in both paid and non-paid accommodations, seasonal residents, day trip visitors originating from within Arizona, as well as overnight visitors in other parts of Arizona, and international overnight visitors.

Overall, the market for tourism in Arizona has experienced continual growth and change since the recession of 2007-2008. In 2015, Arizona welcomed an estimated 36.4 million domestic and 5.7 million international overnight visitors, generating substantial visitor spending and economic impact on the state. A large concentration of this impact is in Central Arizona, also known as the Phoenix Metropolitan Area, which welcomed an estimated 22.1 million visitors in 2015.

Scottsdale has long been an important tourism destination in Central Arizona, known for its spas, resorts, golf courses, and shopping destinations, as well as rich desert scenery. In 2015, overnight visitors to Scottsdale spent an estimated $1.1 billion, and those in hotels generated an estimated $17.3 million in city bed taxes. Overall, there are an estimated 2.8 million overnight visitors and 4.4 million day visitors to Scottsdale in a typical current year. Among overnight visitors, 1.9 million are domestic and international hotel visitors, based on hotel occupancy estimates; 390,000 are travelers in other paid accommodations, based on an estimate that 20 percent relative to hotel visitors; 348,000 visitors staying with friends and relatives, estimated based on 1.5 visitors per resident of Scottsdale; and, 159,000 visitors in seasonal homes, estimated based on 10 visitors per seasonal home. The 4.4 million day trip visitors are made up of 4.1 million domestic day trippers, based on data provided by the City of Scottsdale and 280,000 international day trip visitors who stay overnight in other parts of Central Arizona.

The peak season for visitation to Scottsdale is the spring. Median spending per party in 2015 was estimated at $353 among overnight visitors, with 41 percent spent on lodging and 11 percent spent on entertainment and recreation. About 42 percent of visitors to Scottsdale had household incomes exceeding $100,000 annually. Visitor parties were made up of a median of 2.6 persons who had a median length of stay of 5.4 nights. Visitor parties are increasingly comprised of fewer children and more adults aged 65 and older. The top states of origin for overnight visitors were California, Arizona, Illinois, Colorado, and Florida. Top visitor activities included dining, visiting downtown Scottsdale, shopping, and outdoor desert activities.

Overall, the tourist market in Scottsdale is experiencing continued growth and change, with visitor interests including not only events, resort activities, golf, art, and shopping, but also cultural activities, family activities, and outdoor recreation. The trend in the tourism industry emphasizes that travelers seek to experience authenticity in their travels, especially in natural settings. The addition of the DDC will add accessibility to the desert for tourists who do not know how or are otherwise reluctant to enter the desert environment without preparation or interpretation. Further, the DDC will diversify and enhance Scottsdale's tourism offerings with its outdoors and desert focus. As a high-profile destination, the offerings at the DDC will be important to the tourism economy and quality of life for the local community.

REGIONAL CULTURAL AND NATURE BASED DESTINATIONS

The Phoenix Metro Area, which includes Scottsdale, offers many popular attractions, professional sports teams, major shopping malls, outdoor recreation, and a substantial accommodations base. In addition, there are a number of cultural and nature based destinations, including museums, parks, a zoo, botanical garden, educational and cultural attractions, and historic sites. In addition to leisure tourism, the Phoenix Metro Area is also an active business and education center that draws a number of business and convention travelers. In 2008, a $600 million expansion project nearly tripled the size of the Phoenix Convention Center, making it one of the top 20 convention venues in North America, offering more 900,000 square feet of rentable space and more than 2 million square feet total. A 2014 survey ranked Phoenix the second most popular destination for trade shows and events in the country. Smaller convention venues are located throughout the Greater Phoenix area.

The nature of local attractions, their attendance and pricing levels inform the evaluation of attendance potential at DDC. Data in **Table V-5** show selected regional cultural and nature based destinations and provide a summary of attendance, ticket prices, and descriptions. The selected facilities included those with 20,000 or more reported attendance or a Scottsdale location.

Table V-5
Selected Cultural and Nature Based Attractions
Phoenix Metropolitan Area
(Ranked by Attendance if Available)

Attraction/ Location	Annual Attendance	Admission Pricing	Description
Phoenix Zoo Phoenix	1,300,000 (AZA)	$24.95 adult (14+) $19.95 senior $14.95 child (3-13)	The Phoenix Zoo has 125 acres of exhibits, with trails leading through an African savanna, a tropical rainforest and the Arizona environs, with wildlife of the respective regions.
Wildlife World Zoo, Aquarium, and Safari Park Litchfield Park	450,000 (AAM/OMD est.)	$39.99 adult $19.99 child 3-12 After 5 pm (Aq only) $16.99 adult $ 8.99 child 3-12	Privately owned and operated, the Wildlife World Zoo first opened its doors in 1984. The Zoo opened an aquarium in 2008. The Zoo and Aquarium contain Arizona's largest collection of exotic animals with over 3,000 animals representing nearly 600 species.
Desert Botanical Gardens Phoenix	380,259 (AAM/OMD, accurate)	$24.95 adult $12.95 child 3-12	The Desert Botanical Garden showcases 50 acres of outdoor exhibits, including rare, threatened and endangered plant species from around the world. Focus is on desert plants and environments.
Arizona Science Center Phoenix	300,000 (AAM/OMD, accurate)	$18.00 adult $13.00 child 3-12	Collections include 40,000 SF of interactive exhibits on human body, psychology, networks, weather, aerospace, geology & physics, a 285-seat giant screen IMAX theater, and 200-seat planetarium.
Phoenix Art Museum Phoenix	285,920 (AAM/OMD, accurate)	$18.00 adult $15.00 senior $13.00 student w/ id $ 9.00 child 6-17	One of the largest art museums in the Southwest, the museum houses a permanent collection of some 16,000 works of art spanning the centuries and also includes a popular miniatures collection and a "Please Touch" children's gallery, as well as a café and gift shop.
Musical Instrument Museum Phoenix	200,000 (AAM/OMD, est.)	$20.00 adult $15.00 teen (13-19) $10.00 child (4-12)	Opened on April 24, 2010, the Musical Instrument Museum contains collections of instruments from around the world; history & diversity of instruments; music & world cultures; audio & video. Library; 80,000 sq. ft. exhibit space; restaurant; classrooms. Museum-related items for sale. Total square footage: 200,000 SF.

Table V-5 (continued)
Selected Cultural and Nature Based Attractions
Phoenix Metropolitan Area
(Ranked by Attendance if Available)

Attraction/ Location	Annual Attendance	Admission Pricing	Description
The Heard Museum Phoenix	200,000 (AAM/OMD, est.)	$18.00 adult $13.50 senior $ 7.50 student w/id $ 7.50 child 6-17	A leading U.S. showcase of Native American art and culture, the Heard Museum interprets the cultures of Native American tribes in the region through exhibits, demonstrations and live performances and displays the work of contemporary Native American artists. Artists demonstrate their work during the week and musicians perform on most weekends.
Arizona Museum of Natural History Mesa	124,229 (AAM/OMD, accurate)	$12.00 adult $10.00 senior $ 8.00 student w/id 13+ $ 7.00 child 3-12	The Arizona Museum of Natural History is dedicated to inspire wonder, respect and understanding for the natural and cultural history of the Southwest. Exhibits focus on natural history from 4.5 billion years ago to present and include dinosaurs, fossils and minerals, and native cultures, among others. Owned and operated by the City of Mesa. Facility is over 80,000 square feet.
Taliesin West Scottsdale	110,000[27]	Insights Tour (1.5 hrs, daily, starting 9 AM (some "dynamic" pricing) $34.00 adults $30.00 seniors / students / military $19.00 youth (6-12)	Taliesin West was architect Frank Lloyd Wright's winter home and school in the desert; today. Today it houses the Frank Lloyd Wright Foundation, a school for architects, and is open to the public for tours.
Boyce Thompson Arboretum Superior	85,000 (AAM/OMD, est.)	$12.50 adult $ 5.00 child 5-12	Near Superior, AZ, the University of Arizona's Boyce Thompson Arboretum brings together plants from the Earth's many and varied deserts and dry lands. Approximately 3,200 different desert plants can be found within the arboretum, and most of them can be seen along the 1.5 mile main trail. During wildflower season, the Boyce Thompson Arboretum is especially popular, displaying all the varied colors of the desert. More than 250 species of birds have been recorded at the Boyce Thompson Arboretum.

[27] "Energizing Taliesin West: Celebrating Frank Lloyd Wrights' Legacy of Innovation and Arizona's Leadership in Sustainable Energy Deployment." Big Green Zero, 2013.

Table V-5 (continued)
Selected Cultural and Nature Based Attractions
Phoenix Metropolitan Area
(Ranked by Attendance if Available)

Attraction/ Location	Annual Attendance	Admission Pricing	Description
Desert Caballeros Western Museum Wickenburg	74,000 (AAM/OMD, est.)	$12.00 adult $10.00 senior Free – child 17 & under	Collection includes cowboy memorabilia, western art, Native American art and artifacts, minerals and gems, and historic period rooms.
i.d.e.a. Museum Mesa	70,546 (AAM/OMD, accurate)	$8.00 child 1 + and adult	Hands-on fine arts organization for children and adults with a mission to encourage visitors to experience their world differently through art, creativity, and imagination. Partnership between City of Mesa and the i.d.e.a. Museum nonprofit. Opened in 1978 as the Arizona Museum for Youth; name changed February 6, 2014.
Pioneer Living History Museum Phoenix	65,000 (AAM/OMD, est.)	$10.00 adult $8.00 senior & veteran $8.00 youth 6-18	This 90-acre living history complex features over 20 late 19th-century homes & shops, pioneer life artifacts, agricultural items & machinery, Arizona history memorabilia, a day theatre and restaurant, as well as a gift shop.
Arizona State Capitol Museum Phoenix	60,000 (AAM/OMD, accurate)	No charge	Housed in the restored Capitol Building, this museum presents programs and exhibits about the government of the Arizona Territory and the early days of statehood.
Arizona State University Art Museum Tempe	51,000 (AAM/OMD, accurate)	No charge	Art Museum & gallery feature collections of contemporary art, including new media, American & European print collection- 15th century to present, contemporary ceramics, Latin American art, research library, seminar rooms, gift shop.
Superstition Mountain Museum Apache Junction	50,000 (AAM/OMD est.)	$5.00 adult $4.00 senior Free – child under 18 with adult	The Superstition Mountain Museum collects, preserves and displays the artifacts, history and folklore of the Superstition Mountains, Apache Junction and the surrounding region.
Scottsdale Museum of Contemporary Art Scottsdale	45,030 (AAM/OMD, accurate)	$10.00 adult $7.00 student Free – child 15 & under	Museum features collections of modern & contemporary paintings, sculpture, prints, drawings, photos, architecture and design, outdoor sculpture garden, gift shop.

Table V-5 (continued)
Selected Cultural and Nature Based Attractions
Phoenix Metropolitan Area
(Ranked by Attendance if Available)

Attraction/ Location	Annual Attendance	Admission Pricing	Description
Pueblo Grande Museum and Archaeological Park Phoenix	44,165 (AAM/OMD, accurate)	$6.00 adult $5.00 senior $3.00 child 6-17	More than 1,000 years old, these ruins are from a Native American village and the artifacts unearthed from the area. Features include hands-on activities, hikes and tours.
Hall of Flame Museum of Firefighting, Phoenix	35,000 (AAM/OMD, accurate)	$7.00 adult $6.00 senior $5.00 student 6-17 $2.00 child 3-5	The Hall of Flame has about an acre of fire history exhibits, with over 90 fully restored pieces of fire apparatus on display, dating from 1725 to 1969. The Hall of Flame sponsors the National Firefighting Hall of Heroes, which honors firefighters who have died in the line of duty or who have been decorated for heroism.
Mesa Historical Museum Mesa	28,000 (AAM/OMD est.)	$5.00 adult $4.00 senior $3.00 youth 3-12	The mission of the Mesa Historical Museum is to preserve and create interest in the tangible evidences of local and regional communities and of settlement and development of Mesa, Arizona.
American Heart Association Halle Heart Children's Museum Tempe	28,000 (AAM/OMD est.)	$5.00 ages 4 and older	The Halle Heart Center Museum features 16,000 square feet of collections of medical equipment, hands-on exhibits, library, 50-seat large screen & interactive stage, TV theater, activity center, electric industrial demonstration kitchen.
Tempe History Museum Tempe	25,316 (AAM/OMD, accurate)	No charge; donations accepted	Museum features collections of late 19th & earth 20th century domestic artifacts, farm & ranch equipment, business equipment, photos, & archives, gift shop. The Museum was expanded and re-opened in late Feb. 2010.
Shemer Art Center and Museum Phoenix	25,000 (AAM/OMD est.)	Free – Suggested donation $7.00 per person or $10.00 per couple Admission fee for some special events	The Shemer Art Center and Museum is a nonprofit historical site and family-oriented art education center and museum. Shemer offers a variety of fine art classes for all ages as well as a monthly professional development lecture series. Their exhibitions include traditional and nontraditional works by contemporary Arizona artists.

Table V-5 (continued)
Selected Cultural and Nature Based Attractions
Phoenix Metropolitan Area
(Ranked by Attendance if Available)

Attraction/ Location	Annual Attendance	Admission Pricing	Description
Arizona Historical Society Museum at Papago Park Tempe	22,500 (AAM/OMD est.)	$12.00 adult $10.00 senior $8.00 youth 7-17 Free ages 6 and under	History Museum features collections of 19th & 20th-century items, china, silver, decorative arts, textile, clothing, tools, photos, books, maps, works by Arizona artists. Facilities include library of 20th-century Arizona & Western history, 272-seat auditorium, 50-seat theater, catering kitchen, outdoor exhibitions. 23,000 SF of exhibition space.
Western Spirit: Scottsdale's Museum of the West Scottsdale	NA	$13.00 adult $11.00 senior & active military $ 8.00 student with ID and child 6-17	This nonprofit celebrates the story of the American West through exhibitions, educational programs and community outreach. The museum, opened in January 2015, is 45,000 square feet and features exhibitions spanning the history, both factual and fictional, and future of the American West.
Hoo-Hoogum Ki Museum Scottsdale	NA	No charge	Collections featuring Salt River Pima-Maricopa cultural heritage & history; Pima basketry; Maricopa pottery; native dress; period furnishings; personal artifacts; sculpture; artwork; gift shop.
African-American Multicultural Museum Scottsdale	NA	No charge; donations accepted	Museum features exhibits on African-American art; history; and culture. Open limited hours Thurs.-Sat., other times by appointment.
Commercial Attractions			
OdySea Aquarium Scottsdale	NA	$34.95 adult 18-61 $32.95 senior 62+ $29.95 student 13-17 $24.95 child 3-12	OdySea Aquarium opened in September 2016 as part of OdySea in the Desert – a 35-acre complex including the 2-million gallon Aquarium with 50 exhibits and 30,000 marine animals, Butterfly Wonderland and Dolphinaris as well as restaurants, retail, a carousel and a mirror maze. Additional attractions are planned as part of ongoing expansion.
Legoland Discovery Center Arizona Tempe	NA	$22.00 onsite $17.00 online	Opened in April 2016, the Legoland Discovery Center at Tempe's Arizona Mills mall features two Lego rides, a 4D cinema, and large-scale Lego models — including local landmarks.

Source: Facilities listed; *Official Museum Directory May 2017*; and ConsultEcon, Inc.

For a metropolitan area with over 4.4 million in population that is rapidly growing, there are few cultural and nature based destinations that achieve high levels of attendance, which indicates that there is room to grow within the market. Attendance at the top tourist attractions in Phoenix Metro Area ranges up to approximately 1.3 million at the Phoenix Zoo, which has the largest number of visitors of the profiled attractions. There are six cultural/nature based destinations that draw an estimated 200,000 to 400,000 visitors annually, including the World Wildlife Zoo and Aquarium, Desert Botanical Garden, Arizona Science Center, the Heard Museum, the Musical Instrument Museum and Phoenix Art Museum. Taliesin West in Scottsdale has an estimated annual attendance of 110,000.

Ticket prices at local attractions vary greatly, from $2.00 at some of the smaller venues to $39.99 at the Wildlife World Zoo. The most popular facilities generally charge between $10.00 and $20.00 for adult admission. Ticket prices at DDC should be in line with other attractions in the Phoenix Metro Area.

Newly Opened Facilities

The South Mountain Environmental Education Center is a joint project between the City of Phoenix Parks and Recreation Department and the Arizona Center for nature Conservation. The Center was re-opened on February 13, 2016, after being closed due to budget constraints for various periods since June 2010, most recently in January 2015. The 10,000-square foot facility was renovated by the Arizona Center for Nature Conservation before reopening this year. Located at the South Mountain Park and Preserve, a 16,000 acre municipally owned and operated park, the education center serves community residents, schools, and the public at large through nature education programming, science investigations, and hands on activities.

There are several new local developments that may affect the competitive environment, including a number of retail shops, a showcase of international restaurants, and an indoor skydiving attraction, opened in January 2017. The Arizona Mills Mall in Tempe also features recreational activities, including the SEA LIFE Arizona Aquarium and a 25-screen Harkins Luxury Theater.

Other Local Attractions

In addition to the diverse array of cultural and nature based destinations described in the table, there are a number of other local attractions, including mixed-use destinations, parks and recreation, and important Scottsdale events, which draw large numbers of tourists. The following examples provide insight into the competitive context for DDC and may be illustrative to developing visitor experience and facility plans due to the existing market appeal.

Mixed-Use Destinations

Mixed-use destinations, such as parks and recreation venues, are popular places for visitors to go. Some of the more popular of these include:

- **Papago Park –** Located in Phoenix and operated by the city's Parks and Recreation department, the park covers 1,200 acres and has numerous picnic sites with verandas, tables, grills, water and electricity. The Park also contains fishing lagoons, bike paths, and a golf course. Two of east Phoenix's best known landmarks are in the Park, Hole-In-The-Rock, a natural geologic formation; and Hunt's Tomb, a white pyramid burial place of Arizona's first governor. The park is also home or adjacent to many of the city's major cultural attractions, including the zoo, the Hall of Flame, the Desert Botanical Garden, and the Arizona Historical Society Museum.
- **Historic Heritage Square** – A part of Heritage & Science Park that includes the Arizona Science Center, Phoenix Museum of History, restaurants and a parking garage. The Park is operated by the city of Phoenix Parks and Recreation Department in conjunction with the Heritage Square Foundation. This tourist center contains shops, museums and restaurants, and also includes the only remaining group of residential structures from Phoenix's original settlement.

Recreational Parks

Piestewa Peak and South Mountain Park are among regional parks in Phoenix Metro Area that offer similar recreational opportunities to the McDowell Sonoran Preserve. Piestewa Peak, formerly known as Squaw Peak, is part of the Phoenix Mountains Preserve. The elevation of Piestewa Peak is 2,608 feet; the total elevation gain for the Summit Trail is 1,190 feet. According to the City of Phoenix, it is one of the most heavily used trails in the nation with 4,000 to 10,000 hikers per week. At over 16,000 acres, South Mountain Park and Preserve often is considered the largest municipal park in the country. There are more than 50 miles of trails for horseback riding, hiking and mountain biking. At 2,330 feet, Dobbins Lookout is the highest point in the park accessible by trail. Other parks with hiking trails operated by the City of Phoenix include Camelback Mountain, Deem Hills, Lookout and Shadow Mountains, North Mountain and Shaw Butte, and the Phoenix Sonoran Desert Preserve.

With its location at the Gateway trailhead, DDC will be highly visible to hikers and other visitors to this popular location. In turn DDC will be seen as a resource worth visiting for regional residents who use hiking trail systems elsewhere in the Metro Area.

Scottsdale Events

Scottsdale has many cultural events throughout the year that are popular with residents and visitors alike. Some are more directly related to DDC than others and are also potential cross-promotional opportunities and marketing partners. McDowell Sonoran month in October every year encompasses a schedule of educational and recreational events that celebrate Scottsdale's unique desert environment. Some of the signature events held annually in Scottsdale include:

- **The Fiesta Bowl** (Late December-January 1st) – A college football bowl game.
- **Native Trails** (January – March) – A series of events celebrating native arts and cultures of the southwest.
- **Barrett-Jackson Auto Auction** (January) – An internationally acclaimed collector automotive trade show and auction.
- **Waste Management Phoenix Open** (January-February) – A golf tournament achieving the highest attendance of any event on the PGA tour.
- **Parada del Sol Rodeo** (February-March) – Annually occurring since 1956, this rodeo is among the oldest, officially-sanctioned (by the Professional Rodeo Cowboys Association) rodeo events in the world. The event consists of four sessions over the course of a three-day period, during which cowboys from across the country participate.
- **International Sportsmen's Expo and Arizona Boat Show** (March) – An annual event featuring gear, equipment, and machinery for the recreational outdoorsman.
- **Scottsdale Arts Festival** (March) – A juried art show featuring 175 artists from around North America, including arts of a variety of media, gourmet cuisine, and live music.
- **MLB Spring Training** (March) – Scottsdale is the training city for the San Francisco Giants, Colorado Rockies, and the Arizona Diamondbacks. (The Phoenix Metro Area hosts a total of 15 teams at 10 facilities)

- **Scottsdale Culinary Festival** (April) – Culinary Arts festival drawing over 40,000 people annually.
- **Arizona Bike Week** (April) – A week of motorcycle races, charity rides, parties, and other activities.

There are more than 35 art galleries in Scottsdale, and Scottsdale ArtWalks are conducted every Thursday evening, year-round from 6:30 – 9:00 p.m. Each week, Scottsdale Gallery Association members host special exhibits - many with artist receptions - and join together for an informal come-and-go "open house" throughout the district. Several times per year, the Scottsdale Gallery Association holds Special Event ArtWalks with live music along the streets and special themed events. In recent years there has been a reduction in the number of arts galleries and the overall arts scene in Scottsdale is being transformed with less activity in Old Town and newer happenings such as lounge-style events at Scottsdale Museum of Contemporary Art, bus and bicycle tours of public art installations, and Canal Convergence mash-ups of visual and performing arts in outdoor settings. This change is thought to be related to arts industry trends towards on-line shopping; and weakening of the buying patterns of several key market segments.

Summary

The Phoenix Metropolitan Area, which includes Scottsdale, offers many popular attractions, professional sports teams, major shopping malls, outdoor recreation, and a substantial accommodations base. In addition, there are a number of cultural and nature based destinations, including museums, parks, cultural and educational attractions, and historic sites.

Attendance at the top tourist attractions in Phoenix Metropolitan Area ranges up to 1.3 million at the Phoenix Zoo, which has the largest number of visitors among the profiled attractions. There are five cultural/nature based destinations that draw an estimated 200,000 to 450,000 visitors annually, including the World Wildlife Zoo and Aquarium, Desert Botanical Garden, Arizona Science Center, the Heard Museum, and Phoenix Art Museum. Opened in April 2010, the Musical Instrument Museum has an estimated annual attendance of 200,000. Taliesin West in Scottsdale has an estimated annual attendance of

110,000. Ticket prices at local facilities vary greatly, from $2.00 at some of the smaller venues to $39.99 at the Wildlife World Zoo, with the most popular attractions generally charging between $10.00 and $20.00 for adult admission.

As the population in the Phoenix Metropolitan Area grows, so does the context for competitive leisure activities in the area. New attractions in the area include the South Mountain Environmental Education Center in Phoenix, the SEALIFE Arizona Aquarium in Tempe, and the OdySea Aquarium in Scottsdale. Recreation Parks and Mixed-Use Destinations provide additional infrastructure for visitors and residents alike. Further, annual sporting and cultural events in Scottsdale draw a large number of visitors, generating demand for attractions and activities, as well as tourism infrastructure.

The context of competitive attractions and leisure activities in the Phoenix Metropolitan Area in general and Scottsdale in particular is active and growing; however, for a metropolitan area of the size and growth of Phoenix, there are few cultural and nature based destinations that achieve high levels of attendance, indicating room to grow within the market. The proposed high-quality educational and cultural experience to be offered at the DDC will be a welcome addition to the market. Ticket prices for the proposed DDC will be set in line with other attractions in the area and the unique offerings at the DDC will be emphasized in order to differentiate the organization from other competitive attractions in the area.

Section VI

SELECTED CONSERVATION AND EDUCATION DESTINATION CASE STUDIES

This section of the report includes case studies of selected conservation and education destinations to inform the development of the business plan for the Desert Discovery Center (DDC). There is no case study exactly comparable to DDC, which has an open campus plan at a unique location at the interface of a large urban area and a large natural preserve. DDC is also located in a region with a large population and a community with a high level of tourism activity. DDC's interpretive themes and experiences are unique to its location, the McDowell Sonoran Preserve. The case studies are intended to inform several topical areas relevant to the development of DDC and will reflect one or more of these areas, including:

- **Interpretive and Experience Focus –** The interpretive focus is on natural environments, primarily desert environments, with the exception of one newly built presidential library and museum. Visitor experiences, amenities and services offered are high quality and sufficient to warrant a half-day trip or longer.
- **Local Area Focus –** The facility interprets the natural environment of the local area and serves as a place to introduce people to it.
- **Project Scale –** The project is of moderate or large scale, and is adequately sized to its market potential and the visitor experience offered.
- **Features Sustainable Architecture –** Project elements and programming are related to a "green" building or other sustainable features, including site and building elements.
- **Project's Market Focus –** The project appeals to resident and tourist markets.
- **Market Context –** The project is located in or near a large resident population. The facility can be located in remotely, but accessible to population centers, or densely populated areas. The project also has a large tourist population.

Each case study reflects one or more of the above attributes. Data in **Table VI-1** lists these in alphabetical order, and provides an overview of some of the characteristics of the case studies as they relate to potential attributes of DDC. Facility profiles reflect data available in June 2017.

Table VI-1
Review of Selected Case Study Characteristics

Name	Interpretive and Experience Focus	Local Area Focus	Project Scale	Features Sustainable Architecture	Project's Market Focus	Area Market Context
Arizona-Sonora Desert Museum	Desert Environment, Gardens, Zoo	Yes	Large	No	Resident / Tourist	Large Population High Tourism
Desert Botanical Garden	Desert Environment, Gardens	No	Large	No	Resident / Tourist	Large Population High Tourism
High Desert Museum	Desert Environment, Local Art and Culture	Yes	Large	No	Resident / Tourist	Low Population Moderate Tourism
Las Vegas Springs Preserve	Desert Environment, Ecology, Conservation	No	Large	Yes	Resident / Tourist	Large Population High Tourism
Living Desert	Desert Environment, Gardens, Zoo	No	Large	No	Tourist	Moderate Population High Tourism

Source: Facilities profiled and ConsultEcon, Inc.

Overview of Case Studies

Following is list of case study summaries in alphabetical order, not ranked according to any ranking criteria. Detailed profiles of each attraction appear in **Appendix C**.

- **Arizona-Sonora Desert Museum** – Tucson, Arizona – This facility is a zoo, botanical garden, and natural history museum, attracting about 400,000 visitors annually. Eighty-five percent of the museum's exhibits are outdoors and incorporate 2 miles of pathways, over 21 acres. Facilities include the Center for Sonoran Desert Studies, ASDM Art Institute, two cafés, coffee bar and snack shop, and retail store.
- **Desert Botanical Garden** – Phoenix, Arizona – The botanical garden features a wide array of desert plants on over 50 acres. The garden holds a number of events each year, including musical events, culinary events, and desert plant sales. Total visitation is typically over 300,000, though may reach numbers closer to 400,000 due to special exhibits. Garden facilities include café, gift shop, meeting space, research library, and herbarium.
- **High Desert Museum** – Bend, Oregon – This 110,000-square-foot museum focuses on living history and desert wildlife in the high desert of Oregon. The site is located near a National Forest and totals 135 acres. Exhibits are located indoors and outdoors, with over 150 live animals. Attendance was over 160,000 according to the 2017 AAM Official Museum Directory. The facility includes a gift shop and café.
- **Las Vegas Springs Preserve** – Las Vegas, Nevada – This attraction, opened in 2007, has extensive interpretation, exhibits, and project elements. Built at a cost of over $250 million, interior building space totals 176,000 square feet. In 2011 The Nevada State Museum opened a new facility on the Springs Preserve campus, adding 70,000 square feet of exhibit space. Located in the middle of Las Vegas, the site is 180 acres, with 8 acres of gardens and 1.8 miles of trails (2.6 miles upon completion). There is an

outdoor amphitheater with 1,800 seats, as well as a 250-seat garden amphitheater and a 156-seat indoor theater. The Preserve's attendance during the 2015/2016 fiscal year was nearly 260,000 visitors.

- **Living Desert** – Palm Desert, California – A large attraction, described as a zoo, botanical garden, nature preserve and natural history museum, the Living Desert has developed over time from its founding in 1970. The preserve encompasses 1,800 acres with 200 acres developed. Facilities include cafés, gift shops, a garden center, and a 600-seat outdoor amphitheater. Themed around the local desert as well as the African savanna, annual attendance in a recent year exceeded 400,000, including attendance to special events, tours, and programs.

Summary and Findings

Each case study highlights a destination educational attraction that is located in a special part of the country and interprets unique, local qualities and attributes, as well as other topics and themes. In addition to interpreting their own and other landscapes, the natural history-focused centers promote sustainability, conservation, environmental education, and stewardship of the land. A visitor will typically spend 2 to 4 hours at a destination attraction, and facilities offer many amenities including extensive exhibits, programs, demonstrations, special events and festivals, shows, films, walking trails, libraries, gardens, zoos, cafés, and gift stores. Following are summaries of key characteristics and lessons learned.

Facilities

Data in **Table VI-2** provide a comparison of selected facility characteristics of case studies. The profiled destination conservation and education destination range in size from 70,000 square feet to 176,000 square feet, and they offer a wide variety of exhibits, amenities, and services. Campus sizes range from 47 to 200 acres. Program areas include indoor spaces, like exhibits, libraries, auditoriums, cafes, and retail stores, as well as outdoor spaces, such as walking trails, outdoor amphitheaters, and gardens.

Table VI-2
Facility Size Characteristics of Selected Case Studies

Name	Location	Opening/ Founding	Building Size (SF)	Land Area (acres)	
Arizona-Sonora Desert Museum	Tucson, AZ	1952	70,000	47	1/
Desert Botanical Garden	Phoenix, AZ	1937	NA	55	2/
High Desert Museum	Bend, OR	1974	110,000	135	
Las Vegas Springs Preserve	Las Vegas, NV	2007	176,000	180	
Living Desert	Palm Desert, CA	1970	NA	200	3/

1/ The Arizona-Sonora Desert Museum property is 97 acres, of which 47 are developed and curated.
2/ The Desert Botanical Garden property is 140 acres, of which 55 are under cultivation.
3/ The Living Desert property is 1,200 acres, of which 200 are developed as a zoo, botanical garden, and natural history museum. Administrative offices, gift shop, nursery, food service, and educational facilities occupy an additional 100 acres.
Note: NA is Not Available.
Source: Facilities profiled and ConsultEcon, Inc.

Several conservation and education destinations have been developed over time, including the Arizona-Sonora Desert Museum, Desert Botanical Garden, and Living Desert. Others, such as the Las Vegas Springs Preserve, were built recently using technology and advances in environmental design and construction. Las Vegas Springs Preserve, a large facility with seven LEED-certified[28] buildings, has many interactive and immersive exhibits related to the natural and cultural history of the area. The preserve focuses on desert ecology and sustainability, and has over 110 permanent exhibits and a 1,800-seat outdoor amphitheater, as well as many other amenities including a café overlooking the Las Vegas Strip. Las Vegas Springs Preserve was built at a cost of over $250 million in 2007. The addition of the Nevada State Museum at the Springs Preserve includes a 70,000 square foot facility with exhibit space, a library, collection storage, and public space. The museum's collections include historic paleontological fossils, as well as modern collections, such as the 8,000 piece Folies Bergere Costume archive.

[28] LEED stands for Leadership in Energy and Environmental Design and is a program of the U.S. Green Building Council that certifies buildings as meeting standards for energy savings, water efficiency, CO2 emissions reductions, improved indoor environmental quality and overall stewardship of resources.

DDC will be constructed using green building guidelines such as LEED. As with other environmentally oriented and education oriented destinations, the conceptual DDC design and visitor experience plan is to integrate the design and construction of the building with interpretive themes and exhibits of DDC. Moreover sustainable design and buildings offer potential savings over the facility's lifecycle through energy use reductions and water conservation. As well, a green building approach has the potential to create public interest, community awareness, educational opportunities, and marketing themes.

Exhibits

The most successful museums retain focus on their core interpretive areas, and retain a clearly articulated visitor experience. When the interpretive focus is less clearly articulated, attendance patterns are lower. The profiled educational destinations employ the latest technology in their exhibits where applicable. The profiled educational destinations report that special exhibits increase attendance and give visitors new reasons to return. The High Desert Museum achieved a 14 percent increase in attendance after they made strategic changes to marketing and temporary special exhibits. They changed their temporary exhibit policy, and now have 9 new exhibits per year, displayed for short amount of time, typically 3 to 6 months. Previously, "temporary" exhibits were displayed for longer periods. Rather than the traditional history museum exhibit, the facility is showing all aspects of central Oregon pioneer life, such as *Sin in the Sagebrush*, which drew larger crowds than previous temporary exhibits. Over half of their attendance is from Oregon, and visitors reportedly need new and exciting reasons to visit the museum. The Desert Botanical Garden has had similar success with special exhibits such as *Chihuly, the Nature of Glass* in 2008-2009, *Chihuly: In the Garden* in 2014, and *Bruce Munro: Sonoran Light* in 2016 causing a significant increase in visitation.

Special Events, Festivals, and Programs

Facilities report celebrations, festivals, and special programs increase attendance and expand the audience. Institutions report high attendance at holiday and nature-oriented special events. Some are held annually such as the Haunted Harvest and Winter Lights Festival at the Las Vegas Springs Preserve which have a combined attendance of 30,000. Summer Saturday

Extended Hours at the Arizona-Sonora Desert Museum are popular with families drawing additional visitors during themed and discounted Saturday evening programs. For this program, the reduced ticket pricing draws families and residents, in contrast to the typical attendee who tends to be a tourist adult visiting during the winter.

Market and Attendance

Not merely visitor centers or nature centers, educational destinations are multi-faceted and most have weathered the storm of the recent economic downturn. Many reported slight reductions in attendance in 2008-2009; hardest hit were those in tourist areas a substantial distance from population centers, but many report that their attendance declines are the same or less than those of other area attractions. Data in **Table VI-3** provide population and attendance characteristics of the profiled educational destinations. Recent data show that annual attendance in 2016 ranged from 170,000 to over 400,000.

The profiled facilities report that drive markets are still strong, as is visitation from European tourists. Both the opening year of a new facility and special exhibits at established sites drive attendance higher than the institution's attendance baseline. The Chihuly exhibit at the Desert Botanical Garden brought 550,000 visitors in a six-month period, almost twice the typical yearly attendance.

Table VI-3
Market Population and Attendance of Selected Case Studies

Name	Location	Metro Area or County	2016 Metro / County Population	Annual Attendance		Attendance to Population Ratio
Arizona-Sonora Desert Museum	Tucson, AZ	Tucson, AZ	1,016,000	356,000		0.35
Desert Botanical Garden	Phoenix, AZ	Phoenix-Mesa-Scottsdale, AZ	4,662,000	380,000		0.08
High Desert Museum	Bend, OR	Bend, OR	181,000	170,000		0.94
Las Vegas Springs Preserve	Las Vegas, NV	Las Vegas-Paradise, NV	2,156,000	260,000	1/	0.12
Living Desert	Palm Desert, CA	Riverside-San Bernardino-Ontario, CA	4,528,000	408,000	1/	0.09

1/ Las Vegas Springs Preserve and Living Desert Attendance for 2015-2016 Fiscal Year.
Note: Population and attendance figures are rounded to the nearest 1,000.
Source: Facilities profiled; AAM Official Museum Directory; Census Population Estimates 2014; ConsultEcon, Inc.

Ticket Prices

Data in **Table VI-4** show adult and ticket prices, as well as family membership prices at the profiled case studies. In season, the profiled facilities charged between $12.00 and $24.95 for an adult ticket. Las Vegas Springs Preserve offers Nevada state residents half-price tickets. The High Desert Museum reduces ticket prices in their off-seasons. These measures were taken to increase local and regional attendance and encourage audience diversity.

All profiled facilities have membership programs. Family membership fees range between $60.00 and $130.00. Membership numbers range from 5,000 to 22,500. Older, established facilities and those in large urban areas such as the Arizona Sonora Desert Museum and Desert Botanical Garden have over 20,000 memberships.

Table VI-4
Adult Ticket Prices of Selected Case Studies

Name	Adult Ticket Price	Child Ticket Price	Family Membership Fees
Arizona-Sonora Desert Museum	$20.50	$8.00	$105.00
Desert Botanical Garden	$24.95	$12.95	$109.00
High Desert Museum	$15.00 (May to Oct.) $12.00 (Nov. to April)	$9.00 (May to Oct.) $7.00 (Nov. to April)	$90.00
Las Vegas Springs Preserve	$18.95 (non-residents) $9.95 (Nevada residents)	$10.95 (non-residents) $4.95 (Nevada residents)	$60.00
Living Desert	$19.95	$9.95	$129.95

Source: Facilities profiled; ConsultEcon, Inc.

Management and Operations

Data in **Table VI-5** present selected operating characteristics and benchmarks of case studies of the profiled case studies. Following is a discussion of various components of operations at these organizations.

Table VI-5
Operational Characteristics of Selected Case Studies

Name	Governance Structure	Earned Revenue	Contributed Revenue	Operating Expenses	Operational Revenue as a Percent of Operating Expenses	Full-Time Equivalent (FTE) Employees 1/	Number of Volunteers	Operating Expenses per FTE Employee
Arizona-Sonora Desert Museum	Non-Profit	$6,010,000	$2,380,000	$7,950,000	76%	136	474	$58,000
Desert Botanical Garden 2/	Non-Profit	$7,961,000	$5,383,000	$12,943,000	62%	130	790	$100,000
High Desert Museum	Non-Profit	$2,594,000	$2,495,000	$4,102,000	63%	45	237	$91,000
Las Vegas Springs Preserve 3/	Public Water District and Non-Profit	$2,643,000	$4,852,000	$7,495,000	35%	56	250	$134,000
Living Desert	Non-Profit	$7,473,000	$2,096,000	$9,637,000	78%	112	511	$86,000

1/ Part-time employees at 50% of full-time employee and seasonal employees at 25% of full-time employee.
2/ The Desert Botanical Garden has 130 FTE during its peak season; baseline FTE is 93.
3/ The Las Vegas Water District provides large majority of non-operational revenue, as part of their public education and conservation mandate.
Note: Figures are rounded to the nearest 1,000.
Source: Facilities profiled, Guidestar, and ConsultEcon, Inc.

Personnel Spending

Of the five organizations profiled, three provided data on personnel spending in their 2015 Fiscal Year IRS Forms 990. Data in **Table VI-6** summarize the categories of personnel spending compared to total personnel spending and compared to total functional expenses. The data show that personnel expenses make up between 45 and 57 percent of total functional expenses for these organizations. These ratios are representative of the larger museum industry.

Table VI-6
Personnel Spending Characteristics of Selected Case Studies

Name	Compensation, Salaries, and Wages	Pension Contributions	Other Employee Benefits	Payroll Taxes	Total Personnel Expenses	Total Functional Expenses	Total Pesonnel Expenses as a Percent of Total Functional Expenses	Full-Time Equivalent (FTE) Employees
Personnel and Functional Expenses from Organization 990s								
Arizona-Sonora Desert Museum	$4,124,191	$74,584	$656,936	$357,521	$5,213,232	$9,159,397	57%	136
High Desert Museum	$1,618,432	$8,841	$198,963	$175,951	$2,002,187	$4,101,910	49%	45
Living Desert	$3,998,092	$0	$446,201	$296,516	$4,740,809	$10,594,075	45%	112
Percent to Total Personnel Expenses								
Arizona-Sonora Desert Museum	79.1%	1.4%	12.6%	6.9%	100.0%			
High Desert Museum	80.8%	0.4%	9.9%	8.8%	100.0%			
Living Desert	84.3%	0.0%	9.4%	6.3%	100.0%			

Source: Facilities profiled, Guidestar, and ConsultEcon, Inc.

Governance

Four of the five facilities profiled are private, not-for-profit institutions. The Las Vegas Springs Preserve is publically owned and operated, but supported by foundations for the purpose of membership, fundraising, marketing, and volunteer and donor programs. Such public-private partnerships, if properly structured, can enhance an institution by widening and expanding support for the facility, its exhibits and programming.

Operating Budget

The profiled educational destinations had annual operating budgets that ranged from $4.1 million to $12.9 million. Larger sized facilities tend to have higher budgets. The institutions with the highest operating budgets are the Living Desert and the Desert Botanical Garden.

Employees

The profiled educational destinations employ between 45 and 125 full-time equivalent employees. Of these, most are full-time employees, but many sites have a small number of seasonal and part-time employees. Also important to operating and market success is a volunteer or docent program. Institutions profiled have between 200 and 800 volunteers involved in their organizations.

Revenue

The Operational Revenue potential can be significant for educational destinations. In addition to charging admission fees, educational destinations can earn revenue through retail and food service, facility rentals, program and special events fees, and membership dues. Revenue from Operational Revenues (or "Earned Revenues") covers between 35 percent and 78 percent of the profiled organizations' operating costs.

Food Service and Retail

All profiled facilities have cafés and gift shops, from simple to more elaborate facilities; some have more than one café and/or gift shop. Generally, food service and retail are a major part of the visitor experience and their quality and consistency is critical to long-term organization success. Many food service offerings and to a lesser extent retail operations are outsourced to vendors. Garden shops and plant sales are popular at the Desert Botanical Garden and Living Desert. This is an example of retail offerings geared to the visitor experience which is important for successful retailing at education / cultural destinations.

Marketing

Marketing is a significant factor in attendance with case study organizations having marketing budgets ranging from $100,000 to $1.6 million annually, with many in the $200,000 to $400,000 range. Facilities report that no matter the exhibit, event or program, marketing is a key factor to visitation. Without it, the public does not know of the program and is not enticed to attend. Where there is high attendance, typically there is a large budget for marketing and a focus on multiple market segments. All facilities report that increased marketing has led to higher visitation. Examples of marketing strategies employed include:

- For its blockbuster special exhibit, the Desert Botanical Garden spent $500,000 marketing *Chihuly, the Nature of Glass*, and twice the normal annual marketing budget. Prior to hosting the exhibit, the Garden analyzed visitation and operational data from Chihuly shows elsewhere, and estimated revenues conservatively for careful planning and promotion. The second Chihuly show, *Chihuly in the Garden*, was equally, if not more successful.
- Las Vegas Springs Preserve has recently refocused on marketing to promote their programs with added special events and festivals giving visitors new reasons to return to the park. They saw a 20 percent increase in attendance after that change.

Success Factors

Following are success factors identified by a review of the case studies.

- Staying true to the mission of the facility.
- Image-able, unique setting that is well-located for accessibility.
- Design that creates a sense of immersion in the natural environment.
- Outstanding facility that highlights its setting and interpretive programming. Newer facilities are “green” and/or LEED certified.
- Exciting, changing exhibits that bring in new and returning audiences.
- Special events and festivals that appeal to a wide demographic.
- Strong educational programs for adults, children, families, and school groups.

- Competitive ticket pricing.
- Retail, food service and other guest services that allow visitors to spend more time and dollars at the facility and enhance the overall experience.
- Aggressive marketing that promotes the facility, its exhibits and special programming.
- Public/private partnerships that allow for membership and donor opportunities.
- Appropriate staffing and the extensive involvement of volunteers.
- Cost controls and careful operational planning.

Summary

DDC at the McDowell Sonoran Preserve is planned as an education and conservation attraction in a unique location at the interface of a populous and growing urban area and an expansive natural preserve. The planned interpretive themes and experiences will be unique and focused on the Sonoran Desert especially the McDowell Sonoran Preserve. Five education and conservation oriented attractions have been identified and evaluated as operational and market case studies for DDC, based on criteria including interpretive and local area focus, project scale, and market context.

Though no case study provides a perfect comparable to DDC, each case study highlights a destination educational attraction that is located in a special part of the country and interprets unique, local qualities and attributes, as well as other topics and themes. As such, DDC can draw from their operating strategies in their future business plan. Facility sizes (including indoor and outdoor exhibit areas), exhibit offerings, special events, market size and attendance, ticket pricing, governance, revenue streams, operations and personnel spending, and marketing strategies have been evaluated across the case studies. A keen focus on the mission of the organization, unique facility settings, new and innovative visitor experiences and programs, competitive ticket pricing, and aggressive marketing have been identified as being among the key success factors for conservation and education attractions similar to DDC.

Section VII

DESERT DISCOVERY CENTER ATTENDANCE POTENTIAL

Following is an evaluation of the attendance potential of DDC as planned. The attendance potential analysis reflects the project's current scale and design, architectural concept, project scale as developed by Swaback Partners, the Thinc exhibit plan and DDCS's target capital cost; the relationship of DDC to its site and the overall McDowell Sonoran Preserve. Attendance potential is also based on the organization and operating plan as outlined herein; and the active programming, changing exhibits, marketing and events activity as planned.

Conservation and Education Destination Success Factors

Planning, creating and operating a conservation and education destination, such as DDC, is a substantial undertaking. Audiences today are exposed on a daily basis to extremely high-tech, high-quality media at work or school and on television. At the same time, cultural and educational institutions are balancing these media and interactive elements of the visitor experience with personalized experiences, events, programs and "personal touches." Due to high audience standards, those in the entertainment and educational destination industry have adopted the same engaging techniques to attract visitors. As the expectations by audiences of leisure time products and educational experiences are very high, a successful conservation and education destination must meet audience expectations of value provided both in terms of money spent and in time expended. To achieve its goals for interpretive and economic success, a destination such as DDC should fulfill the following criteria.

- **Good Location –** The accessibility and visibility of the location is critical to its market success. Facilities in outstanding locations, from an accessibility and visibility perspective, naturally have the greatest market opportunity.
- **Natural Setting –** For those attractions focused on the natural environment, an outstanding setting and direct access to that environment is critical.
- **Critical Mass of Attraction Elements** – There must be sufficient attraction content to appeal to a diverse audience with a degree of subject interests, ages and educational levels. There must be a variety and quantity of experiences for the visitor to feel they have visited a special place.

- **Exhibit Quality and Audience Appeal** – The conservation and education destination must have sufficient quality and quantity of content to warrant a special trip, and to possibly forego alternative activities. Typically, this implies that more than one hour is spent experiencing the conservation and education destination, with a target length of stay of perhaps one and a half to two or more hours. When combined with a meal or snack, shopping for souvenirs, taking a walk and/or relaxing in an outdoor area or taking a hike, the experience must be the focal point of a half-day or full day recreational experience. Most importantly, it must be an entertaining experience.
- **Repeatability** – For most conservation and education destinations of the scale being analyzed, the resident market is the focus audience, and a repeat visitation pattern is necessary for success. To bring an audience back, the conservation and education destination must have exhibits, program and site qualities that justify repeatable experiences. Changing and interactive exhibitry, consistently new and innovative programming and special/annual events are successful ways for projects of this type to encourage repeat visitation.
- **Serves Visitor and Residents** – Conservation and education destinations of the scale planned can and should focus on both visitor and resident markets. Planning for and marketing to both groups promotes both maximum and year-round visitation. Further, successful local marketing is an essential approach to attracting the visitor market, as many tourists are visiting friends and relatives, and many locals advise out-of-towners on the best local attractions.
- **Comprehensive Facility and Programs** – The facility and its programs should be comprehensive to include spaces for groups to gather for informal education, information provision and visitor center functions, spaces for events and facility rentals, venues for lectures and presentations, retail and food service offerings and adequate office space and back-of-house areas to fully support the multiple activities that will occur on site.
- **Serves as an Event Venue for Facility Rentals** – Visitor attractions and museums are increasingly being used as "unique" event venues for facility rentals. Conservation and education destinations located in desirable nature based settings especially those with great views, have been very successful in this regard. Further, when the facility is designed to accommodate this use and is physically large enough, interesting event spaces can be created. In Scottsdale, the proximity of a substantial tourist population and a large hospitality resources base makes this a good earned revenue opportunity. In order to serve this market segment, the building program must support catering, and the facility staff and operation must successfully market and administer the events.
- **Marketing and Programs** – Successful conservation and education destinations allocate resources to creatively reach their resident and tourist markets. The marketing must not only describe the quality of the conservation and education destination, but also create excitement among potential visitors to travel to the facility.

Marketing in channels that reach enthusiasts is also an important success strategy. Ongoing programming is important in attracting first time visitors and repeat visitors.

- **Sound Financial Base –** An appropriate project scale for the potential attendance patterns and total audience is important so that earned revenues can support both operations and the physical infrastructure of the facility. Operations must be scaled to the particular attributes of the facility, including staffing, seasonality and other factors. Entrance fees must be set to maximize revenues while maintaining optimum visitation levels given the markets to be served. Marketing must sustain the audience size. Aggressive fundraising is crucial to organization success. Virtually all conservation, cultural and education destinations fundraise to support operations and to maximize mission fulfillment. Board leadership, funding relationships with government and foundation entities and partnerships with relevant service providing organizations is needed along with staffing dedicated to raising necessary non-earned revenues. Meeting these requirements will help to create a sound financial base.

DDC has the potential to become a successful conservation and educational organization based on its circumstances and its design and operating plans. Following is a discussion of factors underlying the estimate of attendance potential.

- **Location, Site and Accessibility** - A successful conservation and education destination must be highly accessible both locally and regionally. Scottsdale and the subject site have good regional accessibility. Within Scottsdale, DDC's location is readily accessible and can have an effective signage and wayfinding program.
- **Natural Setting –** DDC at the Gateway will provide outstanding long views for visitors; close-up experiences with many desert plants and an immediate opportunity to use the Preserve trail system. As such this will be one of the truly outstanding settings for a nature based interpretive center in the region and nationally.
- **Attraction Elements –** DDC has been designed as a conservation and education destination that will become a high-profile regional serving destination with substantial resident market and tourism market appeal. DDC will offer indoor and outdoor interpretation; access to an interpreted loop trail; as well as immediate access to the larger McDowell Sonoran Preserve trail system. The Desert Discovery Exhibition Concept Plan has content for a wide array of attendee ages, knowledge of desert environments, learning styles and engaging and relevant interpretive topics.
- **Program of Spaces –** The DDC Program of Spaces includes a wide variety of public spaces including indoor conditioned spaces, un-conditioned roofed spaces, areas under canopy shaded spaces and open air areas. In all these blended public spaces will offer nearly 30,000+ square feet of exhibits; 50,000+ square feet of space under roof and canopied and un-canopied public spaces that offer informal program areas, informal visitor experiences, places to relax and enjoy the views and plenty of circulation. Also offered is the Desert Great Space for events, facility rentals and

special exhibits, café and retail and restrooms. A very complete experience will be offered. Further, this campus will be open to the public with the exhibit spaces requiring a form of visual / electronic / RFID identification obtained at the admission center.

- **Program Partner –** DDCS is working with ASU's Global Drylands Institute (GDI) to form a program partnership. There are possibilities for more program partnerships. GDI will conduct ongoing research and conservation programs from their on-campus Field Station. GDI will also contribute to the intellectual and experiential life of the campus by showcasing in special exhibits and programs and events its work and the best practices in living in and supporting the ecological health of arid places.
- **Available Markets –** DDC will draw a major portion of its attendance from resident markets. The estimated 2021 population of the City of Scottsdale, the Primary Resident Market Area, is 246,000. The Secondary Resident Market Area is the area within a 30-minute drive of the site (not including Scottsdale). It has an estimated 2021 population of 2,159,700. The Tertiary Resident Market is the remainder of the Phoenix Metropolitan Area with an estimated 2021 population of 2,536,500.
- **Scottsdale is an Urban Tourism Destination.** Scottsdale and the surrounding area have an active tourism economy. Scottsdale attracts large numbers of visitors. The following are estimates of overnight visitors by type: 1.94 million Domestic and International overnight visitors in the Scottsdale hotel market area; 390,000 overnight visitors to Other Lodging Types in Scottsdale; 348,000 travelers Visiting Friends and Relatives (VFRS); plus 159,000 travelers Staying in Seasonal homes. In addition, there are an estimated 4,130,000 Domestic Day Trip Visitors to Scottsdale by travelers staying overnight elsewhere in the Metro Area or on long day trips from outside of the Metro Area and an estimated 280,000 International Overnight Visitors taking Daytrips to Scottsdale. In all, there are an estimated 7,247,000 travelers staying overnight or visiting the city on daytrips by people who reside outside of the Metro Area. These are the target audience for DDC trips. In addition, there are millions of visitors to other places in the Phoenix metro area that will be DDC visitor prospects given its planned unique offerings.
- **Use of the McDowell Sonoran Preserve is Growing.** The McDowell Sonoran Preserve trail system has been growing in number of trails but also in number of users. With this growth in use is a growth in number of people who evince interest in the desert environment and the Preserve. Trail use has increased from under 200,000 annually in (2012) to over 700,000 in 2016. While this rate of growth will not continue as much of the growth is due to new trails and the "discovery" of the system by Scottsdale residents it is clear that knowledge of and interest in the Preserve has grown. This is an important indicator of market potential for DDC.
- **Facility Pricing** - The facility's planned ticket prices are in keeping with the breadth and quality of the visitor experience, and the time a visitor will spend at DDC. In current value of the dollar, the ticket price as planned will be competitive with other comparable attractions in the region. DDC assumes (in current value of the dollar) an admission fee of $17.50 for adults, $15.00 for seniors, $11.00 for youth and $6.00

for students in groups from outside of the Scottsdale Unified School District, those within the School District will have the benefit of free admission. In a policy to benefit Scottsdale residents, there will be free admission one day per month for Scottsdale residents. The days of the week will be varied so that during the course of the year, people with different work and school schedules will be able to take advantage of free admission. Finally free admission will be offered to all visitors on their birthday. An allowance for coupons and discounts has also been included in this plan at 3 percent of ticket prices. These ticket price assumptions have been informed by the comparable facilities and ticket prices in the Phoenix Metro area. The assumptions are focused on balancing ticket revenues with strong attendance patterns and benefits to Scottsdale residents.

- **Competitive Context –** There are several nature-based attractions in the greater Phoenix area and therefore provide some competition for visitors. These include the Phoenix Zoo and the Desert Botanical Garden, which are both first-rate and popular attractions. DDC as planned however will be uniquely positioned from two perspectives. First, it will be located in perhaps the premier Phoenix-area accessible wilderness area; second, it will be directly focused on the local environment rather than biomes from around the world. Visitors will be immersed in the local environment and will have the opportunity to take short – or longer hikes on Preserve trails. Therefore, it will position itself uniquely in the market.
- **Marketing and Programs** - The design and operating plan for DDC assumes an ongoing marketing effort aimed at prime audiences, which include the defined resident market area, as well as Scottsdale tourists and tourists to the greater Phoenix area who already have a strong pattern of making day-trips to Scottsdale. With the tourism audiences, there are marketing channels that can be used to build awareness of DDC. These include hotel and information center "pamphlet racks"; cooperative marketing with the Scottsdale Convention and Visitors Bureau; co-operative marketing with the other nature-based attractions in the greater Phoenix area; local newspapers and radio spots and other marketing channels.
- **Days Open and Hours Open** - It is recommended that DDC operate year-round. Closing days for major holidays will depend on the local market and operating experience. Moving forward there can be flexibility in hours open. For instance, in the summer, DDC might be open earlier and close earlier because of the hot summer weather. Generally a start time of 9 am and a closing of 5 pm is proposed.

Attendance Potential

DDC has substantial attendance potential from resident and visitor markets. The estimate of potential attendance at DDC has been prepared through a "gravity model" analytical approach. That is, the propensity to visit this conservation and education destination is strongest among people who reside the closest. Tourists who stay overnight in Scottsdale are more likely to visit than those tourists who are staying overnight elsewhere in the Phoenix

Metro Area or who are on long day trips from their residences beyond the Metro Area. From an analytical perspective, for the Resident Market, Primary, Secondary and Tertiary Market Areas have been established and a range of market capture rates for each has been established. For tourist market segments, the analysis focuses on the estimates of the volume of tourists who stay overnight in Scottsdale plus the estimates of the number of tourists who make day trips to Scottsdale. Again, capture rates of these market segments are applied to establish the attendance potential from tourists. The attendance potential estimates have been informed by the experience of comparable facilities profiled in this report, as well as the various conservation, cultural and educational attractions in the Phoenix Metro Area. Further, the overall experience of facilities of this type nationally have been considered in preparing the attendance potential estimates.

Data in **Table VII-1** provide a summary of the derivation of the attendance potential estimate for DDC in a stable year, based on the data and analyses contained in this report, and the current plans for the DDC campus, visitor experiences and operations plans.

Table VII-1
Stable Year Preliminary Attendance Potential
Desert Discovery Center

	Estimated 2021 Market Population	Estimated Market Capture Rates Low	High	Visitation Range Low Range Attendance	Mid Range Attendance	High Range Attendance	Percent to Total
Resident Market							
Primary Market Area	246,000	14.00%	18.00%	34,440	39,360	44,280	12.8%
Secondary Market Area	2,159,700	3.00%	4.50%	64,791	80,989	97,187	26.4%
Tertiary Market Area	2,536,500	1.50%	2.50%	38,048	50,730	63,413	16.6%
Total Resident Market	4,942,200	2.78%	4.15%	137,279	**171,079**	204,879	55.8%
Visitor (Tourist) Market Segments	**Estimated Visitor Volume [1/]**	**Low**	**High**	**Low Range Attendance**	**Mid Range Attendance**	**High Range Attendance**	
Scottsdale Overnight Visitors							
Domestic & International Overnight Hotel / Resort Visitors	1,940,000	2.50%	5.00%	48,500	72,750	97,000	23.7%
Other Scottsdale Area Lodgings	390,000	2.00%	4.00%	7,800	11,700	15,600	3.8%
Visiting Friends & Relatives (VFRs)	348,000	2.50%	5.00%	8,700	13,050	17,400	4.3%
Overnight Visitors Staying in Seasonal Homes	159,000	2.00%	4.00%	3,180	4,770	6,360	1.6%
Scottsdale Day-Trip Visitors							
Domestic Day Trip Visitors to Scottsdale [2/]	4,130,000	0.50%	1.00%	20,650	30,975	41,300	10.1%
Estimated International Overnight Visitors taking Daytrips to Scottsdale [3/]	280,000	0.50%	1.00%	1,400	2,100	2,800	0.7%
Total Tourist Market Segments [4/]	7,247,000	1.25%	2.49%	90,230	**135,345**	180,460	44.2%
Total Stabilized Attendance Potential Range				227,509	306,424	385,339	100.0%
Mid Range Attendance [5/]				**228,000**	**306,000**	**385,000**	

1/ Tourism volume estimates based on latest available data. See Report Section V

2/ Includes tourists staying overnight elsewhere in the Phoenix metro area and long day trips from residents living outside the defined resident market area. The market capture rate used represents the capture rate of the current volume of day trippers to Scottsdale. The estimated capture rates include not only attracting DDC visitors from existing levels of day trips to Scottsdale, but also attracting additional day trippers who would not otherwise visit Scottsdale.

3/ This category is included in the analysis to represent overnight International travelers not staying in Scottsdale who are not included elsewhere in the tourism summary.

4/ Note that this is not an estimate of tourists to Scottsdale or an estimate of tourists to the Phoenix Metro Area. Rather it is an estimate of several identified market segments

5/ Rounded to nearest 1,000.

Note: Attendance is composed of people purchasing tickets, attending with school and other youth groups, as DDC members, attendees to events and programs and as free attendees who are part of these visitor segments. Not included are walk-ins to the DDC free zone.

Source: ConsultEcon, Inc.

The estimated market capture rates for DDC are estimated at 14.0 percent to 18.0 percent of residents in the Primary Market Area; 3.0 to 4.5 percent of residents in the Secondary Market Area and 1.5 percent to 2.5 percent in the Tertiary Market Area. These resident market area capture rates indicate the opportunity for a steady pattern of use of the ticketed areas of the facility among those area residents interested in the topics being interpreted and strong school group use. In addition to the strong anticipated visitation pattern of residents of the Phoenix Metro Area, DDC will attract Scottsdale and area tourists, people visiting friends or relatives in the area, and convention and meeting attendees. In addition, there will be use of the facility by people on longer day trips who reside outside the Phoenix Metro Area. The split between residents and tourists is estimated at 56 percent residents and 44 percent tourists.

Stabilized attendance levels are typically achieved in the third or fourth year after opening. Attendance potential at DDC in a stable year (Year 3) is estimated at 228,000 to 385,000, with a mid-range estimate of 306,000.

In addition to visitors to the interpretive areas, it is anticipated that there will be considerable regular use of the non-paid components of DDC such as the café and retail shop, and the free entry campus areas by local residents and Scottsdale tourists. This use will often be in conjunction with hiking and other use of the overall McDowell Sonoran Preserve. In calendar year 2016, the McDowell Sonoran Preserve trail system attracted over 700,000 visits, of which about 30 percent were at the Gateway where DDC will be located.

Attendance Factors

The range in the estimates of DDC attendance potential is based on several factors:

- How well the currently planned DDC architectural, landscape and exhibit concepts are translated into the future visitor experience. As the facility design is in the conceptual planning phase, there can still be variability in the actual facility developed.
- Quality, scale, relevance and frequency of rotating (or traveling) exhibits including those of programming partners.
- The extent to which the planned visitor amenities such as food, retail, facility rentals and visitor information match audience needs and quality expectations.
- The extent of facility rentals.

- The extent of on-site programming such as demonstrations, lectures, docent led hikes and so forth by DDC and the programming partners.
- Future ticket pricing policies.
- The extent of special events that are sponsored on-site.
- The extent of programming partner research and conservation activities and their dissemination to other professionals and the general public.
- The extent to which volunteers become an integral part of DDC's operations, outreach, education and conservation activities.
- The extent of successful partnerships with other educational, research, conservation, tourism and other like-minded institutions.
- Quality of operations and attention to visitors which will affect attendance levels.
- Success of membership development efforts.
- The amount and quality of marketing employed (including pre-opening marketing).
- The success of DDC in its raising of non-operational funding; such funding will support overall operations. If the DDC is financially strong, it will be in a position to offer better experiences, more programming and more robust marketing. In turn the augmented operations would lead to higher public engagement and attendance levels.
- The changes in the economic environment in Scottsdale, the Phoenix Metro Area and the U.S. generally.
- The variation in market acceptance of the project that may occur.

Six-Year Attendance Patterns

During the first few years after opening, the project will be expected to achieve a higher attendance than in later "stable" years of operation based on local excitement about the facility. This early year surge is typical of new visitor destinations, especially among high profile attractions in large metro areas that generate a significant amount of pre-opening publicity through multiple media channels targeted to prime audiences. Interest in the DDC will likely be highest in the Primary and Secondary Market Areas. This early years surge in attendance will be balanced by the need to grow awareness in the Tertiary Market Areas; to get DDC included on more school field trip itineraries; and, to build awareness in the visitor (or tourist) markets. Based on these factors, a first year attendance pattern of 20 percent above stable year attendance for DDC is assumed with a 10 percent factor for Year 2. Stable attendance will then be expected to occur in Year 3. Data in **Table VII -2** provide estimated six-year attendance potential for DDC.

Table VII -2
Early Year Attendance Factors and Attendance Growth Pattern
Desert Discovery Center

	YEAR 1	**YEAR 2**	**STABLE YEAR 3**	**YEAR 4**	**YEAR 5**	**YEAR 6**
	2021	**2022**	**2023**	**2024**	**2025**	**2026**
Percentage of Stabilized Attendance	120%	110%	**100%**	100.5%	101.0%	101.5%
Mid Range Visitation Potential	367,200	336,600	**306,000**	307,530	309,060	310,590

NOTES:

1 Stabilized attendance expected to occur in Year 3. This analysis assumes that the full facility will be open for Year 1 of operations.

2 DDC is targeted to open in Fall of 2021. Therefore, Year 1 represents a fiscal year of 2021-22.

Source: ConsultEcon, Inc.

Attendance Seasonality

An important factor in facility planning is seasonality of visitation. Data in **Table VII-3** provide a summary of DC's estimated stable year attendance pattern by month. This estimated attendance pattern reflects the composition of the audience, school year attendance patterns, the experience of Phoenix area nature, culture and educational attractions, tourism seasonality patterns and the area's climate.

Table VII-3
Stable Year Monthly Attendance Distribution
Desert Discovery Center

	Low Attendance Scenario		Mid-Range Attendance Potential		High Attendance Scenario	
	Seasonality 1/	Total Attendance	Seasonality 1/	Total Attendance	Seasonality 1/	Total Attendance
January	10%	22,800	10%	30,600	10%	38,500
February	13%	29,640	13%	39,780	13%	50,050
March	13%	29,640	13%	39,780	13%	50,050
April	10%	22,800	10%	30,600	10%	38,500
May	7%	15,960	7%	21,420	7%	26,950
June	5%	11,400	5%	15,300	5%	19,250
July	5%	11,400	5%	15,300	5%	19,250
August	5%	11,400	5%	15,300	5%	19,250
September	6%	13,680	6%	18,360	6%	23,100
October	7%	15,960	7%	21,420	7%	26,950
November	9%	20,520	9%	27,540	9%	34,650
December	10%	22,800	10%	30,600	10%	38,500
Total	**100%**	**228,000**	**100%**	**306,000**	**100%**	**385,000**

1/ Seasonality estimate based on occupancy rates at Scottsdale hotels as an indicator of overall public activity in Scottsdale
Source: ConsultEcon, Inc.

High Day Attendance Analysis and Parking Demand

The peak attendance analyses presented in **Table VII-4** use the estimated stable year attendance to prepare estimates of high day facility attendance days (facility visitors) during the peak season. This analysis uses the estimate of the attendance during a peak month (the peak month is estimated to be March); a strong week during that period; and a high day in that week (18 percent of weekly attendance, probably a Saturday); to arrive at appropriate "design day" attendance levels for DDC given the overall assumptions and analyses of this report.

Table VII-4
Peak On-Site Population and Parking Demand Analysis
Desert Discovery Center

		Range Attendanc					
Annual Visitation Potential 1/		306,000					
	Factor	**Peak Periods**		**Average Periods During Peak Months**		**Facility Rentals** 3/	
						At DDC	**At overflow Site**
Peak Month Attendance		39,780					
Average Month Attendance				25,500			
High Week of Peak Month	28%	11,138		7,140			
High Day Attendance as a % of High Week	18%	2,005		1,285			
Average Length of Stay		**(2 hr. stay)**	**(2.5 hr. stay)**	**(2 hr. stay)**	**(2.5 hr. stay)**		
Percent of Total Daily Visitors In-House at Peak Period		32%	39%	32%	39%		
Peak in-house Population		642	782	411	501		
Rounded		640	780	410	500		
High Day Attendee Parking Demand 2/		255	311	164	200		
Average of Range		**283**		**182**			
Potential for Event Parking Demand 3/						50	150
	FTE Staff						
Employee and Volunteer Parking 4/	76.50	Assumed to park at off site location during periods when on-site parking can accommodate employee and volunteer demand.					

1/ Early year attendance may be twenty percent higher or more. Therefore in early years use of shuttles on peak days is expected.

2/ Based on 95 percent auto usage during peak daytime periods (bus usage is higher during the shoulder seasons from school groups and tour groups). 2.5 persons per vehicle. Plus 5% turnover requirement. This is for attendees DDC only. Does not include employee, volunteer and other administrative visitor parking who would park overflowly and shuttle to DDC campus on high attendance days.

3/ Large events and/or events that end after park closing will use a DDC off-site parking with shuttle bus. The demand on the off-site parking facility for a 300 person event is estimated at 150 vehicles based on one car per two attendees. Some large events would have attendees arrive by bus. On site for large events, there could be up to 50 cars for caterers and servers, security, DDC staff, volunteers etc. Smaller events of up to 125 attendees would either arrange for shuttle service from off-site facility or would be included in general parking if they are daytime events. Decisions on parking would be based on whether it will be a peak parking day or a lower attendance day when there would be on-site parking available.

4/ DDC will be open seven days per week. Administrative staff located at the overflow location will park there. Staff located on the DDC site will be covering a 7 days per week. However, weekends which are busiest attendance days will mostly visitor services, Retail & Admissions and some of the Plant Operations and Supervisory staff. During times of the year when the shuttle bus is running, DDC site staff would park overflowly and use the shuttle bus.

Note:

There are currently 381 parking spaces at the Gateway trailhead. The DDC plan includes an additional 163 spaces for a total of 544 spaces. While there may be opportunities for "shared parking" when DDC opens, the operating plan does not include shared parking. Rather employees and event attendees will park at an overflow lot at the administrative building site during high attendance periods; and, when the on-site parking lot is full, attendees will be directed to park at the overflow lot and then be shuttled to the DDC gate. The planned DDC on-site parking will be sufficient for most days of the year with the overflow lot needed mostly for employees and the very highest attendance days.

Source: ConsultEcon, Inc.

There are currently 381 parking spaces at the Gateway trailhead. The DDC plan includes an additional 163 spaces for a total of 544 spaces. There may be the opportunity for additional parking on-site and within the designated parking footprint by using valet parking techniques in a designated valet parking area during the busiest periods. An estimate of 40 additional vehicles accommodated via valet parking during the busiest periods is an opportunity under consideration by DDCS. While there may also be opportunities for "shared parking" with the Gateway's parking but such sharing could only occur once DDC is open and there is proof of additional parking capacity from Gateway designated parking spaces. This operating plan does not include such shared parking opportunities.

Because the planned 163 parking spaces (and possibly additional valet spaces) will not be sufficient for many days of the year, on-site parking will be supplemented with a DDC off-site parking lot co-located with the DDC administration building. A parking shuttle to off-site parking will be provided during high attendance periods and for evening events as needed. When the on-site parking lot is full, attendees will be directed to park at the secondary parking lot and then be shuttled to the DDC gate. The parking plan is for DDC and GDI personnel as well as volunteers to park at the off-site parking when on-site parking is fully needed for DDC visitors. Because of the seasonal attendance patterns and lower attendance on weekdays than on weekdays, the on-site parking is likely to be sufficient for the summer and weekdays in the fall and spring. During the high season from December through March, it is likely that shuttles to off-site parking will be required. In addition shuttles are likely to be required on weekends in spring and fall.

Attendance Potential Summary

Based on the market evidence presented in this report, the high-quality visitor experience planned for DDC, the range of attendance potential for DDC has been established at 228,000 to 385,000, with a mid-range "best estimate" of 306,000 in a stable year. In addition to visitors to the interpretive areas, it is anticipated that there will be considerable regular use of the non-paid components of DDC such as the café and retail shop, and the free entry campus areas by local residents and Scottsdale tourists. This use will often be in conjunction with hiking and other use of the overall McDowell Sonoran Preserve. These are above and beyond the attendance to DDC as summarized above.

Attendance is expected to be somewhat higher in early years of operation due to local excitement about the project; a 20 percent attendance surge is estimated in Year One and a 10 percent attendance surge is in year two. Attendance will be highest during the November through April period. This seasonality will affect use of on-site parking resources. The DDC development plan includes parking sufficient for many days of the year, but for busier periods on-site parking will be supplemented with a DDC off-site parking lot co-located with the DDC administration building. A parking shuttle will be provided during high attendance periods when DDC, GDI and volunteers would park as well as overflow DDC attendees; and for evening events as needed. This attendance potential analysis reflects a competitive ticket pricing policy and aggressive marketing of DDC. This estimate of attendance potential represents a range of market response, but it also reflects a high-quality program and interpretive focus.

Section VIII

DESERT DISCOVERY CENTER OPERATING POTENTIAL

This section provides a preliminary operating plan for the proposed DDC. The assumptions made are based on the market potential identified for the project, the planned facility size and program, and additional research on operating and development factors that will be associated with a conservation and education destination as planned. This analysis will require refinement as the project moves forward, and the project moves into later design phases.

Operating Assumptions

As a major conservation and education organization, DDC will operate under the norms of such facilities nationally, adjusted for local conditions. The operating assumptions and planned operating policies include:

- **Governance.** DDC is assumed to be operated by a private, not-for-profit, 501(c)(3) enterprise under a management agreement established with the City of Scottsdale. As such, this analysis does not include any property or corporate taxes, nor does it include depreciation, bond or mortgage payments, or management fees. This plan focuses on the estimated amount of needed non-operational revenues.

  The DDC has been envisioned, and long-planned, as an amenity in the Preserve, for which the concept was approved in 2007. Its mission supports the Management Objectives of the Preserve Ordinance (Sec. 21-3) to provide scenic view sheds for all to enjoy, provide a superior opportunity for people to experience and enjoy the magnificent Sonoran desert and mountains, support tourism, and provide education and research on the Sonoran desert and mountains. The management agreement will be reviewed and updated as necessary by the City Manager or designee.

- **Vision and Partnerships.** DDC will build a compelling organizational vision, with strong and distinguished advisors and staff, and will have a strong base of community support. Volunteers will be essential to the operating and educational plan. Volunteers will focus on public interface, programs and events. Currently, ASU's Global Drylands Institute is planned as a programming partner and other relevant institutions are possibilities. Programming partners will collaborate with DDC in providing programs, guided tours, and exhibit content. Other relevant programming partners will be sought as the DDC's visitor experience, educational, and operations plans advance. The facility and site will be used for special events and cultural activities after hours up to 60 times annually as a community service and to generate additional revenue. Educational groups from Scottsdale Unified School District (SUSD) will be admitted free of charge and school groups from elsewhere will be invited to visit at discounted prices. Educational programs and experiences dedicated to school groups will be created. Community outreach will be a cornerstone of the programming effort.

- **Facility Size.** DDC will be well designed and constructed. It will be of a scale in size and in quality to be recognized nationally as a facility of excellence. This operations analysis is based on the Swaback Partners Site plan and program of spaces at an estimated DDC gross conditioned space under roof of 38,500; gross non-conditioned space under roof of approximately 37,300 SF; canopy-covered outdoor areas of approximately 34,100 SF and uncovered areas of approximately 7,000 SF. DDC is assumed to open in October 2021.

- **Management and Operations.** DDC will be well-managed and will have the appropriate staff and board infrastructure to support a project of this nature. The structure, its exhibits, finishes, mechanical equipment and support systems will be well maintained to minimize insurance risks and unexpected repair and maintenance expenditures. Maintaining the exhibits in excellent condition is key to customer satisfaction. The Operating Plan herein represents such a robust approach.

- **Programming**. Regular program offerings will occur throughout the day, in addition to programs sponsored by groups, organizations, or individuals. Educational programs (by DDC and its programming partners) align with the Preserve's and/or DDC's mission and/or purpose. Examples of programming include:
  - **Desert Keepers-Led Tours:** These tours would be offered during general admission hours. Reservations may be required for groups over a certain size.
  - **Guided In-Preserve Hikes:** Guests may opt to expand their DDC experience and purchase a specialized topic guided Preserve hike with a trained guide. Hikes will include an overview of trail etiquette, rules, and safety and may extend beyond general DDC admission hours, but not Preserve hours.
  - **Daily or rotating DDC Educational Programs:** Examples include:
    - Encounters – such as Feeding the Reptiles, Tortoise Lady, Herpetological Society Slithers, Meet a Scientist, and rotating daytime visits from Southwest Wildlife Animals and Liberty Wildlife birds/raptors along with many others.
    - Living in the Desert – such as Native Plants Life and Survival, Shade in the Desert, Building Techniques, and others.

- **Events and Facility Rentals.** DDC will hold one or more fundraising events at DDC annually. Mission-focused events will include presentations by DDC and its programming partners such as symposia, lectures, and educational outreach opportunities. Special events and facility rentals could occur at the facility when they do not disrupt regular visitation. The Desert Great Space is planned to be able to accommodate such events during regular operating hours with no disruption to DDC attendees and regular operations. There will also be events and facility rentals after hours to accommodate the needs of groups and organizations. The operating plan envisions up to 60 of these annually, with DDC sponsoring up to 12 of these per year for its membership, fundraising, and community outreach purposes.

The physical infrastructure necessary and guidelines for events will be established. These guidelines may include protocol for off-site parking by event attendees; adherence to Scottsdale noise and light regulations, and other necessary policies promoting safety and community welfare. All after-hours events will be governed by the McDowell Sonoran Preserve regulations and policies. No special program users will be allowed to bring in any outside food or drink and all event users will be required to use approved preferred caterers that have been contracted for their quality and strict adherence to protection of the facility and the Preserve.

- **Miscellaneous Policies**. DDC will refine operating policies to ensure that there are no impacts to the Preserve or to neighboring communities. Prohibited activities include: jeep tours; overnight accommodations, hotel and lodging facilities; rock concerts; animals and pets (except service dogs); smoking or use of devices that produce smoke or vapor. All presentations will be on the DDC footprint.
- **Operating Hours**. DDC is planned to be open year-round, seven days a week excepting several major holidays yearly. Due to attendance patterns and the climate, the following are anticipated operating hours and policies.
  - October – April: 9:00 am – 5:00 pm.
  - May – September: an earlier opening due to anticipated early-day heat.
  - General admission hours will not exceed Preserve hours of sunrise to sunset.
  - Free to Scottsdale residents one day a month and on any guest's birthday.
  - Fall and Spring Break weeks for SUSD (Oct/March) will have earlier opening hours for special family programs (not before sunrise).
  - The Commons hours will match seasonal general admission hours (no admission fee required for The Commons).
- **Marketing.** DDC will develop an aggressive marketing program to achieve and maintain attendance and continually attract new visitors. Ticket pricing will be attractive and commensurate with overall visitor experience and value delivered. The project will also be managed to provide dynamic and effective educational programs and dramatic and continually evolving new exhibits. Changing exhibits and a constant array of programs and events is essential to attracting new visitors and repeat visitation; and sustaining DDC's commitment to fulfilling its mission.
- **Attendance Potential.** DDC attendance potential was evaluated in prior sections of this report, with attendance a function of the available markets and the size and scope of the project, its location, its marketing profile, and ticket prices. The mid-range attendance potential level of 306,000 from the market analysis is used in this

operations analysis. Based on the experience of other facilities, a surge in attendance during the first few years of operation is assumed before reaching stable attendance.

- **Financial Reserves.** There is a $6.3 million cash Operating Reserve Fund (In 2017 value of the dollar) planned as part of the project's initial capital cost. This Operating Reserve Fund will be directly available for any operating or capital contingencies that may occur, and would be available to fund actions or investments that may be needed to reach equilibrium between revenue sources and operating expenses. The amount of the initial cash Operating Reserve Fund is equal to a full stable year's operating budget including contributions to capital reserve accounts.

  A targeted annual addition to the Operating Reserve Fund from City of Scottsdale will be requested for a five year period. For planning purposes that request is included in this operating plan. The proposed annual City funding amount in Current Dollar Value is $700,000, with escalation based on inflation up to the opening date. Since these annual payments from the City are planned to be added to the DDC's Operating Reserve Fund, their cumulative current value amount of $3.5 million along with the planned $6.3 million (in current dollar value) from initial DDC fundraising will create Operating Reserve Fund that will form a solid financial foundation for DDC.

  At this time, the interest from the Operating Reserve account is planned to be used as part of the sources of needed DDC non-operational revenue, in the manner of endowment proceeds. The non-operational revenue from the operating reserves fund is included in DDC total potential revenue, based on an assumed inflation rate of 2 percent, an annual rate of return on total operating reserves of 5 percent, and a spend rate of 3 percent.

  It is expected that other philanthropic support, or positive annual cash flow remainders from operations that may occur can also be used to grow this fund such that long-term financial strength can be sustained.

REVENUE POTENTIAL

DDC, as do virtually all cultural, conservation, and education destinations, will generate revenues from a wide variety of sources including operational revenues from tickets, retail, food service, facility rentals, and so forth; from memberships; and from an array of non-operational revenue sources such as interest from the planned operating reserves fund raising events, grants, gifts, contributions, contributions in-kind, bequests, and so forth. These many revenue sources are needed to meet the institutions operating costs and to contribute to future facility re-investment and capital maintenance. The revenue plan as described is achievable if the full DDC facility and interpretive plan is implemented; a successful governance structure and organization is established; and, the quality of operations are at the described level.

In the operating plan presented below, there are personnel and expense budget amounts dedicated to and adequate for the activities necessary to generate the potential revenues. Further, and as discussed above, the appropriate governance and operating structure is proposed in the plan to optimize the earned revenue and fundraising aspects of the plan. It should be noted that fundraising is a primary responsibility of leadership board(s) that may be created for DDC. Following are discussions regarding revenue opportunities for DDC.

Operational Revenues

DDC will derive operational revenues mainly from ticket sales and memberships, with additional revenue derived from sources such as retail sales, café, memberships, and use of the facility for events and programs. Following is an analysis and discussion of the operational revenue potential of DDC.

Ticket and Membership Revenues

Average per capita admissions revenue is a product of ticket prices and the mix of ticket types sold (adults, children, etc.). Data in **Table VIII-1** provide DDC ticketing and membership assumptions. The ticket prices used are in current 2017 dollars. A benchmark DDC adult ticket price of $17.50 is assumed in this scenario. These ticket prices are in line with the assumed product offerings, the experience of comparable facilities nationally, and with local area conservation, cultural, and educational attractions. When developed, price inflation will be built into the actual future ticket prices.

Memberships are an important source of attendance related earned revenue. Due to the large population of the Resident Market, DDC's planned highly repeatable experiences, and the planned prices for Individual, Dual and Family Memberships, versus the price of general admissions, there is an opportunity to have substantial numbers of memberships. Free admission with the purchase of a membership is an important economic incentive for becoming a member. This analysis assumes approximately 4,590 DDC memberships in a stable year including an estimated 5 percent of which would be at supportive levels ($300 and above). Based on the estimated distribution of membership types and the planned membership fees (which are based on local areas not-for-profit attractions and the overall industry) memberships, an average membership fee of $119.00 is estimated in the current value of the dollar. This includes family and individual memberships as well as higher-level "supportive" memberships.

Table VIII-1
Stable Year Admissions Analysis in Current Dollars
Desert Discovery Center

Per Capita Ticket Revenue

	% to Total Attendance	Attendance By Type	Ticket Price	Contribution to Ticket Per Capita	Percent Contribution to Ticket Per Capita	Percent of Adult Ticket Price
Adult	34.0%	104,040	$17.50	$5.95	59.3%	100%
Senior	12.0%	36,720	$15.00	$1.80	17.9%	86%
Youth (3-12)	22.0%	67,320	$11.00	$2.42	24.1%	63%
Student Group Free [1/]	2.5%	7,650	$0.00	$0.00	0.0%	0%
Student Group [2/]	3.0%	9,180	$6.00	$0.18	1.8%	34%
Members	12.0%	36,720	$0.00	$0.00	0.0%	0%
Facility Rentals	4.9%	15,000	$0.00	$0.00	0.0%	0%
Free/Complimentary [3/]	9.6%	29,370	$0.00	$0.00	0.0%	0%
Less Discounts & Coupons @ 3%				*($0.31)*	*-3.1%*	
Total	100.0%	306,000		**$10.04**	100.0%	57%

Memberships Estimates

		Membership Types	Percent to Total	Estimated Number of Memberships	Avg. Price By Type
No. of Member Attendances	36,720	Individual	15.0%	689	$55
Average Annual Attendances Per Membership	8	Dual	35.0%	1,607	$90
Est. Total Memberships	4,590	Family	45.0%	2,066	$120
Average Membership Fee	$119.00	Donor	3.5%	161	$300
		Sponsor	1.0%	46	$750
Membership Revenue	$546,210	Patron	0.5%	23	$1,500
			100.0%	**4,592**	$119.28
				Rounded:	**$119.00**

1/ All Scottsdale student groups enter free of charge. It is assumed that each student, on average, visits DDC three times during the through first to twelfth grade period. A higher ratio of Scottsdale student attendance would yield higher attendance at DDC.

2/ All non-Scottsdale Student groups have an entrance fee assumed at under half of children's regular rates. It is assumed that the number of out-of-town students would be a higher number because of the large student population in the metro area. A higher ratio of students would yield higher overall DDC attendance.

3/ Includes children under 3 years old, complimentary tickets, VIPs, and, Scottsdale "Free Day" attendees. It is assumed DDC will be free to Scottsdale residents 1 day a month and on a guest's birthday. Free days are assumed to be equivalent to "high days" in peak season .

Notes:

Attendance is composed of people purchasing tickets, attending with school and other youth groups, as DDC members, attendees to events and programs and as free attendees who are part of these visitor segments. Not included are walk-ins to the DDC free zone.

Ticket Prices and membership rates are estimated in 2017 value of the dollar.

Source: DDCS; ConsultEcon, Inc.

Data in **Table VIII-2** present the assumed distribution of tickets and ticket sales by type over a six year period. Per capita average ticket revenue reflects mix of ticket prices based on the baseline ticket price assumptions and assumed inflation for the year under consideration as well as variations in the mix of ticket types sold. Year 3 is considered the "stable" year of operations. Members are assumed to enter free of charge. There is also provision made for Scottsdale residents attending on free days, a limited number of complimentary and VIP tickets, facility rental attendees and children under the age of 3. These are all included in the Free/Complimentary category.

Table VIII-2
Attendance Distribution and Ticket Price Assumptions
Desert Discovery Center

% to Total Attendance	Year 1	Year 2	STABLE YEAR 3	Year 4	Year 5	Year 6
Adult	35.6%	35.0%	34.0%	34.0%	34.0%	34.0%
Senior	12.5%	12.2%	12.0%	12.0%	12.0%	12.0%
Youth (3-12)	23.1%	22.5%	22.0%	22.0%	22.0%	22.0%
Student Group - Free	2.1%	2.3%	2.5%	2.5%	2.5%	2.5%
Student Group	2.5%	2.7%	3.0%	3.0%	3.0%	3.0%
Members	10.5%	11.2%	12.0%	12.0%	12.0%	12.0%
Facility Rentals	4.2%	4.6%	4.9%	4.9%	4.9%	4.9%
Free/Complimentary	9.5%	9.5%	9.6%	9.6%	9.6%	9.6%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Attendance By Type						
Adult	130,723	117,810	104,040	104,560	105,080	105,601
Senior	45,900	41,065	36,720	36,904	37,087	37,271
Youth (3-12)	84,823	75,735	67,320	67,657	67,993	68,330
Student Group - Free	7,711	7,742	7,650	7,688	7,727	7,765
Student Group	9,180	9,088	9,180	9,226	9,272	9,318
Members	38,556	37,699	36,720	36,904	37,087	37,271
Facility Rentals	15,422	15,484	15,000	15,075	15,150	15,225
Free/Complimentary	34,884	31,977	29,370	29,517	29,664	29,811
Total	**367,200**	**336,600**	**306,000**	**307,530**	**309,060**	**310,590**
Achieved Per Capita Ticket Revenue 1/						
Adult	$18.90	$18.90	$19.80	$19.80	$20.80	$20.80
Senior	$16.20	$16.20	$17.00	$17.00	$17.90	$17.90
Youth (3-12)	$11.90	$11.90	$12.50	$12.50	$13.10	$13.10
Student Group - Free	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Student Group	$6.50	$6.50	$6.80	$6.80	$7.10	$7.10
Members	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Facility Rentals	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Free/Complimentary	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Less Coupons & Discounts	($0.35)	($0.34)	($0.35)	($0.35)	($0.37)	($0.37)
Per Capita Average Revenue	**$11.31**	**$11.10**	**$11.37**	**$11.37**	**$11.95**	**$11.95**

1/ Year 1 ticket prices reflect compounded inflation rate of 2% per year from 2017 to 2021 dollar value. Actual pricing in 2021 dollars will depend on actual inflation and other factors and would be rounded accordingly.

Source: ConsultEcon, Inc.

Other Operating Revenues

As a cultural and educational not-for-profit destination organization, DDC will operate under the norms of such institutions nationally, adjusted for local conditions. In addition to ticket sales and memberships, there will be several categories of earned revenues created based on the DDC plan. Following are discussions of these opportunities.

The **Retail Shop** is assumed to be operated by DDC. Categories of merchandise will include books and educationally-oriented materials; high quality crafts and art objects, fine instruments such as binoculars, compasses etc.; a variety of branded and un-branded clothing reflective of the McDowell Sonoran Preserve, including DDC, Desert living, and the spirit of Scottsdale; and a line of hiking paraphernalia and clothing. Per capita retail sales are assumed at $3.90 per attendee. Outside sales by non-DDC visitors are assumed add an additional 15 percent in sales above the sales to DDC attendees. Cost of goods sold (COGS) are assumed at 54 percent of gift shop sales including the direct cost of a contracted merchandise buyer. The operating pro formas provide retail sales net of cost of goods sold.

A **Café/Restaurant** is assumed to be operated by outside vendors. Gross café/restaurant sales will include spending by DDC attendees as well as spending by people using the Gateway area and also people who make the café/restaurant a destination given the plan to provide diners with outstanding views in a pleasant café/restaurant setting. Volunteers and employees will be an additional market segment. This analysis assumes a base lease rate of $35.00 per square foot (in 2017 value of the dollar) for indoor square footage plus half that rate for the seated terrace areas, assuming a three year term increased at inflation for a second term. For the purposes of the plan, 6% of sales above the sales base are assumed to be revenue to DDC. The sales base is estimated based on $1.50 per capita or half of the gross sales that would be generated from the projected $3.00 per capita sales (not including non-visitor sales). **Appendix D** provides a preliminary analysis of a potential operating agreement with a Café /Restaurant operator and the net revenue to DDC that would result based on the attendance and café/restaurant projections included in this report.

Public Programs and Events will contribute Earned Revenues to DDC, as well. Interviews with Scottsdale hospitality leadership indicate that DDC will create a new and popular venue for business and social facility rentals. DDCS leadership plans to limit the number of events that extend beyond DDC regular hours of operation to 60 annually. At many similar facilities nationally, facility rentals have generated considerable attendance and revenues. Data in **Table VIII-3** provides a scenario representative of DDC Programs and Events within the context of DDCS' plans for such programs and events. All programs and events that occur during regular operating hours, plus up to 60 events and programs annually that end after regular hours have the opportunity to attract up to 15,000 visitors annually and have net operating revenues to DDC of $266,000 in current dollar value. In addition, the DDC-sponsored events would include fundraising events that will be critical to DDC's ongoing sustainability.

Other Earned Revenues and "Miscellaneous" revenues are assumed at 1 percent of operational revenues. These might include research fees, advertising within the facility, sale of publications, guided hikes, travel programs etc.

Programming Partners will contribute to DDC operations. For instance, ASU's Global Drylands Institute (GDI) is planning to locate a research Field Station at DDC. GDI will also be a program partner showcasing its local research and conservation efforts as well as providing a national and global perspective on its subject matter. This future partnership is still in its planning stage, but both GDI and DDCS have expressed great interest in the potential partnership and both recognize the tremendous benefits to each organization, to the public, and to conservation efforts that this partnership will create. The refinement of facility plans, programs and financial relationships is underway. At this time, there can be no estimate of any payments from GDI for use of the DDC facilities as these GDI payments have not been determined at the time of this plan.

Operating Assumptions

Data in **Table VIII-4** summarize key operating assumptions for DDC under the planned operating scenario.

Table VIII-3
Programs and Events Attendance and Revenue Potential
Desert Discovery Center

Facility Rentals and Receptions	Programs / Events	Estimated Program & Event Attendance	DDC Revenue Potential	Notes
Estimated Number of Major Rentals Per Year Up to 300 Attendees	35			150 to 300 Attendee Range. Assumes 25 evening and 5 day time.
Average Program / Event Attendees	200			
Target Attendance in Stable Year		**7,000**		
Average Room Rental	$2,000			Typical for Scottsdale Market.
Room Rental Revenue			$70,000	
Add on fees to Room Revenue as a Percent of Room Rental Fees	10%		$7,000	Most events include full meals or buffet.
Per Capita Food & Beverage	$75			
Target Food & Beverage Spend	$525,000			
Assumed DDC Percentage Share of Catering	15%			
Catering Revenue to DDC			$78,750	
DDC Revenue Potential			**$155,750**	
Estimated Number of Mid-Range Rentals	35			75 to 149 Attendee Range. Assumes 20 Evening and 15 day time.
Average Program / Event Attendees	125			
Target Attendance in Stable Year		**4,375**		
Average Room Rental	$1,000			
Room Rental Revenue			$35,000	
Add on fees to Room Revenue as a Percent of Room Rental Fees	10%		$3,500	
Per Capita Food & Beverage	$60			Includes a mix of events ranging from full meal to hor doevres only.
Target Food & Beverage Spend	$262,500			
Assumed DDC Percentage Share of Catering	15%			
Catering Revenue to DDC			$39,375	
DDC Revenue Potential			**$77,875**	
Estimated Number of Small Rentals Per Year	25			50 to 74 Attendee Range. Assumes 3 Evening and 22 day time.
Average Program / Event Attendees	60			
Target Attendance in Stable Year		**1,500**		
Average Room Rental	$750			
Room Rental Revenue			$18,750	
Add on fees to Room Revenue as a Percent of Room Rental Fees	10%		$1,875	
Per Capita Food & Beverage	$50			
Target Food & Beverage Spend	$75,000			
Assumed DDC Percentage Share of Catering	15%			
Catering Revenue to DDC			$11,250	
DDC Revenue Potential			**$31,875**	
DDC Sponsored Events	12			
Average Program / Event Attendees	175			
Target Attendance in Stable Year		**2,100**	**$0**	
Total Targeted DDC Attendance		**14,975**		
Total DDC Revenue Potential			**$265,500**	

Note: These include events during regular DDC hours and events that are fully or partially after DDC regular hours. Events that end after DDC closes are initially limited to 60 annually.

Source: Interviewed meeting and event planners, DDCS and ConsultEcon, Inc.

Table VIII-4
Operating and Revenue Assumptions, In Current Dollars Unless Noted
Desert Discovery Center

General			***Comments***
Year Assumed to Open to Public	2021		Fall of 2021, with fiscal years following that first FY2021-22 year of operations
Average Annual Inflation Rate	2.0%	1/	For period 2017 - 2026
Personnel & Benefits Annual Inflation Rate	3.0%	2/	For period 2021 - 2026
On-Campus Spaces			
Total DDC Gross Conditioned Space Under Roof	38,541		
Total Gross Non-Conditioned Space Under Roof	35,875		
Total Canopy Areas	34,058		
Total Un-Covered Space	7,018		
Total DDC on-Campus Spaces	115,492		
Total DDC Exhibit SF	28,542		
Indoor "Science Encounters" by GDI Exhibit SF	2,363		
Total Exhibit Space	30,905		
Off-Site DDC Building SF	5,400		Assumed based on current estimate of space needs.
Attendance			
Mid-Range Attendance	306,000		
Annual Attendance Growth after Year 4 of Operations	0.5%		
Admission Fees and Revenue			
Adult Ticket Price	$17.50		In current dollar value
Coupons & Discounts as a % of Per Capita Ticket Rev.	3.0%		
Ticket Price Increase % every other year	5.0%		After Opening Year
Number of Annual Free Days for Scottsdale Residents	12	3/	DDC Operating Plan - These are included in Free/Complimentary attendance category.
Family & Individual Memberships			
Number of Family, Individual & Supportive Memberships	4,590		Stable Year
Average Membership Fee	$119		
Annual Attendances Per Membership	8		
Retail			
Retail Area Gross Square Feet	1,430		
Per Capita Retail Sales	$3.00		
Potential Outside Retail Sales as a % of Attendee Sales	15%		Includes hikers, volunteers / employees and local residents plus on-line sales
Cost of Goods Sold as a % of Retail Sales	54%		Assumed to include "merchandise buyer's" costs
Food Service			
Café/Restaurant Indoor Gross Square Feet	2,043	4/	
Café Terrace Outdoor Square Feet	500		Estimated
Number of permanent seats	80		Additional seating to be located in "pre-function area" during busy periods of the year
Restaurant Base Lease Rate	$35	5/	For Indoor Areas, 50% of that rate for terrace
Percentage Rent - DDC Net Proceeds of Restaurant Gross Sales	6.0%	5/	On Sales above Assumed Base Sales
Assumed Sales Base (before Percentage Rent is applied)	$459,000		Assumed to be based on approximately $1.50 per capita on mid-range attendance in current value and held steady for a five year period
Per Capita Sales	$4.50	6/	Assumes that ticketed, free and member attendees are 90% of total attendees.
Outside Sales	15.0%		Includes hikers, volunteers and employees and local residents
Other Revenue			
Other Revenue as a percent of Earned Revenue	1%	7/	
Fund Raising Gala	$300,000	8/	Based on assumption of $300 attendees at $500 per ticket plus double based on gifts and pledges associated with the gala.
Operating Reserves			
Operating Reserves Goal in 2017 Value of Dollar	$6,300,000		Estimated at Stable Year Operating Budget Rounded to nearest $100,000. Based on DDCS fundraising prior to DDC opening.
Operating Reserve Assumption in 2021	$7,036,000		Based on operating reserves of 18 months, with 6 months expended during start up and 12 months as reserves with the after inflation draw equal to 3% of the corpus.
Annual additions to Operating Reserve Fund from City of Scottsdale in Current Dollar Value	$700,000		Assumed City payments for a five year period; initial 2021 and subsequent city payments are based on 2021 estimated value of the dollar.
Future Value of planned 2021 payments with level payments thereafter for five years	$758,000		Rounded to nearest $000
Annual Rate of Return on Total Operating Reserves	5%		Estimated based on typical total returns to capital given the assumed inflation rate.
Annual Operating Reserves Spend Rate	3%		The targeted use for Operating Reserve funds will be as a direct and primary source of funds for the Capital Reserves that are included in the ongoing Operating Budget.

1/ Assumed future inflation rate based on survey of economists prepared by Federal Reserve Bank of Philadelphia.
2/ Assumed future salary inflation rate based on survey of economists as presented in: WorldatWork 2016-2017 Salary Budget Survey, preliminary findings. Survey data collected through May 2016. And, U.S. Bureau of Labor Statistics: Employment Cost Index Summary for March 2017.
3/ An important part of DDC's plan for community inclusion is a free day for all Scottsdale residents once a month; in a stable year on average, these days are expected to have attendance similar to an annual high day attendance or about .5% of total annual attendance.
4/ Assumes 80 + seats in interior and on shaded café terrace. Additional as needed seating could be located in pre-function area during peak periods.
5/ As a future transaction, the estimate of a base rent is based on typical Scottsdale market conditions. Estimate is in current dollars. Lease based on base rent increases every other year starting in 2021, increased at assumed inflation rate for next term.
6/ Restaurant assumed to hold a liquor license. Restaurant gross sales estimated based on 50% of $9 per capita for DDC visitors, plus $11 average spend from an assumed 18,000 (50 per day) annual outside patrons who are drawn from trail users and from drive-up customers.
7/ Other revenues include revenue from guided tours and educational programs, paid sponsorship advertising, interest on operating accounts, and other miscellaneous sources.
8/ Estimate by DDCS

Source: Swaback Partners; DDCS; ConsultEcon, Inc.

Non-Operational Revenues

An important revenue source for facilities such as DDC are non-operational revenues derived from sources such as endowment or operating reserves, corporate sponsorships, contributions, fundraising events, grants, and supportive level memberships.

This analysis assumes that the internal capacity to fundraise for DDC will be appropriate to the scale of the organization, and that the organization will generate "contributed," endowment, and other revenues as an ongoing and essential component of its operation. DDC is expected to engage in ongoing fundraising, hold fundraising events, to secure operating grants, and to establish financial reserves and endowment. Gifts in-kind such as services, marketing, discounts on utilities, supplies, and other non-monetary support are also a source of contributed support. This is typical in the Phoenix Metro area and elsewhere, and it is reasonable to assume that DDC will be well-positioned to attract such revenues. Further, developing a unique, cause-related institutional position statement, vision, and mission will enhance the institution's ability to attract operating funds.

Under this plan, DDC will be active in generating substantial non-operational revenues. Nationwide, virtually all not-for-profit museums, conservation, and nature-based attractions and science centers receive a substantial share of their total revenues from such sources. The amounts of non-operational revenues that such facilities receive can vary widely based on their particular circumstances, and the aggressiveness of their organizations. Data in **Appendix E** provides a summary of the national experience regarding major categories of revenues for science centers with a focus on non-operational revenues.

Operating Reserve Fund

DDC is planned to open with an operating reserve fund of $6.3 million in current dollar value that is part of the initial capital campaign. The operating reserve fund as planned has characteristics of an endowment in providing a steady annual stream of non-operational funds to DDC, but can also be drawn down for special needs or reinvestment as needed. Thus, the operating reserve fund serves as a contingency against unexpected events or for special opportunities. It is planned that detailed and strict rules for use of the operating reserve fund will be established in the operating incorporation.

The targeted dollar amount of the operating reserve fund is the equivalent of one year's operating expenses, including funding of the capital reserve. The operating reserves are assumed to grow at a rate of 3 percent annually in addition to the rate of inflation of 2 percent, such that the total assumed annual return of 5 percent. 3 percent of the return will be drawn down annually to support DDC operations. In a stable year current dollar value, this equates to $216,000. These funds become a component of the non-operational revenues as discussed above. Growth in the operating reserve fund equates to growth in non-operational revenues.

Over time, an important goal of DDC will be to increase the dollar value of its operating reserve fund. In this Plan the operating reserve fund would grow at the rate of inflation to preserve its purchasing power. However, real growth in the fund is a DDC target and will be pursued to the extent possible. A targeted annual addition to the operating reserve fund from City of Scottsdale is planned to be requested for a five year period. For planning purposes that request is included in this operating plan. The proposed annual City funding amount in current dollar value is $700,000, with escalation based on inflation up to the opening date. See Table VIII-4 for additional assumptions regarding operating reserves.

DDC Revenue Potential

DDC has substantial operational revenue potential from admissions, memberships, gift shop, vending, café, facility rentals and miscellaneous sources. Data in **Table VIII-5** summarize operational revenue potential for DDC for its initial six year operating period. Under the assumptions of this analysis, DDC has $4.6 million in operational revenue potential in a stable year in 2017 value of the dollar. A targeted $1.7 million in annual, current dollar non-operational revenues is targeted for a stable year of operations. This amount would fully cover operating expenditures including the planned capital reserve fund. Therefore, DDC operational revenues have been estimated to be about 73 percent of total revenues, with the remaining 27 percent from non-visitor related revenue sources.

This is a favorable ratio of operational and non-operational revenue sources. DDCS plans to seek larger amounts to fund additional programs and activities, enhance its market position, build its endowment and capital reserves, and to fund capital improvements.

For large nature and science based educational facilities such as DDC, operational revenues (such as ticket sales, retail, memberships etc.) can range from 25 to 80 percent of total revenues, with the remaining 20 to 75 percent derived from non-operational revenues (such as contributed, endowment and other revenue sources). Achieving such performance requires DDCS, as planned, to secure sources of on-going operating along with capital fund-raising for the project.

Table VIII-5
Revenue Potential
Desert Discovery Center

Year	2021	2022	2023	2024	2025	2026	Stable Yr Att.	
			STABLE				(in current	Percent
	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	dollars)	to Total
TOTAL ATTENDANCE	367,200	336,600	306,000	307,530	309,060	310,590	306,000	
Per Capita Ticket Revenue	$11.31	$11.10	$11.37	$11.37	$11.95	$11.95	$10.04	
REVENUE								
Operational Revenue								
Ticket Revenue	$4,154,815	$3,736,619	$3,480,511	$3,497,914	$3,691,892	$3,710,168	$3,072,087	48.9%
Membership Revenue	621,780	607,590	619,650	622,350	658,880	661,720	546,210	8.7%
Net Retail	630,783	589,783	546,889	560,616	574,673	589,069	485,622	7.7%
Café/Restaurant Revenue	177,731	171,024	167,344	169,959	176,304	179,043	147,728	2.4%
Programs, Events and Rentals 1/	287,386	293,133	298,996	306,501	314,186	322,057	265,500	4.2%
Other Revenue	58,725	53,981	51,134	51,573	54,159	54,621	45,171	0.7%
Total Operational Revenue	**$5,931,220**	**$5,452,131**	**$5,164,525**	**$5,208,913**	**$5,470,095**	**$5,516,678**	**$4,562,318**	**72.7%**
Non-Operational Revenues 2/								
Operating Reserves Funds 3/	$233,820	$261,236	$289,201	$317,725	$346,820	$353,756	$216,014	3.4%
Fund Raising Events 4/	324,730	331,224	337,849	344,606	351,498	358,528	300,000	4.8%
5/	626,713	1,173,514	1,530,118	1,643,340	1,544,390	1,687,533	1,198,314	19.1%
Total Non-Operational Revenues	**1,185,263**	**1,765,974**	**2,157,168**	**2,305,671**	**2,242,707**	**2,399,817**	**1,714,327**	**27.3%**
TOTAL REVENUE	**$7,116,484**	**$7,218,105**	**$7,321,693**	**$7,514,584**	**$7,712,802**	**$7,916,494**	**$6,276,646**	**100.0%**
Planned Operating Reserves								
Baseline Operating Reserves	$7,036,000							
City's Operating Reserves Contribution 6/	758,000	$758,000	$758,000	$758,000	$758,000		$673,082	
Retained Earnings		155,880	174,158	192,801	211,817	$231,213	154,647	
Total Operating Reserves	$7,794,000	$8,707,880	$9,640,038	$10,590,838	$11,560,655	$11,791,868	$8,560,078	

1/ This Revenue source grows after stable year at the same rate as increases in attendance.

2/ Virtually all not-for-profit conservation and education institutions raise funds through contributions, grants, gifts, non-cash goods and services and other contributed revenues. Gifts in-kind such as services, marketing, discounts on utilities, supplies etc. are also a source of contributed support. Estimates of Non-Operational Revenue have been limited in this plan to the extent required. Higher amounts would actually be sought to create additional operating reserves and to enhance DDC programs and operations.

3/ The targeted use for Operating Reserve fund proceeds will be as a direct and primary source of funds for the Capital Reserves that are included in the ongoing operating budget. See Table VIII-6.

4/ Estimate by DDCS.

5/ Represents potential revenue from grants, gifts, corporate sponsorships, fundraising events and other relevant sources. Also to be included are payments from GDI for use of the DDC facilities. These GDI payments have not been determined at the time of this plan. In this operating plan the required amount of Other Non-Operational Revenues in early years is lower than in stabilized years due to the projected early year surge in attendance and memberships. DDC's goal is to actually achieve higher levels of Non-Operational Revenues in early years to add additional funds to its Operating Reserves and to make any additional needed investments in DDC or operating expenditures necessary to maximize operating success and mission fulfillment. Note that this analysis does not include any initial or ongoing payments by GDI for use of its building and the overall site, nor payments for any operational services that may be provided by DDC. such operating arrangements have not been finalized at this time.

6/ A targeted annual addition to the Operating Reserve Fund from City of Scottsdale will be requested for a five year period. For planning purposes that request is included in this operating plan. The proposed annual City funding amount in Current Dollar Value is $700,000, with escalation based on inflation up to the opening date. See Table VIII-4 for additional assumptions regarding Operating Reserves.

NOTE: DDC is expected to open in 2021, therefore, Year 1 represents the estimated inflated 2021 dollar value.

Source: DDCS and ConsultEcon, Inc.

Revenue Summary

Based on the existing DDC plan, its attendance potential, ticket pricing, memberships and plans for retail, café, on-site programs, and events regarding non-operational revenues, data in Table VIII-5 present a six-year estimate of revenue potential for DDC. The initial years of operation benefit from higher attendance levels than is expected in the stable year. The first year estimate is in current dollars, with future years assuming a 2.0 percent annual inflation rate. The actual dollar amounts for Year 1 and subsequent years will depend on future rates of inflation, project performance, and the number of years the project takes to develop before opening.

The stable year Operational Revenue potential of DDC is estimated to be approximately $4.6 million in current dollars based on the findings and assumptions of this report. Non-Operational Revenues have been estimated at $1.7 million in a stable year in current dollars (27% of total revenues).

OPERATING EXPENSE PROFILE

Museums and nature-based sites, like DDC, are largely fixed cost operations. The costs with little variability include utilities, insurance, most personnel, exhibit care, basic marketing, and maintenance. However, there is some variability in expenses based on attendance levels such as visitor services, education programs, supplies, marketing, and so forth. Over time, an institution can adjust its operation upward or downward to fit its revenue profile. In this analysis, the operating expense profile was developed to reflect the planned program and the experience of other comparable projects of this type. Inputs to the operating expenses analyses include the experience of comparable facilities and the "metrics" of the new facility – its size, program and attendance potential. Increasingly detailed operating expense plans can be made in subsequent planning, design, and construction phases.

The expenses reflect a tightly operated project with a "bottom line" orientation. These profiles do not reflect the capitalized reinvestment in DDC that will be necessary over time for the physical structure and the exhibits. If higher revenues than those presented are attained, additional programs and reinvestment will be possible. Following are discussions of some of the major expense categories for the project.

Personnel Expenses

Data in **Table VIII-6** illustrate planned staffing for DDC based on facility size and program, estimated attendance patterns, and operating scenario. Compensation levels for the project have been developed based on the experience of comparable projects in this region of the country, museum industry salary surveys, and State of Arizona Department of Labor wage data. These salary levels are for comparative and analytical purposes only. They are not meant to be used to set the compensation levels for any given individual. An average fringe rate for taxes and benefits of 30 percent of total full-time, part-time, and seasonal salaries is used in this analysis.

Table VIII-6
Illustrative Personnel Positions and Salaries
Desert Discovery Center

Position [2/]	Annual Salaries (FTE) [1/]	Part-Time Seasonal Salaries	Number of Full Time Positions	Number of Part Time Positions	Number of Peak Season Part Time Positions	Full Time Employees	Part Time and Seasonal Employees	Total Salary Budget
Administration								
Executive Director [3/]	$150,000		1			$150,000		**$150,000**
Receptionist/Administrative Asst.	$32,000		1	1		$32,000	$16,000	**$48,000**
CFO / Personnel Manager	$90,000		1			$90,000		**$90,000**
Accountants / Bookkeepers	$45,000		2	1		$90,000	$22,500	**$112,500**
Receptionist / Administrative Asst.	$32,000		1			$32,000		**$32,000**
Public Outreach								
VP of External Affairs	$85,000		1			$85,000		**$85,000**
Assistant Marketing Manager	$50,000		1			$50,000		**$50,000**
Marketing Coordinator / Administrative Asst.	$32,000		1			$32,000		**$32,000**
Programs & Events Coordinator	$45,000		1			$45,000		**$45,000**
Facility Rentals Coordinators	$35,000		1	1		$35,000	$17,500	**$52,500**
VP of Development	$85,000		1			$85,000		**$85,000**
Assistant Development Director	$60,000		1			$60,000		**$60,000**
Grant Writer / Membership Coordinator	$50,000		1			$50,000		**$50,000**
Development & Membership Adm. Asst.	$34,000		1			$34,000		**$34,000**
Retail & Admissions								
Museum Store Manager (Note outside Buyer) [4/]	$45,000		1			$45,000		**$45,000**
Assistant Store Manager	$38,000		1			$38,000		**$38,000**
Visitor Services Manager	$40,000		1			$40,000		**$40,000**
Group Sales Reservationist / Membership Sales	$29,000		1			$29,000		**$29,000**
Cashiers - Admissions/Retail [5/]	$24,000		4	10		$96,000	$120,000	**$216,000**
Cashiers - Admissions/Retail (Peak Season)		$6,000			6		$36,000	**$36,000**
Visitor Services and Education Programs								
Manager of Education Programs and School Groups	$60,000		1			$60,000		**$60,000**
Administrative Asst. & Scheduler	$35,000		1			$35,000		**$35,000**
Volunteer Coordinator / Lead Trainer for Visitor Assistants and Volunteers	$35,000		1			$35,000		**$35,000**
Visitor Research & Evaluation Associate	$40,000		1			$40,000		**$40,000**
Public Programs Manager / Outreach Coordinator	$40,000		1			$40,000		**$40,000**
Educators	$35,000		2	2		$70,000	$35,000	**$105,000**
Visitor Assistants / Program Presenters	$26,000		10	8		$260,000	$104,000	**$364,000**
Visitor Assistants (Peak Season)		$6,000			6		$36,000	**$36,000**
Volunteers								
Exhibits, Visitor Experiences & Curatorial								
Exhibitions and Multimedia Program Manager	$60,000		1			$60,000		**$60,000**
IT / Multimedia / Web Technician	$55,000		1			$55,000		**$55,000**
Exhibit Technicians	$40,000		1			$40,000		**$40,000**
Curatorial Assistant	$35,000		1			$35,000		**$35,000**
Biologist - Lead Live Animal Presenter/Trainer [6/]	$45,000		1			$45,000		**$45,000**
Biologists / Horticulturists (Interns)		$12,000		2			$12,000	**$12,000**
Plant Operations								
Facility Manager / Engineer	$58,000		1			$58,000		**$58,000**
Assistant Facility Manager / Engineer	$45,000		1			$45,000		**$45,000**
Custodians [5/]	$21,000		2	2		$42,000	$21,000	**$63,000**
Horticulturist [6/]	$45,000		1	1		$45,000	$22,500	**$67,500**
Groundskeepers [5/]	$24,000		2			$48,000		**$48,000**
Chief of Security	$55,000		1			$55,000		**$55,000**
Shuttle Drivers [7/]	$25,000	$6,250		3	2		$50,000	**$50,000**
Security Guards [5/ 8/]	$24,000		2	5		$48,000	$60,000	**$108,000**
Total			**55**	**36**	**14**	**$2,234,000**	**$552,500**	**$2,786,500**
Taxes and Benefits [9/]	**30% of Total Salaries**							**$835,950**
Total Salaries & Benefits Budget								**$3,622,450**
Total Full Time Equivalent Positions (FTE'S)								**76.5**
Volunteers [10/]							**Targeted at:**	**300 +**

1/ Salary assumptions (except as noted) based on *ASTC 2013 Salary Survey* Median salaries by similar positions escalated by estimated 6% increase in Inflation from 2013 to 2017. Also reviewed were *AAM Salary Survey* for 2014; and State of Arizona Department of Labor Current Salary levels for hourly wage positions translated to Full Time or Part Time positions. An assumption of 6% total wage inflation since 2013 salary levels based on U.S. Bureau of Labor Statistics: Employment Cost Index Summary for March 2017.

2/ Part Time Employees Calculated at 50% FTE, seasonal workers at 25% FTE. Volunteers would serve to supplement some positions such as Visitor Assistants.

3/ Executive Director Salary assumption based on confidential data from other similarly scaled nature based education and conservation organizations.

4/ Assumes an outside buyer, whose cost is reflected in "cost of goods sold"

5/ Hourly personnel assumed to include: cashiers, custodians, groundskeepers and security guards. Their annual wages are estimated based on data from Arizona Office of Economic Opportunity, Arizona Labor Statistics; 2017.

6/ Estimated salaries based on 2009 American Public Gardens Association Salary Survey as adjusted for 8 years at an assumed 2% average annual increase.

7/ Includes an estimated 2,000 hours of driver time. This would cover 60 after-hours events and approximately 75 days with two shuttle buses and 50 days with one shuttle bus.

8/ It is assumed that there will be a daily 24 hour security presence at DDC. In addition programs and events outside of regular operating hours will have an additional security guard.

9/ Tax and Benefits Assumptionsincludes: Employer FICA contribution, Federal unemployment tax, estimated 16% of wages for health and dental insurance, and estimated 2% of wages for matching of 401K withholdings by

10/ Targeted volunteers contributing their time and talents to DDC and outreach, conservation and education activities is based on a future partnership with The McDowell Sonoran Conservancy, as well as with GDI and the development of its own partnership programs.

Note: The on-site café is proposed as a concession operation by a Scottsdale business and would supply its own labor.

Source: As cited; DDCS and ConsultEcon, Inc.

The staffing profile for the project includes 55 full-time year-round employees, 36 part-time employees, and 14 seasonal employees, for a total of 76.5 full-time equivalent positions. In addition, an allowance has been included (in addition to noted seasonal positions and interns) annually for various part-time, seasonal, and intern wages. An average cost of $16.50 per hour (including employer taxes and other direct costs) for 2,500 hours has been assumed. As funding and operating experience allow, additional staff positions will enrich the offerings and operations of DDC. The total planned payroll for DDC, based on this staffing profile, is estimated at $3.6 million inclusive of overhead and benefits plus $41,250 as an allowance for various part-time, seasonal and intern wages. Personnel direct salary and fringe benefit costs are approximately 58 percent of total operating expenses. Personnel costs tend to increase at a rate higher than the rate of inflation; therefore, this analysis assumes personnel related costs such as salaries and benefits will increase at a rate of 3.0 percent per year.

Like many non-profit attractions, staff positions will be supplemented by volunteers, who will have interpretive duties as well as duties associated with education, exhibits, and other important functions, such as supporting admissions and retail. Based on data on the comparable facilities and planned programming partnerships at DDC, a target of 300+ volunteers has been established. A full time volunteer coordinator / trainer position is included in the staffing plan. The number of volunteers will ultimately depend on the size and scope of facility's programming, education approach, opportunities for meaningful service, quality of the volunteer program, and so forth.

Non-Personnel Operating Expenses

Data in **Table VIII-7** provide a stable year planned operating expense budget in current dollars based on detailed factors for individual expense items for DDC. The off-site administration building square footage has been included in the building utilities, maintenance and insurance categories. The expenses for personnel assigned to that location are also included in overall DDC operating expenses.

Table VIII-7
Illustrative Annual Operating Expenses
Desert Discovery Center

Project Parameters					
DDC Spaces	**Amount**				
Total DDC Gross Conditioned Space Under Roof	38,541				
Total Gross Non-Conditioned Space Under Roof	35,875				
Space Under Roof	74,416				
Total Canopy Areas	34,058				
Total DDC Space	108,474				
Total DDC Exhibit SF	28,542				
Indoor "Science Encounters" by GDI Exhibit SF	2,363				
Total Exhibit Space	30,905				
Off-Site DDC Building SF	5,400				
Annual Attendance	306,000				
Students in Groups	16,830				**Percent**
Employees (FTEs)	76.5			See Personnel Schedule	**to Total**
Detailed Budgetary Analysis	**Annual Amount**			**Expense Factors** [1/]	
Salaries (FTE, PTE)	$2,786,500			See Personnel Schedule	44.3%
Fringe / Benefits	$835,950			See Personnel Schedule	13.3%
Allowance for Interns & Seasonal Personnel	$41,250			Budgeted at a total cost of $16.50/hour for 2,500 hours in 2021 Dollar Value	0.7%
Personnel Support Expenditures [2/]	$76,500	@	$1,000	Per FTE	1.2%
Professional/Contract Services	$153,000	@	$2,000	Per FTE	2.4%
Voice/Data/Web Presence	$114,750	@	$1,500	Per FTE	1.8%
Equipment Rental/ Lease	$38,250	@	$500	Per FTE	0.6%
Advertising	$612,000	@	$2.00	Per Attendee	9.7%
Hard Copy Communications [3/]	$76,500	@	$0.25	Per Attendee	1.2%
Educational Kits	$54,698	@	$3.25	Per Student	0.9%
Events & Programs	$150,000			Budgeted	2.4%
Changing Exhibits	$150,000			Budgeted	2.4%
Exhibit Reinvestment / Supplies	$153,000	@	$0.50	Per Attendee	2.4%
Facility Supplies & Materials	$229,500	@	$0.75	Per Attendee	3.6%
Utilities for Buildings and Exterior SF	$65,912	@	$1.25	Per DDC Interior SF, plus 20% for Exterior SF. Note that substantial solar electric generation is planned with the project; net metering is assumed.	1.0%
Insurance	$109,747	@	$1.25	Per DDC SF under roof, plus 10% for Exterior SF	1.7%
Repairs & Maintenance	$143,669	@	$1.50	Per DDC Under Roof, plus 20% for Exterior SF	2.3%
Grounds keeping/Landscaping Supplies & Replacement	$30,000	@	$2,500	Allowance Per Month	0.5%
Parking Maintenance	$0			City of Scottsdale assumed to maintain parking	0.0%
Other Operating Expenses / Contingency	$174,637	@	3%	Of Other Operating Expenses	2.8%
Subtotal Operating Expenses	**$5,995,862**				95.2%
Capital Reserves	**$299,793**	@	5%	of Op. Expenses	4.8%
Total Operating Costs	**$6,295,655**				100.0%
Operating Analysis					
Operating Expense Per SF	$84.60		Includes Space Under Roof		
Operating Expense Per Exhibit SF	$203.71				
Operating Expense Per Visitor	$20.57				
Attendees Per FTE	4,000				
Op. Exp Per FTE	$82,296				
Square Feet Per FTE	504				

1/ Factors are based on industry standards, the specific attributes of the project and local conditions.
2/ Includes Uniforms, Travel, Meetings and Training, Dues and Subscriptions.
3/ Includes: Printing/Copying & Publications, Brochures and Maps, Postage & Shipping.
Source: DDCS; Swaback Partners; and ConsultEcon, Inc.

Following is a discussion of selected individual expense categories.

Advertising, Printing, and Publications

Advertising, printing, and publications include the design, production and distribution expenses for internet, television, radio, newspaper, outdoor posters, billboards, and other printed matter including office stationary and letterhead; press release packages; educational kits; tour guides and others. In addition, a compelling and informative DDC website will be prepared and maintained. It is assumed that DDC will prepare a marketing plan appropriate for the facility, the attendance potential and the marketing channels in the Scottsdale area. DDC is expected to receive much free publicity by local media stations and sources initially and over time. **Appendix F** provides a Preliminary Marketing Strategy for DDC.

Professional Services

Professional services include consulting fees, tax preparation and auditing, legal fees, office equipment maintenance contracts, consulting contracts for marketing, benefits, information technology etc. budgeted at $2,000 per FTE for $153,000.

Facility Supplies and Materials

Supplies and materials include consumable items such as office supplies, custodial and building maintenance supplies, rest room paper products and incidental supplies spending in all departments. In total facility supplies and materials expenses are estimated at $230,000. Supplies and material expenses are based on comparable organization data. Grounds keeping supplies are included; however, these will not be a large factor, as native plants will be used and these will not have excessive demands for supplies and maintenance.

Other Administrative Expenses

Other administrative expenses are included in the plan in several categories include voice/data/web presence; equipment rental/ lease, postage and shipping; equipment rental; personnel support expenditures (uniforms, travel, meetings and training, dues and subscriptions and other costs. Projections for other administrative expenses have been based on comparable organization data. Other operating expenses / contingency account for operating contingencies and discretionary departmental expenses.

Utilities, Repairs and Maintenance, and Insurance

DDC's utility costs have been estimated on a preliminary basis including the inclusion of a solar panel array, the limited amount of conditioned space, largely daytime operations, the assumption of highly efficient building systems for both electricity and water, and based on the experience of other institutions. As a modern new facility with "green" design, allowances for savings have been included (lowered per square foot costs) given facility design, and from planned, renewable energy generation on-site, efficient design and planned recycling policies. The utilities budget includes net electricity costs after on-site electric generation (including outdoor lighting), air handling (HVAC), exhibit and general lighting, as well as other uses, energy for heating and cooling, public services, and charges for water and sewage. Repairs and maintenance are based on new buildings, and insurance costs are based on typical amounts for museums and industry current experience.

Events and Programs

DDC will offer special events and programs. This approach of actively engaging the community has been successful elsewhere and is planned as an important part of the DDC experience. A budget of $150,000 annually has been allocated in this plan for such purposes. In addition, it is anticipated that DDC will seek sponsors for such events.

Changing Exhibits

The production and/or lease of changing exhibits are an increasingly important component of museum and comparable facilities operations nationally. Changing exhibits help meet mission and generate new and repeat visitation. Changing exhibits produced in-house provide an opportunity to focus on local relevant topics and to utilize in-house expertise and creativity. The programming partners, especially GDI, plan to assist in presenting relevant and educational exhibits and/or events that support the changing exhibit program at DDC. It is planned that the programming partners will have funds that they will use to help create changing exhibits and programs as well as the active involvement of their personnel. The plan for DDC includes changing exhibit space and it is expected that changing exhibits will be offered annually. This budget has allocated $150,000 annually for such purposes, based on observed costs for such exhibit programs and the active involvement of GDI and other programming partners.

Exhibit Reinvestment & Supplies

This operating budget category covers normal upkeep and maintenance of exhibits and any consumables that may be included. Reinvestment in and maintenance of the exhibits is essential to maintaining a "fresh" face to the public and in keeping all exhibits in good working order. The full replacement of exhibit areas over time will be based on new capital campaigns, and the costs will be a capitalized expenditure. Annual repair and improvement, however, should be budgeted as a recurring and ongoing process. This budget includes approximately $153,000 for this cost based on $0.50 per attendee (in current value of the dollar) to reflect addressing the normal wear and tear on the exhibit areas.

Capital Reserves

A capital reserves fund should be in place to cover major non-recurring expenses for mechanical, electrical and plumbing repairs, and maintenance contracts. These costs are expected to be less during the early years of operation due to new construction and extended warranty periods. Capital reserves may also contribute to future changing exhibits, minor building improvements and replacement of large equipment under heavy use such as exhibit lighting and HVAC units. This reserve can also double as an operating expense contingency fund in emergencies. Contributions to this fund are usually made from surplus Non-Operational Revenues, but can also be funded through fundraising. An annual budget of approximately $300,000 or 5.0 percent of total operating expenses for replacement reserves is included in this analysis.

Total Operating Costs

Total operating costs including capital reserves are estimated at approximately $6.3 million in a stable year and in current dollar value. Data in **Table VIII-8** summarize the estimated DDC operating costs for a six-year period. It is important to note that Year 1 of the plan is in 2021 dollars. The actual amounts for Year 1 and subsequent years will depend on future inflation, the number of years before opening and the actual budgets put into place.

Table VIII-8
5-Year Operating Expenses in Future Dollars
Desert Discovery Center

Year	2021	2022	2023	2024	2025	2026	Stable Yr	
Operating Expenses	YEAR 1	YEAR 2	STABLE YEAR 3	YEAR 4	YEAR 5	YEAR 6	(in current dollars)	Percent to Total
Salaries (FTE, PTE)	$3,136,230	$3,230,317	$3,327,227	$3,427,044	$3,529,855	$3,635,750	$2,786,500	44.3%
Fringe / Benefits	940,869	969,095	998,168	1,028,113	1,058,956	1,090,725	835,950	13.3%
Allowance for Interns & Seasonal Personnel	46,427	47,820	49,255	50,732	52,254	53,822	41,250	0.7%
Personnel Support Expenditures	82,806	84,462	86,151	87,874	89,632	91,425	76,500	1.2%
Professional/Contract Services	165,612	168,924	172,303	175,749	179,264	182,849	153,000	2.4%
Voice/Data/Web Presence	124,209	126,693	129,227	131,812	134,448	137,137	114,750	1.8%
Equipment Rental/ Lease	41,403	42,231	43,076	43,937	44,816	45,712	38,250	0.6%
Advertising	794,938	743,267	689,211	706,511	724,226	742,368	612,000	9.7%
Hard Copy Communications	99,367	92,908	86,151	88,314	90,528	92,796	76,500	1.2%
Educational Kits	59,422	60,390	61,598	63,144	64,728	66,349	54,698	0.9%
Events & Programs	162,365	165,612	168,924	172,303	175,749	179,264	150,000	2.4%
Changing Exhibits	162,365	165,612	168,924	172,303	175,749	179,264	150,000	2.4%
Exhibit Reinvestment / Supplies	165,612	168,924	172,303	175,749	179,264	182,849	153,000	2.4%
Facility Supplies & Materials	248,418	253,387	258,454	263,623	268,896	274,274	229,500	3.6%
Utilities for Buildings / Exterior	71,345	72,772	74,227	75,712	77,226	78,770	65,912	1.0%
Insurance	118,794	121,170	123,593	126,065	128,586	131,158	109,747	1.7%
Repairs & Maintenance	155,512	158,622	161,794	165,030	168,331	171,698	143,669	2.3%
Grounds keeping/Landscaping Supplies & Replacement	32,473	33,122	33,785	34,461	35,150	35,853	30,000	0.5%
Parking Maintenance 1/	-	-	-	-	-	-	-	0.0%
Other Operating Expenses / Contingency	189,032	189,032	189,032	189,032	189,032	189,032	174,637	2.8%
Total Operating Expenses	**$6,797,199**	**$6,894,363**	**$6,993,405**	**$7,177,508**	**$7,366,690**	**$7,561,095**	**$5,995,862**	**95.2%**
Capital Reserves 2/	**$339,860**	**$344,718**	**$349,670**	**$358,875**	**$368,334**	**$378,055**	**$299,793**	**4.8%**
Total Operating Costs	**$7,137,059**	**$7,239,081**	**$7,343,075**	**$7,536,383**	**$7,735,024**	**$7,939,149**	**$6,295,655**	**100.0%**

1/ Parking areas assumed to be maintained by City.
2/ Capital Reserves include funds for equipment replacements and minor building repairs/improvements.
Source: DDCS and ConsultEcon, Inc.

OPERATING POTENTIAL SUMMARY

Based on the detailed Operational Revenue potential and operating expense analyses presented earlier, data in **Table VIII-9** provide combined planned operating revenues and operating expense for the DDC, based on the mid-range attendance scenario. In the early years of the project, when attendance is higher than in a stable year, operational revenues are likely to be higher than in later stable years. Over a six-year period there will be some variability in operating performance based on the years' individual circumstances (tourism cycles, weather patterns, the national economy etc.), with higher levels of non-operational revenues allowing higher levels of cash flow and/or enhanced operations.

Table VIII-9
Net Income Summary
Desert Discovery Center

	2021 YEAR 1	2022 YEAR 2	2023 STABLE YEAR 3	2024 YEAR 4	2025 YEAR 5	2026 YEAR 6	Stable Year - Current Value of Dollar [1/]
Revenues							
Operational Revenues	$5,931,220	$5,452,131	$5,164,525	$5,208,913	$5,470,095	$5,516,678	$4,562,318
Non-Operational Revenues							
Operating Reserves Interest [2/]	$233,820	$261,236	$289,201	$317,725	$346,820	$353,756	$216,014
Fund Raising Events [3/]	324,730	331,224	337,849	344,606	351,498	358,528	300,000
Other Non-Operational Revenues [4/]	647,289	1,194,489	1,551,501	1,665,139	1,566,612	1,710,188	1,217,323
Total Non Operational Revenues	$1,205,839	$1,786,950	$2,178,551	$2,327,470	$2,264,930	$2,422,472	$1,733,336
Total Planned Revenues	**$7,137,059**	**$7,239,081**	**$7,343,075**	**$7,536,383**	**$7,735,024**	**$7,939,149**	**$6,295,655**
Expenses							
Operating Costs	$6,797,199	$6,894,363	$6,993,405	$7,177,508	$7,366,690	$7,561,095	$5,995,862
Capital Reserves	339,860	344,718	349,670	358,875	368,334	378,055	299,793
Total Operating Costs and Reserves	**$7,137,059**	**$7,239,081**	**$7,343,075**	**$7,536,383**	**$7,735,024**	**$7,939,149**	**$6,295,655**
Net Revenue	$0	$0	$0	$0	$0	$0	$0

1/ Revenue and expense in current dollars.

2/ See Table VIII-5 for derivation of planned Operating Reserves and proceeds from this fund.

3/ Estimate by DDCS.

4/ Virtually all not-for-profit conservation and education institutions raise funds through contributions, grants, gifts, non-cash goods and services and other contributed revenues. Giftsin-kind such as services, marketing, discounts on utilities, supplies etc. are also a source of contributed support. Estimates of Non-Operational Revenue have been limited in this plan to the extent required. Higher amounts would actually be sought to create additional operating reserves and to enhance DDC programs and operations.

NOTE: DDC is expected to open in 2021, therefore, Year 1 represents the estimated inflated 2021 dollar value.

Source: DDCS and ConsultEcon, Inc.

Comparison to Case Studies

Data in **Table VIII-10** compare selected operating characteristics of DDC under a mid-range attendance scenario to the case studies in this report. These data indicate that the DDC's operating profile is consistent with the experience of the case studies.

Table VIII-10
Comparison of Desert Discovery Center Operating Characteristics with Case Studies

Name	Governance Structure	Earned Revenue	Contributed Revenue	Operating Expenses	Earned Revenue as a % of Operating Exp.	Full-Time Equivalent (FTE) Employees 1/	Number of Volunteers	Operating Expenses per FTE Employee
Arizona-Sonora Desert Museum	Non-Profit	$6,010,000	$2,380,000	$7,950,000	76%	136	474	$58,000
Desert Botanical Garden 2/	Non-Profit	$7,961,000	$5,383,000	$12,943,000	62%	130	790	$100,000
High Desert Museum	Non-Profit	$2,594,000	$2,495,000	$4,102,000	63%	45	237	$91,000
Las Vegas Springs Preserve 3/	Public Water District and Non-Profit	$2,643,000	$4,852,000	$7,495,000	35%	56	250	$134,000
Living Desert	Non-Profit	$7,473,000	$2,096,000	$9,637,000	78%	112	511	$86,000
Average		$5,336,200	$3,441,200	$8,425,400	63%	95.80	452	$93,800
Average w/o Las Vegas 3/		$6,009,500	$3,088,500	$8,658,000	69%	$106	503	$83,750
Desert Discovery Center Plan	Non-Profit	$4,562,318	$1,433,336	$6,295,655	72%	76.50	300	$82,000

1/ Part-time employees at 50% of full-time employee and seasonal employees at 25% of full-time employee.
2/ The Desert Botanical Garden has 130 FTE during its peak season; baseline FTE is 93.
3/ The Las Vegas Water District provides large majority of non-operational revenue, as part of their public education and conservation mandate.
Note: Figures are rounded to the nearest 1,000.
Source: Facilities profiled, Guidestar, and ConsultEcon, Inc.

Operating Potential Summary

Based on the analysis in this report, DDC has the potential to operate successfully over time, if the assumptions regarding quality of facility development, operations, and annual fundraising are met. This project will derive substantial income from tickets, retail, food service, facility rentals, memberships, and programs; however, active and successful fundraising is vital to sustain DDC financially. In this plan and in current value of the dollar, in a stable year, operating expenses are planned at $6.3 million annually. In this scenario, DDC earns $4.6 million – about 72 percent of the revenues needed to support the facility's operating costs. This is a strong rate for a successful, well-run facility of this scale and type, and reflects the outstanding site, the attractive facility plan, programming partners and the organizational profile and expense budgets as outlined herein.

In addition to DDC's substantial capacity to generate operational revenues, DDC like virtually all not-for-profit institutions of its type, will need to secure non-operational revenues to sustain operations. The non-operational revenues target has been set only at the level needed to cover the operating expenses of the plan. The non-operational revenues assumed in this plan are well within the experience of other major conservation and education destinations nationally and in the Phoenix Metro Area. In reality, DDC will set higher targets for non-operational revenues in order to expand programs, build endowment, reinvest in the facility and increase financial reserves to mitigate any variances from operational revenue plans. A directed set of fundraising and giving programs will help to accomplish this goal.

The operating profile of the facility is similar to many of the comparable institutions, whose operating strategies have been used in preparing the operating plan. Many projects of this type experience early year surges in attendance. This pattern has been included in this plan, and the operating plan is based on stable year performance. Diversified and creative sources of revenue and sound fiscal management will assist DDC to sustain its operations and provide a valuable resource for conservation, education and quality of life in Scottsdale and surrounding areas.

APPENDIX A
PRELIMINARY PROGRAM OF DDC SPACES

Table A-1
Preliminary Program of DDC Spaces

	Space Type	Net SF	UNDER ROOF Gross Cond SF	UNDER ROOF Gross Non-Cond SF	UNDER CANOPY Gross Non-Cond SF	UNCOVERED Non-Cond SF
PAVILION A			**6,045**			
Admissions	Support	483				
Preserve History [1/]	Exhibit				500	
Desert Keepers	Support	5,109				
PAVILION B			**2,131**			
Pod	Exhibit	1,910				
Sense Corridor	Exhibit				1,890	
PAVILION C			**5,862**			
Preserve Café	Support	2,043				
Café Kitchen	Support	640				
Preserve Shop	Support	1,094				
Retail Storage	Support	336				
Commons Restrooms	Support	1,224				
PAVILION D			**12,947**			
Sonoran Seasons	Support	5,429				
Restrooms	Support	734				
Storage / Mech	Support	1,013				
Catering	Support	1,357				
Science Encounter [2/]	Exhibit	2,363				
Sonoran Prefunction	Support	1,610				
PAVILION E			**3,999**			
Bajada	Exhibit	3,746				
PAVILION F						
Mountains & Valleys	Exhibit			1,001		2,133
PAVILION G						
Sonoran Steps	Support				4,804	
PAVILION H			**4,252**			
Deep Time	Exhibit	2,938				
Anthropocene	Exhibit					1,001
Deep Time Restrooms	Support	680				
PAVILION I						
Wash	Exhibit			3,183		1,977
PAVILION J						
Saguaro Sundial	Exhibit					1,907
PAVILION K			**3,305**			
City	Exhibit	3,221				
Edge	Exhibit			704	559	
PAVILION L			**9,045**			
Global Drylands Institute 1	Research	4,233				
Global Drylands Institute 2	Research	4,479				
Breezeway	Research			1,474		
Summary						
Total On-Site Net SF:		44,642				
On-Site Exhibit Gross SF			16,050			
On-Site Support Gross SF			22,491			
On-Site Gross Research SF			9,045			
Total On-Site Under Roof Gross Cond SF			**47,586**			
On-Site Programmed Under Roof Non-Cond SF				6,362		
Public Circulation Space and Non-Programmed Areas SF				30,987		
Total On-Site Under Roof Non-Conditioned SF [3/]				**37,349**		
On-Site Programmed Under Canopy Non-Cond SF					7,753	
On-Site Misc. Canopy SF					26,305	
Total On-Site Canopy SF [3/]					**34,058**	
Total On-Site Uncovered Non-Conditioned Programmed SF						**7,018**
Total On-Site Exhibit Space, Cond & Non-Cond SF		30,905				
Total Programmed On-Site Space						**126,011**
Off-Site Facility SF [4/]						**5,400**

1/ Estimated square feet.

2/ This is exhibit space that may be programmed by DDC or a programming partner organization.

3/ Public Canopy and Under Roof Non-Conditioned areas include pedestrian circulation; and, some of the "pre-function space in front of Desert Great Space; also includes experiences offered at Sonoran Steps, Teaching Space, Encore Wrap Up Area, Demo Area, First Impression View Terrace and other planned education and other experience areas.

4/ The off-site Administrative support building will also include amenities and information for visitors who are parking there and using a shuttle to access the DDC.

Source: Swaback Partners

APPENDIX B

DERIVATION OF ESTIMATED SCOTTSDALE ANNUAL TOURISM VOLUME

Table B-1
Estimates of Number of Overnight Tourists to Scottsdale Market Area Hotels and Resorts

	Number of Hotel and Resort Rooms 1/	Occupancy 1/	Occupied Rooms 2/	Average Number Nights Per stay 3/	Average Party Size 3/	Assumed Average Room Occupants 4/	Estimated Number of Hotel / Resort Visitors 5/
Scottsdale Rooms	8,997	67%	2,200,000	3.9	2.4	1.9	1,072,000
Adjacent areas	7,304	67%	1,786,000	3.9	2.4	1.9	870,000
Total	**16,301**		**3,986,000**				**1,942,000**

1/ The Scottsdale/Paradise Valley Tourism Study — Lodging Statistics Aug, 2015. Scottsdale Hotel Market includes several immediately adjacent areas including Paradise Valley, adjacent portions of Phoenix and Tempe, and parts of the towns of Carefree, Cave Creek, Fountain Hills, and the Salt River Pima Maricopa Indian Community (SRPMIC)

2/ Estimate based on: Number of Rooms * Occupancy Percent * Annual Number of Days. Rounded to nearest 1,000.

3/ Source: Longwoods International Scottsdale 2015 Visitor Report

4/ Source: ConsultEcon Estimate

5/ Estimate based on: Occupied Rooms / avg. length of stay* average room occupants. Rounded to nearest 1,000.

Source: ConsultEcon and citations.

Table B-2
Estimates of Number of Tourists in Targeted Market Segments

Market Segment	Estimated Current Volume of Travelers by Location / Type	Source / Notes
Travelers Staying Overnight in Scottsdale		
Hotel Visitors - Domestic and International [1/]	1,940,000	See Appendix Table B-1
Other Lodgings [1/]	390,000	Source: ConsultEcon estimate of Other paid lodging estimated at 20% of hotel and resort lodging. Estimate based on data from page 25 of Phoenix & Central Region 2015 Year-End Data Review; where other types of lodging are estimated as a percent to total overnight stays. Other lodging types include: Time Share, Second home, Bed & Breakfast, Rented Home/ Condo / Apt, RV etc.
Visiting Friends and Relatives (VFRS) [2/]	348,000	Source: ConsultEcon estimated of ratio of 1.5 visitors per person given 2016 Scottsdale population.
Staying in Seasonal homes [2/]	159,000	Source: U.S. Census Bureau, 2011-2015 American Community Survey 5-year estimate data indicates 15,900 second homes in Scottsdale; and ConsultEcon, Inc. assumes 10 persons annually use the second home including owners and their guests.
Total Estimated Overnight Visitors Staying in Scottsdale	**2,837,000**	
Day-Trippers to Scottsdale		
Domestic Day Trip Visitors to Scottsdale [1/]	4,130,000	Source: As defined by the City of Scottsdale, Day Trip Visitors are domestic overnight tourists staying in accommodations outside of the Scottsdale / Paradise Valley and City of Scottsdale such as hotels, second homes, RV's, Timeshare, Visiting Friends and Relatives (VFR); data from Scottsdale Longwoods International 2015 Visitor Report which includes Domestic visitors.
Estimated International Overnight Visitors taking Daytrips to Scottsdale [1/]	280,000	International overnight visitors to Phoenix Metro Area includes visitors from Mexico, Canada and a portion of the Overseas visitors to Arizona. Source: AZ Office of Tourism / *Tourism Economics 2014 International Visitor Volumes for Arizona: there were 5.7 million international visitors annually for both 2014 and 2015. 33 Percent of International travelers to AZ are assumed in this analysis to include Metro Phoenix in their overall travel itinerary. Of these travelers, Scottsdale visitors are estimated in this analysis to account for 25% of such International visitors as it has approximately that percentage of all hotel rooms. Thus these are not included in the day-trip analysis so as not to double-count. The resulting estimate of International visitors staying in accomodations outside of Scottsdale then in this analysis is translated to to an estimate of the percentage of such travelers who make a day-trip to Scottsdale. This estimate is based on the ratio of Scottsdale Day Trippers (4.13 Million) compared to the estimate of number of Central Arizona domestic overnight visitors (estimated at 22.1 million in 2015) less those staying in Scottsdale - estimated at 2.813 million). The result is an estimate of 20 percent of International travelers who stay overnight elsewhere in the Metro Area make a daytrip to Scottsdale.*
Estimated Scottsdale Day Trippers	4,410,000	
Total Targeted Travelers	**7,247,000**	Includes Domestic and International travelers staying overnight in Scottsdale; Day Trip travelers including domestic overnight travelers to Phoenix Metro Area whose lodgings are elsewhere in the Phoenix Metro Area than Scottsdale and Arizona residents who make day trips of over 50 miles one-way to Scottsdale; and, estimated number of International Travelers whose stay overnight elsewhere in the Phoenix Metro Area than Scottsdale. Note, this is not an estimate of all Phoenix Area travelers, but a summary of targeted travel market segments for DDC.

1/ Amounts rounded to nearest 10,000
2/ Amounts rounded to nearest 1,000
Source: ConsultEcon and citations.

APPENDIX C

DETAILED CASE STUDIES

Table C-1
Arizona-Sonora Desert Museum

Facility Name and Location	Arizona-Sonora Desert Museum, Tucson, Arizona
Date Opened to Public	1952
Governance and Operations	Private, nonprofit organization. Tax-exempt: 501(c)(3)
Type of Museum	Zoo, natural history museum and botanical garden
Mission	The mission of the Arizona-Sonora Desert Museum is to inspire people to live in harmony with the natural world by fostering love, appreciation, and understanding of the Sonoran Desert.
Site	Located in suburban Tucson, off a main thoroughfare.
Facility	The Arizona-Sonora Desert Museum is a zoo, natural history museum and botanical garden. Exhibits recreate the natural landscape of the Sonoran Desert region. Within the Museum, grounds there are more than 300 animal species and 1,200 kinds of plants. There are almost 2 miles of paths traversing 21 acres of desert. The museum is set in 100 acres of Sonoran Desert. It has both indoor and outdoor spaces and exhibits.
Facility Size	Interior public space: 70,000 SF Interior exhibit space: 18,000 SF
Market Size	1,016,206 (Tucson MSA, U.S. Census Bureau 2016 Population Estimate)
Annual Attendance	The Museum hosts about 400,000 visitors annually and reaches approximately 35,000 school children each year though field trips and outreach programs. In FY 2015 (From October 2014 through September 2015) the museum had attendance of 356,000.
Attendance Trends	Attendance has been fairly steady at around 400,000 for the past few years. The peak seasons are winter and spring, as summer days are typically very hot.
Attendance Profile	The museum strives to appeal to people of all ages from young children to senior citizens. Families and mature adults are the prime audience. In the past, adults were the primary audience, but the proportion of families and children is steadily increasing. An estimated 75% of attendance is from out-of-state visitors and 25% from in-state visitors.
Hours of Operation	Open Daily October – February: 8:30 am – 5:00 pm March – September: 7:30 am – 5:00 pm June – August; Sunday-Friday: 7:30 am – 5:00 pm; Saturday: 7:30 am – 10:00 pm The Summer Saturdays evening program allows visitors to access exhibits during the cooler hours of the summer. Often there is music and additional programming to create a more festive summer environment.

Table C-1 (continued)
Arizona-Sonora Desert Museum

Admission	♦ Adults: $20.50 ♦ Children 3-12: $8.00 ♦ Arizona/Sonora Resident: $15.50 Members: Free
Membership Price/Number	Total Number of Memberships: 22,358 (representing 56,952 individuals) Prices: ♦ Coati Club: $30 for members, $50 for non-members. For children ages 6-12. Discounts for siblings. ♦ Student: $35 ♦ Individual: $55 ♦ Dual: $80 ♦ Family: $105 ♦ Turquoise: $175 ♦ Copper: $300 ♦ Silver: $600 ♦ Gold: $1,200
Interpretive Focus and Visitor Experience	The Arizona-Sonora Desert Museum displays exhibits of live animals in natural settings, while providing educational programs. At the same time, the Museum is an institution committed to researching and protecting the land, plants, and the animals of the Sonoran Desert region. About 85% of the Museum's attractions are outside. Most visitors spend between 2 and 3 hours touring the Desert Museum. As the Museum continues to expand, it takes longer to see all exhibits, and thus creates impetus for repeat visitation.
Permanent Exhibits	Most of their exhibits are living exhibits, which simulate natural habitats and their interrelationships of plants, animals and geology. The museum focuses on the plants, animals, minerals, and fossils that are native to the Sonoran Desert region, with a few exceptions.
Education	Education is a museum-wide effort and coordinated through the education department. Educational programs include: ♦ Art Institute, which primarily serves adults taking art classes. ♦ Center for Sonoran Desert Studies: Public programs serve pre-k through adult, and include summer and winter camps, teen internships, adult trips, classes and tours, school field trips, and community outreach. Scientific research, as well as education, is part of the Center, and educational programming is based on scientific research. ♦ Various live-animal, exhibit-based interpretive programs. The museum has 230 live animal exhibits.

Table C-1 (continued)
Arizona-Sonora Desert Museum

Gift Shop	Two shops, Mountain House Gift Shop and Ironwood Gift Shop, offer a wide variety of merchandise from books (some from ASDM Press) and souvenirs to regional crafts, jewelry, and foods, including ASDM logo items and local Native American arts and crafts. Retail is contracted to a private concessionaire.
Food Service	Ironwood Terraces, a self-serve grill, offers a complete menu including children's items and is open every day, including Summer Nights until 9:00 PM. Special menus are available for tour groups, school groups, and special events. The Ocotillo Café offers formal dining, and is open seasonally for lunch in winter and for dinner on Summer Saturday Evenings. Phoebes Coffee Bar and the Cottonwood snack shop offer hot and cold drinks, pastries, sandwiches, ice cream and other snacks. Picnics: There is a small picnic area near the Museum entrance. Food service is contracted to a private concessionaire.
Facility Rentals	Private groups, banquets, event planning. Growing endeavor. Renters use the Museum's concessionaire, and Museum receives 24% of revenue. The museum has between 20 and 50 facility rental groups per year. The 2014 facility rental revenue was $57,285, which increased to $60,627 in 2015.

Sources of Revenue FY 2014 / FY 2015	**Revenue:**	**FY 2014**	**FY 2015**
	Admissions	$3,031,072	$3,279,858
	Concessions	397,938	422,311
	Food Service	222,316	229,232
	Facility Rental	57,285	60,627
	Membership	1,586,226	1,624,593
	Contributions	1,066,340	787,223
	Grant Revenue	143,826	43,696
	Special Events, net	202,280	125,588
	Education	147,413	237,595
	Publications	35,843	30,348
	Net Investment Gain	12,761	($57,373)
	Other	103,076	109,944
	Support from Designated Funds	855,000	561,980
	Net Assets Released from Donor Restrictions (Included In Contributions)	881,134	924,407
	Total Expenses	**$8,742,510**	**$8,380,029**

Table C-1 (continued)
Arizona-Sonora Desert Museum

Operating Budget	**Expenses:**	**FY 2014**	**FY 2015**
FY 2014 / FY 2015	Facilities	$1,930,105	$2,078,526
	Visitor Services	250,064	251,396
	Summer Saturdays	13,260	18,639
	Animal Collections	208,355	201,385
	Raptor Free Flight	190,580	211,583
	Botany	474,433	531,636
	Invertebrate Zoology	422,059	436,676
	Mammalogy/Ornithology	640,516	649,642
	Publications	38,110	33,503
	Conservation/Education	889,628	866,727
	Exhibits	225,931	214,390
	General Collections	136,670	146,992
	Art Institute	481,627	536,825
	Administration	535,150	448,290
	Finance	473,426	447,022
	Marketing	400,740	339,682
	Development/Membership	491,548	536,842
	Total Expenses	**$7,802,202**	**$7,949,756**
Number of Employees	Total staff: 136 (120 full-time, 8 part-time, 24 temporary); Volunteers: 474 In 1952, began with 4 employees.		
Marketing	Annual marketing budget 2015: $339,682 (a decrease from $400,740 in 2014) The ASDM marketing budget has been very limited in recent years. The Museum recently hired a new marketing director, who is in the midst of revising the marketing strategy. The focus of the strategy will be on strategic media partnerships. The museum also relies heavily on free marketing, public service announcements, and word-of-mouth advertising.		
Partnerships and Accreditation	Accredited by the Association of Zoos and Aquariums and member of the American Association of Museums.		
Keys to Visitation and Operating Strategy	Quality exhibits appealing to a wide audience range. Interpretive programming of a distinct habitat. Highly visible marketing strategies working within the region, state, and beyond. Educational focus and scientific research. Staying true to mission of interpreting natural history using a holistic approach. Sense of “specialness” of place and privilege to be there.		

Source: Interview with Betsy Warner, Marketing Director, June 2016. Facility profiled, www.desertmuseum.org, 2015 Annual Report, AZA Member Directory (online accessed December 2015), and ConsultEcon, Inc.

Figure C-1
Arizona-Sonora Desert Museum Entrance

Source: www.purpleroofs.com

Figure C-2
Crowning Saguaro Outdoor Exhibit at the Arizona-Sonora Desert Museum

Source: www.purpleroofs.com

Figure C-3
Gift Shop at the Arizona-Sonora Desert Museum

Source: www.purpleroofs.com

Table C-2
Desert Botanical Garden

Facility Name and Location	Desert Botanical Garden, Phoenix, Arizona
Date Opened to Public	Founded in 1937, site established in 1939.
Governance and Operations	Incorporated nonprofit educational institution. Tax-exempt: 501(c)(3)
Type of Museum	Botanical garden
Mission	The Garden is committed to excellence in education, research, exhibition, and conservation of desert plants of the world with emphasis on the Southwestern United States. They will ensure that the Garden is always a compelling attraction that brings to life the many wonders of the desert.
Site	Located in Papago Park, the Desert Botanical Garden sits on 55 cultivated acres within a 140 acre area and has more than 50,000 plants on display. Papago Park is a 1,200-acre park that includes the Phoenix Zoo, recreational facilities, hiking trails, and other amenities.
Facility	The Desert Botanical Garden (DBG) hosts one of the world's finest collections of desert plants. One of only 44 botanical gardens accredited by the American Association of Museums, the museum showcases 55 acres of beautiful outdoor exhibits. The Garden is home to 139 rare, threatened and endangered plant species from around the world, and offers unique experiences to more than 300,000 visitors each year. In 2002, the Garden completed a $17 million expansion that includes a new entry and admissions area, a gift shop and sales greenhouse, and Dorrance Hall, a 400-seat reception hall and gallery. The Pulliam Research and Horticulture Center that houses the departments of horticulture, research and visitor services was also developed, as was the Desert Studies Center, which accommodates the education services department, volunteer headquarters and outdoor classrooms. In 2008, as part of its $17.8 million campaign for renovation and endowment, the Garden renovated the old Cactus and Succulent houses, creating the Harrington Cactus and Succulent Galleries and the Ottosen Entry Garden. Additional projects include self-guided audio tour; in-school curriculum for Arizona teachers; scholarships for the Garden's school field trip program in new research scientists and a new way-finding system. In 2009, the Berlin Agave Yucca Forest opened and will be followed by the refurbished Center for Desert Living Trail in 2010. As of spring 2017, the Desert Botanical Garden has completed its $18 million capital campaign. With these funds, the garden has opened three new exhibits, including a Desert Terrace, Desert Portal, and a Desert Heritage garden, reopened the butterfly pavilion, and opened a back-of-house horticultural center that is open for private tours. All of these expansions have been created on the existing 55-acre footprint by developing more textured and curated landscapes along existing walking trails.
Facility Size	Exterior acreage: 140 acres Exterior exhibit acreage: 55 acres Their public interior space consists of administrative areas, meeting spaces, rental spaces, and classrooms, 2 for children and 2 for adults.
Market Size	4,661,537 (Phoenix MSA, U.S. Census Bureau 2016 Population Estimate)

Table C-2 (continued)
Desert Botanical Garden

Annual Attendance	**Total Attendance 2016: 420,000** ♦ Paid attendance: 170,000 ♦ Holiday Evening Program: 40,000 ♦ School Children: 20,000 ♦ Members: 190,000 Total Attendance 2015: 380,173 Total Attendance 2014: 633,041 (accurate – due to *Chihuly in the Garden* exhibition) Stabilized Attendance: 300,000 (about 160,000 paid general admission)
Attendance Trends	Attendance trends are somewhat weather dependent as the Garden is an outdoor experience. Overall, attendance has been meeting or exceeding attendance expectations mostly due to blockbuster exhibition offerings. Other reasons for increased attendance include increase in tourism overall (attendance to Grand Canyon is increasing), and improvements in the economy. Decrease in school group attendance has been due to decline in state funding in the post-recession years for the State of Arizona. The state is currently approximately $1.0 billion in debt to school system; schools are reluctant to send kids on field trips because there is no obvious test score impact. School group visitation is funded by corporate sponsorships and scholarships. Seasonality: ♦ Peak season: Thanksgiving to Mother's Day ♦ Shoulder Seasons: October to Thanksgiving, Mother's Day through June. ♦ Off-Season: June through October (due to high temperatures)
Attendance Profile	2015 visitor intercept study estimated that 50 percent of visitors to the Desert Botanical Garden were local to Arizona, 12 percent were from other Southwest states, and the remaining 38 percent were from other U.S. states or international origins.
Admission	Adults: $24.95 Children (3-12): $12.95 Children under 3 are admitted free Members: Free In March 2017 eliminated senior and student admission fees, as well as raised ticket prices. This aligned with the reopening of the butterfly pavilion that was previously an add-on experience.

Table C-2 (continued)
Desert Botanical Garden

Hours of Operation	The Garden is open seven days a week, year round. Garden Seasonal Hours: ♦ October – May: 8 am-8 pm ♦ June - September: 7 am-8 pm Hours may be extended for special events and exhibitions, such as the spring 2016 Bruce Munro show, for which the Botanical Garden is open until 11:00 PM every night. Member hours are one hour before opening on Wednesdays and Sundays.
Membership Price/Number	♦ Senita Club: One Year: $109 Two Years: $208 ♦ Cholla Club: One Year: $139 Two Years: $268 ♦ Aloe Vera Club: One Year: $79 Two Years: $148 ♦ Agave Century Club Membership: One Year: $200 Two Years: $390 ♦ Boojum Tree Club Membership: One Year: $350 Two Years: $690 ♦ Ocotillo Club Membership: One Year: $500 Two Years: $990 ♦ Golden Barrel Club Membership: One Year: $700 Two Years: $1,390 ♦ Saguaro Circle Membership: One Year: $1,500 Two Years: $3,000 Number of Member Households: 35,000 (up from 33,000 in 2015, but down from 40,544 in 2014)
Interpretive Focus and Visitor Experience	The living collection of over 20,000 desert plants, with particular emphasis on those inhabiting the Sonoran Desert, continues to serve the public and scientific community. For the public, the collection provides pleasure for the senses and spirit, and acquaints them with the great diversity of plants in desert ecosystems, dispelling the myth that deserts are "empty wastelands." Many of these plants can be used in home or business landscaping. For scientists, the Garden's collection provides important data (locality, original collector) that accompanies the majority of plants. The Garden's extensive seed collection includes rare plants, providing a backup to the species and opportunities for further study.
Permanent Exhibits	55 acres of outdoor, living exhibits featuring all types of cactus and succulents. Exhibits provide the focus for many special events, festivals, and seasonal activities including annual events such as *Las Noches de las Luminarias* and *Mariposa Monarca Monarch Butterfly Exhibit*.
Special Exhibits	*Bruce Munro: Sonoran Light* – November 22, 2015–May 8, 2016 Hours: Nightly, 6:00 PM to 11:00 PM Members: Free / Non-Members: Adults $25; Children (3 -12) $ 12.50; Children under 3 admitted free; Day/Night passes include full DBG admission: Adults: $30; Children (3-12): $15.00. *Ballet Arizona: Topia* – May 23, 2017 – June 10, 2017, Tuesday through Saturdays, Performance at 8:00 PM General public: $36.00 / Table Seating: $60.00 / Premium Table Seating: $80.00

Table C-2 (continued)
Desert Botanical Garden

Education	The DBG's educational programming for children, adults and educators promotes enjoyment, understanding, and stewardship of the Sonoran Desert. Place-based opportunities for preschoolers, in-depth camps, and service-learning teen programs are offered as resources to stimulate a connection to nature and discovery. Their curriculum for students blends hands-on, inquiry-based learning and is specifically designed to complement and correlate educational objectives and Arizona Academic Standards. Learning options include: ♦ Adult Classes and Workshops ♦ Desert Landscape School ♦ Kids programs and camps ♦ Gardening guides and workshops ♦ Scholarships for students of horticulture, conservation, botany, and landscape design for arid or desert landscapes.
Gift Shop	The Garden Shop is the Botanical Garden's gift shop, featuring local products, gardening tools and accessories, and exhibition publications. In 2002, the gift shop was originally opened as 4,000 SF facility. In 2013, 2/3 of the gift shop was converted into a restaurant (Gertrude's), so the current gift shop facility is about 1,300 SF. The gift shop is operated by Event Network, a third party vendor. Details of this operating agreement were not available. Net retail sales at the gift shop annually are estimated at around $369,000. In addition, the organization hosts an annual plant sale that generates $300,000 in net revenue ($600,000 gross).
Food Service	The Botanical Garden offers several dining options within the grounds. No outside food or beverage for picnicking is permitted. Food service is provided by a third party vendor. ♦ Gertrude's (2,600 SF, Full Service Restaurant): Monday through Friday, 10:30 AM to 9:00 PM; Saturday and Sunday, 8:00 AM to 9:00 PM. ♦ The Patio Café (Limited food service window on the Ullman Terrace, seating for 400)): Daily, 8:00 AM to 4:00 PM (from 7:00 AM for members on Wednesday and Sunday). Closed during the summer. ♦ The Light Lounge (Snack service near the Berlin Agave Yucca Forest): Hours vary. Total food service revenue estimated at $215,000. Beverage revenue estimated at $400,000.
Facility Rentals	Business and social events can be held at a number of venues within the Garden. There are many options available, with rental prices ranging from $400 to $3,500 depending on venue, number of guests, and length of event. About 30 percent of events are weddings. During peak season, the Botanical Garden can host as many as 5 weddings on a given night in 5 different venues, with a capacity for 30, 75, 100, 200, and 400 people. In all, the Botanical Garden can host events for up to over 10,000, though the exact capacity is not available, as it depends on the nature of the event. Total facility rental revenue in the most recent year was $500,000.

Table C-2 (continued)
Desert Botanical Garden

Operating Budget 2013-2014	**Expenses**	**FY 2014**	**FY 2015**
	Program Expenses:	$8,162,198	$6,745,413
	Fundraising and Membership:	2,041,831	1,757,265
	General and Administrative:	1,772,908	1,577,867
	Retail, Marketing and Visitor Services:	4,655,998	2,862,141
	Total Expenses:	**$6,184,254**	**$12,942,686**
Sources of Revenue 2013-2014	**Revenue**	**FY 2014***	**FY 2015**
	Gross Profit on Retail and Beverage Sales:	$2,305,643	$1,337,180
	Admissions:	8,145,608	3,305,122
	Contributions, Grants and Special Events:	7,370,390	5,038,928
	Investment Income (net)	655,089	732,688
	Net Unrealized Gain on Investments:	195,745	(1,413,971)
	Memberships	3,128,866	3,318,677
	Other Revenue	1,005,848	1,025,322
	Total Revenue:	**$22,817,189**	**$13,343,946**
	*The 2014 fiscal year featured the Chihuly in the Garden Exhibition.		
Number of Employees	Baseline FTE: 93 Peak Season FTE: 130 Volunteers: 800 (total 69,068 hours contributed in FY 2015)		
Marketing	Annual marketing budget: $500,000 Increased marketing budget in "blockbuster" years, for special exhibitions. 2016 - $1.1 million. Most advertising oriented in the local market. Though a large proportion of visitors are tourists, advertising to the tourist market is conducted through CVB publications in tourist centers and hotels that tend to reach tourists when they have already reached the Phoenix area. No marketing conducted outside of Arizona. Main advertising media include print, web, and social media. Radio and television advertising is implemented for blockbuster exhibitions, including the Chihuly and Munro exhibits, but less frequently for the Desert Botanical Garden as a whole. Renewed marketing in 2016 focused on the re-opening of the Butterfly Pavilion. Other marketing strategy has included an emphasis on diversity of audiences, based on a renewed commitment to diversity from staff, board and volunteers. This has been incorporated into marketing, as well as exhibit planning.		

Table C-2 (continued)
Desert Botanical Garden

Partnerships and Accreditation	A charter member of the Museum Association of Arizona and National Center for Plant Conservation, the Garden is accredited with the American Association of Museums and American Association of Botanical Gardens and Arboreta. It continues to build on its 70-year legacy of environmental stewardship, and has become nationally and internationally known for its plant collections, research and educational programs. In 2005, it was named one of Arizona's Treasures by then Governor Janet Napolitano. Collaborative exhibits with the Heard Museum and other institutions.
Keys to Visitation and Operating Strategy	♦ Blockbuster exhibitions with Chihuly and Munro highlight unique botanical garden experiences, drawing in large volumes of visitors over limited engagements. ♦ Provides an excellent visitor experience. ♦ Open daily, 12 hours per day or more. ♦ Adheres to their mission of desert plants, and research and education. ♦ Hosts special events, festivals, programs, and exhibits consistently during the year, including springtime wildflowers, ballet, concerts, day of the dead, etc. ♦ Employs highly visible marketing strategies within the region and state. ♦ New plans forthcoming in 5-year strategic plan to cover 2018-2022.

Source: Phone Interview with Ken Schutz, Executive Director, May 16, 2017. Facility profiled, www.dbg.org, AAM Official Museum Directory 2017, 2014 and 2015 IRS Form 990, and ConsultEcon, Inc.

Figure C-4
Chihuly Exhibit at the Dessert Botanical Garden

Source: www.dbg.org

Figure C-5
Chihuly Exhibit at the Desert Botanical Garden

Source: www.dbg.org

Figure C-6
Exhibit at the Desert Botanical Garden

Source: www.dbg.org

Figure C-7
Desert Botanical Garden Trail Map

Source: Desert Botanical Garden; 2017

Table C-3
High Desert Museum

Facility Name and Location	High Desert Museum, Bend, Oregon
Date Opened to Public	The museum opened in its current location in 1982. Since 1992, a building process has doubled the museum's size, and added new exhibits, a store and café, administrative space, a library, and other infrastructure. The museum was designed to have a similar program and interpretive approach to the Arizona Sonora Desert Museum in Tucson, Arizona.
Governance and Operations	Nonprofit organization. Tax-exempt: 501(c)(3)
Type of Museum	Natural and Cultural History Museum
Mission	Through exhibits, wildlife, and living history, the High Desert Museum creates learning experiences to help audiences discover their connection to the past, their role in the present, and their responsibility to the future.
Site	Located 3.5 miles south of Bend, Oregon.
Facility	Set in 135 acres, the High Desert Museum's 53,000 SF main building anchors a quarter-mile trail that winds along a stream and through aspens and ponderosa pines. The facility includes indoor/outdoor spaces and exhibits, and has a gift/book shop, and full-service café. The Museum includes 53,000 square feet of exhibits and amenities in the main building, while paved outdoor trails wind through acres of natural exhibits and animal habitats. The museum has a substantial permanent collections inventory, but also is constantly updating exhibits or creating new exhibits. There is a mix of static exhibits and interactive exhibits – though exhibits are not 'interactive' in the high tech sense.
Facility Size	Outdoor space: 135 acres Total interior space: 110,000 SF ♦ Main building: 53,000 SF ♦ Exhibit area: 32,000 SF
Market Size	181,307 (Bend MSA, U.S. Census Bureau 2016 Population Estimate)
Annual Attendance	2016 Total Attendance: 169,926 (from AAM Official Museum Directory, 2017) Generally estimate attendance between 165,000 and 170,000.
Attendance Trends	Visitation has been growing slowly, but steadily over the past few years. The success of the Museum and its value to the region's residents and tourists is a result of strategic steps taken by the Museum. Strategic steps have involved targeting the visitor segments and tailoring programs for those times of year. The Museum is proud of its unique position as a successful natural and cultural history museum 150 miles from a metropolitan area. Most museums of this size and scope are located in metropolitan areas. Seasonality: ♦ Summer is peak visitation season. ♦ Fall and winter are popular with local residents, members and retirees.

Table C-3 (continued)
High Desert Museum

Attendance Profile	The museum appeals to people of all ages from families to senior citizens. ♦ Bend is a tourist destination. In 2014, there were an estimated 2.8 million person trips to Central Oregon, according to a 2015 Dean Runyan travel impacts report. ♦ In addition to tourists, the Museum has a strong local following and repeat visitation. Many people in Bend are second homeowners with either their first or second home in Bend. Origin of Visitors: ♦ Central Oregon: 25% ♦ Rest of Oregon: 35% ♦ Rest of the U.S.: 35% ♦ International: 5% Diversity: ♦ New Head Start Family program to be initiated in May 2016, welcoming the 451 families enrolled in Head Start pre-kindergarten programs in Deschutes County. Over1000 people were planning on attending the kick-off event on May 11. ♦ 2,500 disadvantaged families admitted free through Discovery Pass program. ♦ 2,000 residents admitted free in a partnership program with Deschutes Public Library. ♦ 4,000 visitors during two free days during the year (in January and February)
Admission	Summer May 1 - October 31 ♦ Adult: $15 ♦ Senior (65 plus) and College Student : $12 ♦ Youth (ages 5-12) : $ 9 ♦ Child (4 and under) : Free Winter: November 1 - April 30 ♦ Adult: $12 ♦ Senior (65 plus) and College Student: $ 10 ♦ Youth (ages 5-12) : $ 7 ♦ Child (4 and under) : Free
Hours of Operation	Summer: 9:00 am to 5:00 pm. daily, May 1 through October 31 Winter: 10:00 am to 4:00 pm daily, November 1 through April 30

Table C-3 (continued)
High Desert Museum

Membership Price/Number	Annual Membership: ♦ Individual: $60 ♦ Individual Plus: $72 ♦ Family / Grandparent: $90 ♦ Family Plus: $144 ♦ Silver Spurs: $300 ♦ Golden Spurs: $500 Desert Sage Society Membership Levels: ♦ Fellow & Corporate: $1,000 ♦ Curator's Circle: $2,500 ♦ Museum Associate: $5,000 ♦ President's Council: $10,000 ♦ Founder's Center: $25,000 Number of Memberships: ♦ Estimated at 3,200 memberships. ♦ Members are widespread throughout Oregon, as Central Oregon is a destination for seasonal visitors from around the State.
Interpretive Focus and Visitor Experience	The Museum's interpretive focus is the High Desert. Visitors enjoy indoor/outdoor walk-through exhibits, including the Native American wing with artifacts and aquaria, large dioramas of the Old West, a Desertarium with live animals and natural history exhibits, riparian area, steam-powered sawmill, log cabin, and 200 live animals. The Museum offers special living history events and programs. Programming is aimed to provide a sense of cultural history as well as natural history. Live animal interpretations and living history demonstrations are presented regularly. In 2002, the museum opened the 7,400-SF Donald M. Kerr Birds of Prey Center and its featured exhibit *Raptors of the Desert Sky* displays close-up views of live raptors in natural habitats. As of the spring of 2016, the museum is renovating its otter exhibit, and plans on expanding its beaver exhibit in the near future. In recent years the Museum has made an intentional shift to feature and create dialogue around contemporary controversial issues. For instance, the Sage Grouse was featured in an exhibit when it was at risk of being listed on the endangered species list. The average length of visitation to see the museum 3 hours.

Table C-3 (continued)
High Desert Museum

Permanent Exhibits	♦ Indoor exhibits, including: o Spirit of the West o Wild Cats o Whose Home? o By Hand through Memory o Desertarium o DeMoss Stagecoach ♦ Outdoor exhibits, including: o Miller Family Ranch o Autzen Otter Exhibit (under construction spring 2016) o Porcupines o Dig, Crawl, Climb! o Changing Forest Exhibit o Donald M. Kerr Birds of Prey Center o Lazinka Sawmill o Ranger Station o Nature Walk o Earth, Wind, and Fire Interpretive Trail
Education	Educational Programs at a Glance: ♦ Adventure Tours: 60-minute tours of museum exhibits and grounds. ♦ Discovery Classes: Programs at the museum or in school aligned with Oregon state education standards ♦ Festivals: Education stations set up around the museum with hands-on activities for small groups. ♦ Self-guided Field Trips: Explore museum as a class. Special group rate of $4.50 per student. ♦ Self-guided learning expedition: Museum provides materials for a focused exploration plan during visit to the museum. ♦ Traveling Trunks: Curriculum-based learning units designed for in-classroom hands-on lesson experiences. ♦ Teacher training: Programs offered year-round for educators to develop understanding of regional natural history.
Gift Shop	Silver Sage Trading Store: Art, books, jewelry, toys, cards, ornaments, home decor and apparel themed around the high desert. The store is operated by the Museum.

Table C-3 (continued)
High Desert Museum

Food Service	Rimrock Café: Coffee, lunch or snack. Indoor and outdoor patio seating. Hours: ♦ Winter: 11 am - 3 pm ♦ Spring: 11 am – 4 pm ♦ Summer: 10 am - 4 pm Admission is free to the Rimrock Café and Museum Store. Food service is currently operated by the Museum. In the past, food service was contracted to a concessionaire, but this did not work well, so the Museum took over the service. Picnic tables are in the front parking lot for picnics and school groups.
Facility Rentals	Schnitzer Entrance Hall ♦ 4,000 SF ♦ Capacity: 500, theater or banquet style Donald M. Kerr Birds of Prey Center ♦ 700 SF indoors and 1,500 SF outdoor pavilion ♦ Capacity: 50, banquet style; 150, cocktail reception Museum Meadow ♦ 7,200 SF ♦ Capacity: 500+ Rimrock Café Patio ♦ 800 SF ♦ Capacity: 60, banquet style; 75, cocktail reception M.J. Murdock Education Center ♦ 440–837 SF ♦ Capacity: 75, theater style; 60, banquet style
Operating Budget FY 2014 **(year ending June 30, 2014)**	<u>Expenses</u> Program Services: ♦ Exhibits: $1,597,727 ♦ Education: $697,413 ♦ Visitor Services: $774,939 ♦ Communications: $358,385 Support Services ♦ Management and General: $253,347 ♦ Fundraising: $478,053 <u>Total Expenses: $4,159,764</u>

Table C-3 (continued)
High Desert Museum

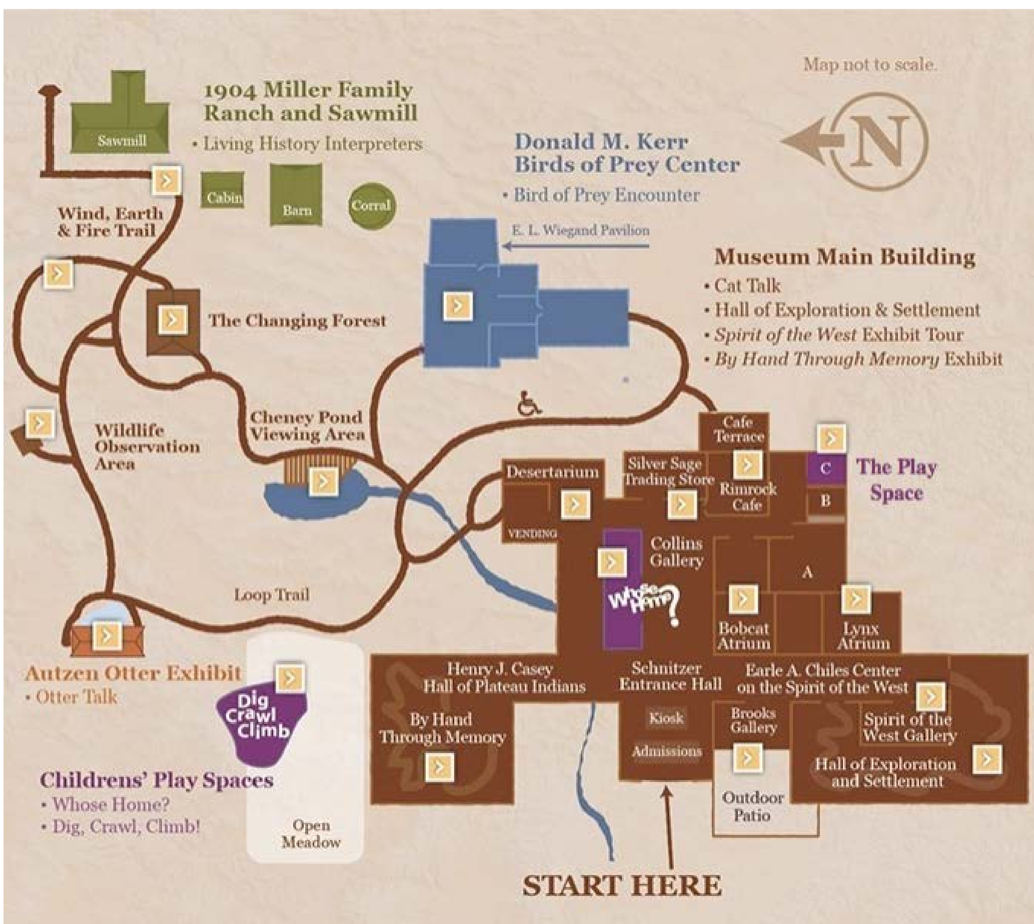
Sources of Revenue FY 2014 **(year ending June 30, 2014)**	<u>Revenue and Other Support</u> ♦ Membership: $345,914 ♦ Admissions: $1,013,277 ♦ Contributions: $1,277,013 ♦ Education: $144,056 ♦ Merchandise and other sales: $662,525 ♦ Grants: $228,073 ♦ Fundraising events: $144,072 ♦ Facilities rental: $34,502 ♦ Other revenue: $28,993 ♦ Investment Income: $406,040 <u>Total Revenue and Other Support: $4,284,465</u>
Number of Employees	Staff: Full-time 41, part-time 8 Volunteers: Part-time volunteers 237
Marketing	Marketing budget estimated at about $200,000, not including personnel costs. Most marketing is regional – focusing on Central Oregon through TV and public radio, as well as billboards. Leverages relationship with regional tourism organizations through tourism publications and magazines. Museum is located about 5 miles from Bend's main urban area. Earlier marketing campaign focused on its location being "closer than you think." New marketing director is encouraging the museum to have a less apologetic campaign.
Partnerships and Accreditation	Member of and accredited by the American Association of Museums. They work with local public schools, State Parks, Oregon Cultural Trust, and Oregon Community Foundation
Keys to Visitation and Operating Strategy	♦ Changing exhibits – key to success has been rotating each of 3 temporary exhibit galleries three times per year, resulting in 9 new exhibits per year. This has generated major value for family memberships and encouraged both local residents and more distant members to repeat visitation regularly. ♦ Excellent cultural exhibits ♦ Live animal exhibits ♦ Marketing and promotions ♦ Strong tourist visitation ♦ Exhibits loaned to other museums ♦ Facility rental program

Source: Interview with Dana Whitelaw, Executive Director, May 10, 2016. Facility profiled, www.highdesertmuseum.org, 2014 Annual Report, Guidestar, 2016 AAM Guide, ConsultEcon, Inc.

Figure C-8
Entrance to Raptors of the Desert Sky at the High Desert Museum

Source: www.highdesertmuseum.org

Figure C-9
High Desert Museum Map



Source: www.highdesertmuseum.org, 2016

Table C-4
Las Vegas Springs Preserve

Facility Name and Location	Las Vegas Springs Preserve
Date Opened to Public	Founded in 2007, and open to the public
Governance and Operations	Parent Institution: Springs Preserve Foundation Board, 501(c)(3), in partnership with Las Vegas Valley Water District. The Foundation was formed after opening as a fundraising entity. The Water District operates the Preserve through a Board of Trustees.
Type of Museum	Historical and Cultural Complex
Mission	The mission of the Las Vegas Springs Preserve is to create a visitor experience that builds culture and community, inspires environmental stewardship and celebrates the vibrant history of the Las Vegas Valley.
Site	The site is the original source of water for Native Americans living there, and later for travelers and settlers. It was listed on the National Register of Historic Places in 1978, and is called the "birthplace of Las Vegas." Located off a busy highway and 5 miles from the Las Vegas Strip, the neighborhood is residential.
Facility	The Springs Preserve is a 180-acre cultural institution designed to commemorate Las Vegas' history and to provide a vision for a sustainable future. The Preserve features museums, galleries, outdoor concerts and events, botanical gardens and an interpretive trail system that meanders through a wetland habitat. It also includes a library, 1,800-seat outdoor amphitheater, smaller garden amphitheater, indoor movie theater, outdoor children's playground, and meeting areas. Seven buildings have LEED (Leadership in Energy and Environmental Design) Platinum status.
Facility Size	**Total acreage: 180 acres** ♦ Gardens: 8 acres ♦ Trails: 1,8 miles (2.6 miles upon completion) ♦ Children's Play Area: 14,336 SF ♦ Outdoor Exhibit Space: 45,336 SF **Total building space at opening: 176,000 SF** **Total building space at completion: 254,000 SF** ♦ Desert Living Center: 76,975 SF ♦ ORIGEN Experience: 49,610 SF ♦ Nevada State Museum (currently under construction): 78,000 SF **Building space components:** ♦ Indoor Exhibit Space: 45,336 SF ♦ Administrative: 6,080 SF ♦ Rental Space: 7,359 SF ♦ Classroom Space: 10,680 SF ♦ 7 LEED Platinum Green Buildings
Market Size	2,114,801 (Las Vegas MSA, U.S. Census Bureau 2015 Population Estimate)

Table C-4 (continued)
Las Vegas Springs Preserve

Annual Attendance	2015-2016 Attendance ♦ 259,887 total attendance (accurate) ♦ 36,631 guests attended live education and animal shows ♦ 29,428 students from 1,086 classes at 301 schools attended field trips ♦ 66,253 people attended 13 family-friendly events ♦ 6,547 visitors participated in activities and workshops ♦ 650 campers participated in camp programs 2014-2015 Attendance: 258,238 2013-2014 Attendance: 257,243 2012-2013 Attendance: 251,828
Attendance Trends	Attendance has been increasing over the past few years. Seasonality: Visitation is seasonal, with the highest visitation occurring from October to December and March to May. Summer has the lowest attendance due to heat.
Attendance Profile	Las Vegas is one of the strongest tourist destinations in the U.S., as well as a growing high-population area. 11% of visitors are local and 89% are tourists. Some typical trait of visitors are that they are largely female and have been residents of Clark County for six or more years. Most are Caucasian, have achieved some degree of college education, are between the ages of 25 and 54, and have two children in their households.
Admission	General Admission tickets include entrance to all the attractions, including the Nevada State Museum, but do not include admission to special events. Members are admitted free of charge. Access to Gardens and Trails is free; however, patrons must obtain a ticket at the ticketing window. School groups pay general admission fee unless add-on experiences are booked. Nevada Residents: Ticket Type and Cost ♦ Adult: $9.95 ♦ Senior (65+): $8.95 ♦ Student (18+): $8.95 ♦ Child (5-17 years): $4.95 ♦ Child (under 5 years): No Charge Nonresidents: Ticket Type and Cost ♦ Adult: $18.95 ♦ Senior (65+): $17.05 ♦ Student (18+): $17.05 ♦ Child (5-17 years): $10.95 ♦ Child (under 5 years): No Charge

Table C-4 (continued)
Las Vegas Springs Preserve

Hours of Operation	The Springs Preserve is open daily from 10 am to 5 pm (previously opened from 10 am to 6 pm)
Membership Price/Number	Membership Prices: ♦ Individual: $25.00 ♦ Individual + Guest: $45.00 ♦ Family: $60.00 ♦ Family + Guest: $80.00 ♦ Donor - Bronze: $100 ♦ Donor - Silver: $250 ♦ Donor - Gold: $500 ♦ Donor - Platinum: $1,000 Total Number of Memberships: 8,596
Interpretive Focus and Visitor Experience	Desert Living Center: Comprised of five buildings featuring interactive exhibits, classroom and meeting space, a library, art gallery and more. The Desert Living Center (DLC) is the “green” focal point of the Springs Preserve. Certified Platinum LEED by the U.S. Green Building Council, these buildings embody the Preserve’s message of sustainability. ORIGEN Experience: Features theater, live animal habitats, and exhibit galleries. AS the interpretive focal point for history at the Springs Preserve, the Origen Museum features more than 75 permanent exhibits, an indoor theater, and traveling exhibit space. In 2012 a 5,000 square foot traveling exhibit gallery was added in place of the former New Frontier Gallery. Each year three interactive travelling exhibits rotate through the space. There is also a rotating art gallery called the Big Springs Gallery. Nevada State Museum: Housed in a 70,000 square foot building, the facility features a 13,000 square foot exhibit gallery. The focus of the museum is to advance the understanding of the history, pre-history, and natural history of Nevada, emphasizing Southern Nevada and its relationship with surrounding areas. While located at the Springs Preserve property, the museum operates independently, with separate staff and hours of operation. Gardens: The Botanical Garden is home to the largest collection of Mojave Desert cacti and succulents, comprising 110 acres of display gardens, natural gardens, and wildlife habitats. The gardens also provide examples of landscaping which utilize plants that are both attractive and water efficient. Trails: Guests can hike up to 3.6 miles of designated dirt trails, rent bicycles, and explore the paved areas of the property. There is also a 12-ton trackless train, which runs a 2.2 mile, 20-minute narrated ride around the property. Trails have been improved with additional overlook picnic sites, benches, tables, restrooms, shade structures, and interpretive signage. Desert Tortoise Habitat: Added in 2015, the federally-designated threatened species has a 15-acre refuge habitat in the northwest corner of the springs preserve property, where it enjoys

Table C-4 (continued)
Las Vegas Springs Preserve

Interpretive Focus and Visitor Experience (cont.)	Butterfly Habitat: Added in 2014, the outdoor butterfly habitat allows visitors to immerse themselves in the butterfly environment and see the plants that sustain them. The objective of this exhibit area is to encourage visitors to better understand the environment necessary for butterfly survival. The exhibit area is seasonally open in the spring and fall, depending on temperatures. DesertSol: Added in 2013, this exhibit area is a 754-square foot solar-powered home that was created by the University of Nevada, Las Vegas Solar Decathlon team as part of the U.S. Department of Energy Solar Decathlon 2013. It is a model for an ultra-efficient home, showcasing innovations in sustainable home design, including technology, energy, and material choices. Solar energy is the sole source of energy for this model home. Boomtown 1905: Opened in February 2017, this historic streetscape is a re-creation of the original railroad depot and significant buildings located on Freemont Street in early Las Vegas. The Streetscape will include a railroad depot, a bank, mercantile, bar, movie theater, and hotel. Adjacent to the streetscape buildings will be four restored historic cottages that were originally constructed in 1910 by the San Pedro Salt Lake Railroad for its employees. Interpretive signage and interactives will give visitors an idea of what it was like to live and work in early Las Vegas. Teaching Garden: A newly opened experience within the Botanical Garden that includes additional experiences for students, teachers, and the community for learning about gardening techniques in the Southwest. This area will also offer professional development opportunities.
Upcoming Exhibits	Waterworks Museum: Scheduled to open in Fall 2017, the Waterworks Museum will feature interactive exhibits that explore water resource use and management in Southern Nevada. Key themes detailed in the exhibit will include water treatment and testing, water distribution, drought and conservation, environmental initiatives, and major efforts completed and underway to protect community supplies. Playground: A new playground is planned to be built and opened in 2018.
Program Highlights	Programming is focused on enhancing the desert living experience through providing educational and cultural classes as well as significant holiday events and sustainable celebrations.
Education	Field Trips: The Springs Preserve provides free self-guided field trips to the Clark County Schools. Beginning in 2016, a Premium Field Trip Experience was added, which includes a staff tour guide to answer questions. The Premium Experience costs $75.00 per class. Camps: The Preserve offers a 12-week summer camp session, one- and two-day STEM camps for when Clark County schools are out of session, and one week-long Spring Break Camp. Family and Youth Classes: The Preserve offers a series of gardening classes to adults, always changing "pop-up" classes and activities on the weekends, and once-a-week Toddler Time (story time with a related craft exercise). Nature Exchange: The nature exchange is a space where 17,000 active traders (registered children) can exchange items found in nature. In 2013, the Exchanged moved from its own building to share a space with the Gift Shop.

Table C-4 (continued)
Las Vegas Springs Preserve

Education (cont.)	Fall Show in the Big Springs Theater: Every weekend during the fall, in-house staff from the Preserve's Education Department produces a live show related to history, science, or animals. Teaching Garden: This segment of the botanical garden offers additional teaching opportunities for visiting school groups as well as community groups.
Special Events and Festivals	The Springs Preserve hosts numerous annual signature events tied into holidays, seasons, and cultural celebrations. These productions include: the Black History Month Festival, Run away with Cirque du Soleil, Mardi Gras Vegas, Plant Sales, Dia Del Nino, 'Ohana Festival, Ice Cream Festival, Brews and Blues Festival, Grapes and Hops Festival, Asian Heritage Celebration, Haunted Harvest, and Dia De Muertos.
Gift Shop	Springs Preserve Gift Shop ♦ 1,985 SF; of which 823 SF is storage and office space. ♦ One-of-a kind products including educational books, games, desert-friendly plants, clothing and Preserve memorabilia. Inventory ranges in price from less than \$1.00 to \$800.00, though the majority of items sold are in the \$1.00 to \$100.00 range. Retail is operated by Guest Services, a division of the Preserve that operates other guest services such as admissions, security, special events programming, and facility rentals. Revenue from retail in FY 2015-2016 was \$265,500. The average retail purchase is \$21.00.
Food Service	Divine Café at Springs Preserve (Divine Events is exclusive caterer and operator) ♦ Indoor and outdoor dining. ♦ 4,380 SF indoors, 2,490 balcony outdoors ♦ Catering from the restaurant is available for special events at the Preserve. ♦ Overseen by Guest Services. ♦ Café open 11:00 AM to 3:00 PM Monday through Friday, 11:00 AM to 4:00 PM on weekends. As the exclusive caterer, Divine Events pays 5 percent of café gross sales, 10 percent of gross onsite catering food and beverage sales, and 3 percent of offsite catering sales. Divine Also pays \$1,200 per month in rent for shared office space.
Facility Rentals	There are 21 venues for event rentals within the Preserve. The outdoor amphitheater is the largest single space, with a capacity of 1,500. The entire facility can be rented to accommodate up to 4,000 people. The Springs Preserve hosts approximately 250 rentals each year. The size of the events varies, though typically is in the 50-100 person range. Roughly 100 of the event rentals are weddings. As the exclusive caterer, Divine Events contributes 10 percent of gross onsite catering food and beverage sales, in addition to other food service revenues described above. In FY 2015-2016 the rental revenue was \$362,600.

Table C-4 (continued)
Las Vegas Springs Preserve

<table>
<tr><td rowspan="8">Operating Budget</td><td>Expenses</td><td>FY 2015-2016</td></tr>
<tr><td>Curatorial and Education</td><td>$1,971,066</td></tr>
<tr><td>Marketing and Fundraising</td><td>1,645,283</td></tr>
<tr><td>Guest Services</td><td>2,007,483</td></tr>
<tr><td>Events</td><td>486,144</td></tr>
<tr><td>Administration and Operations</td><td>619,800</td></tr>
<tr><td>Science & Gardens</td><td>765,513</td></tr>
<tr><td>Total</td><td>$7,495,289</td></tr>
<tr><td rowspan="11">Sources of Revenue</td><td>Revenue and Other Support</td><td>FY 2015-2016</td></tr>
<tr><td>Las Vegas Water District Contribution</td><td>$4,680,605</td></tr>
<tr><td>Retail</td><td>265,524</td></tr>
<tr><td>Fundraising</td><td>171,301</td></tr>
<tr><td>Rentals</td><td>362,645</td></tr>
<tr><td>Events</td><td>602,787</td></tr>
<tr><td>Tickets</td><td>641,884</td></tr>
<tr><td>Membership</td><td>466,921</td></tr>
<tr><td>Education</td><td>183,656</td></tr>
<tr><td>Food and Beverage</td><td>119,965</td></tr>
<tr><td>Total Revenue and Other Support</td><td>$7,495,289</td></tr>
<tr><td>Building Costs</td><td colspan="2">Built at a cost of over $250 million.</td></tr>
<tr><td>Number of Employees</td><td colspan="2">Staff: Full Time Staff: 46; Part Time Staff: 34; Active Part Time Volunteers: 225 (132 adults and 93 teens)

Staff are accommodated in 5 separate office spaces.</td></tr>
<tr><td>Marketing</td><td colspan="2">Marketing budget $1.8 million in FY 2014-2015. This was decreased to $1.6 million in FY 2015-2016.

Marketing activities related to the Springs Preserve target a variety of population segments, depending on the overall promotional goals and campaigns. Increasing general admission and annual membership have been a priority since the Preserve's opening in 2007. Promotional efforts to market special events, educational classes, exhibits, and cultural activities are targeted to specific audiences via paid ad placements on TV, radio, and print, as well as other media, such as billboards and digital communications. All promotional and marketing materials are produced to be bilingual in English and Spanish.</td></tr>
</table>

Table C-4 (continued)
Las Vegas Springs Preserve

Partnerships and Accreditation	Member of the American Association of Museums. LEED-certified buildings.
Keys to Visitation and Operating Strategy	♦ New exhibits opening on a regular basis increase visitation and especially repeat visitation. The opening of Boomtown 1905 helped increase total visitation to date by 16 percent over last year. Similar effects are expected for the opening of the Waterworks Museum. ♦ Marketing efforts to promote events. ♦ Special events provide opportunities to upsell to membership or generate repeat visitation. ♦ Programming that gives visitors new reasons to return. ♦ Festivals and events that increase demography. ♦ More accessibility through reduced prices for residents.

Source: E-mail questionnaire response from Bruno Bowles, Manager, May 25, 2017. Facility profiled, www.springspreserve.org, 2016 AAM Guide; ConsultEcon, Inc.

Figure C-10
Las Vegas Springs Preserve Lobby

Source: www.littlevegaswedding.com

Figure C-11
Las Vegas Springs Preserve Café

Source: www.springspreserve.org

Figure C-12
Desert Living Center at the Las Vegas Springs Preserve

Source: www.springspreserve.org

Figure C-13
Living Collection at the Las Vegas Springs Preserve

Source: localadventurer.com

Table C-5
Living Desert

Facility Name and Location	Living Desert, Palm Desert, California
Date Opened to Public	The Living Desert was established in 1970.
Governance and Operations	Private, nonprofit organization. Tax-exempt: 501(c)(3)
Type of Museum	Park, Natural History Center, Gardens, Zoo
Mission	The Living Desert's mission is desert conservation through preservation, education and appreciation.
Site	Located in the Coachella Valley, just south of the City of Palm Desert.
Facility	A large campus with both indoor and outdoor areas includes Chase Gallery and Reception Area, Hoover Education Center and Discovery Room, Wildlife Hospital and Conservation Center, Village WaTuTu and District Commissioner's House, aviaries, butterfly house, amphitheater, children's play park and picnic area, cafés, gift shops, and an administrative complex. The facility has developed over time with many additions and changes.
Facility Size	A large facility with many types of indoor and outdoor spaces developed over time. ♦ 1,200 acres, with 1,000 acres remaining in their natural state. ♦ 200 developed acres. ♦ 700 parking spaces for cars; 14 for buses.
Market Size	4,527,837 (Riverside-San Bernardino-Ontario, CA MSA, U.S. Census Bureau 2016 Population Estimate)
Annual Attendance	408,000, including over 40,000 school-aged children in camps, field trips, and in-classroom programs.
Attendance Profile and Trends	The Living Desert appeals to all age groups. There are wilderness trails for fitness walking that are popular with adults. Live animals are popular with children and families. It is estimated that 50 percent of visitors are seniors and retirees, 40 percent are families, and 10 percent are singles and couples. Visitor origins are mixed, due to the area's seasonal nature. The area is a popular "snow bird" destination, so the resident population grows significantly from November to May. In the past, there have been more tourists than residents. Current visitor information indicates this may be changing, and there is a trend toward more residents, both retirees and families with children. Coachella Valley residents, both full-time and seasonal, tend to support attractions in their own community, and may not travel to adjoining communities. ♦ Drive-markets have been strong from L.A. and San Diego. ♦ Coachella Valley is reported as having 2 million visitors per year. German and British tourists visit in summer, and their visitation remains strong. Seasonality: November to May is the peak season, when the seasonal population is resident in the Coachella Valley.

Table C-5 (continued)
Living Desert

Admission	General Admission $19.95 Seniors (62+) $17.95 Children (Ages 3 - 12) $9.95 Children under 3 Free
Hours of Operation	Peak Season (October 1 to May 31) Hours: ♦ 9:00 am to 5:00 pm ♦ Last admission at 4:00 pm. Summer (June 1 to September 30) Hours: ♦ 8:00 am to 1:30 pm ♦ Last admission at 1:00 pm
Membership Price/Number	Prices: ♦ Individual: $79.95 ♦ Dual: $99.95 ♦ Family: $129.95 ♦ Supporting: $150 ♦ Donor: $250 ♦ Sustaining: $500 ♦ Curator's Circle: $1,000 ♦ Director's Circle: $2,500 ♦ President's Circle: $5,000 Total Number of Memberships: 13,000 Number of individuals represented in membership: 50,000 Life Members: 1,000
Interpretive Focus and Visitor Experience	The Living Desert focuses on the "deserts of the world," and plants and animals are viewed in naturalistic settings. The indoor/outdoor campus is planned as a journey through the deserts of the world and features two main areas: North American Colorado Desert animals and plants, and African savanna animals and village life. There is a winding path connecting exhibits and attractions. After entry, visitors view North American section, the more exotic African section, and also aviaries, a model train exhibit, and other exhibits. Grown and developed over time, the facilities lack a cohesive message. While the Living Desert has many interesting exhibits, it appears somewhat cobbled together and outdated. They are looking toward future planning. An upcoming expansion will improve the visitor entry experience to be more inviting and cohesive, as well as new animal exhibits, such as lions and rhinos. In spring 2017 broke ground on the new "Crossroads of Conservation" expansion, including new major animal exhibits featuring lions, rhinoceros, and hyena, as well as a special events center.

Table C-5 (continued)
Living Desert

Permanent Exhibits	♦ Butterflies! Winged Wonders ♦ Zoorassic Park ♦ African Deserts ♦ North American Deserts ♦ Animal Chats ♦ Trails & Natural Wildlife ♦ Endangered Species Carousel ♦ The Ant Lab ♦ Monarch of the Desert Jaguar Exhibit ♦ Plein Air Art Collection ♦ Discovery Center ♦ T-Wildlife Hospital and Conservation Center ♦ Eagel Canyon ♦ Gecko Gulch Play Park ♦ Carousel
Special Events	Howl-O-Ween, WildLights, Starry Safari Night Programs, and Brew at the Zoo
Education	♦ Student Programs: School groups on-site and outreach, a variety of programs from Pre-K through 12th grade aligned to meet California State Curriculum Standards and the Living Desert's mission. $6.00 per student, $9.00 per teacher/chaperone. ♦ Family Programs and Camps with emphasis on animals and adventure. ♦ Adult Programs through Living Desert University (environmental education) and lectures. ♦ Adopt-a-Tortoise (zoo loans out tortoises to families or schools) ♦ Wildlife Wonders Live Animal Presentations ♦ Travel Programs ♦ Volunteer Programs for teens and adults. ♦ Mojave Max Emergence Contest – guessing game about when desert tortoise Mojave Maxine will emerge from brumation.
Gift Shop	♦ The Plaza Gift Shop is open daily and offers a variety of books, designer jewelry, apparel, art and souvenir items. ♦ Kumbu Kumbu Market is a unique gift shop in Village WaTuTu, offering unique African-theme souvenirs and clothing. Gift shops are contracted to an outside vendor.

Table C-5 (continued)
Living Desert

Food Service	Limited picnic areas for visitors who may choose to bring their own food are available. On-site dining options include: ♦ Thorn Tree Grill is open daily in Village WaTuTu. This patio restaurant serves American cuisine and cold refreshments including beer. ♦ Coyote Café is open daily. The menu selection includes fresh, made to order sandwiches and salads, and a choice of beverages and desserts. Food service is contracted to an outside vendor.
Facility Rentals	Event rentals include a variety of venues, as well as full-service catering and bar services, an on-site event manager, concept design and coordination, and vendor contact and coordination information. All venue rentals are for 3-hour blocks; extra hours can be added for an additional fee. ♦ Chase Gallery and Reception Garden: up to 300 guests, ♦ District Commissioner's House: up to 50 guests. ♦ African Village WaTuTu: up to 1,200 guests ♦ Palm Garden Patio: up to 800 guests ♦ Discovery center: up to 250 guests ♦ Tennity Wildlife Hospital and Reception Area: up to 250 guests
Operating Budget	(see below)

Operating Budget

Expenses	FY End 6/2014	FY End 6/2016
Membership and Park Services	$1,292,805	
Education and conservation	571,497	
Zoological and botanical	2,156,200	
Marketing and Administrative	976,443	
Maintenance and Facilities	939,674	
Park Operations	1,431,183	
Programs		$8,667,595
Administrative Support	559,089	347,413
Fundraising	593,188	621,916
Depreciation	1,810,981	
Interest	144,930	
Total Unrestricted Expenses	**10,475,990**	**$9,636,924**

Table C-5 (continued)
Living Desert

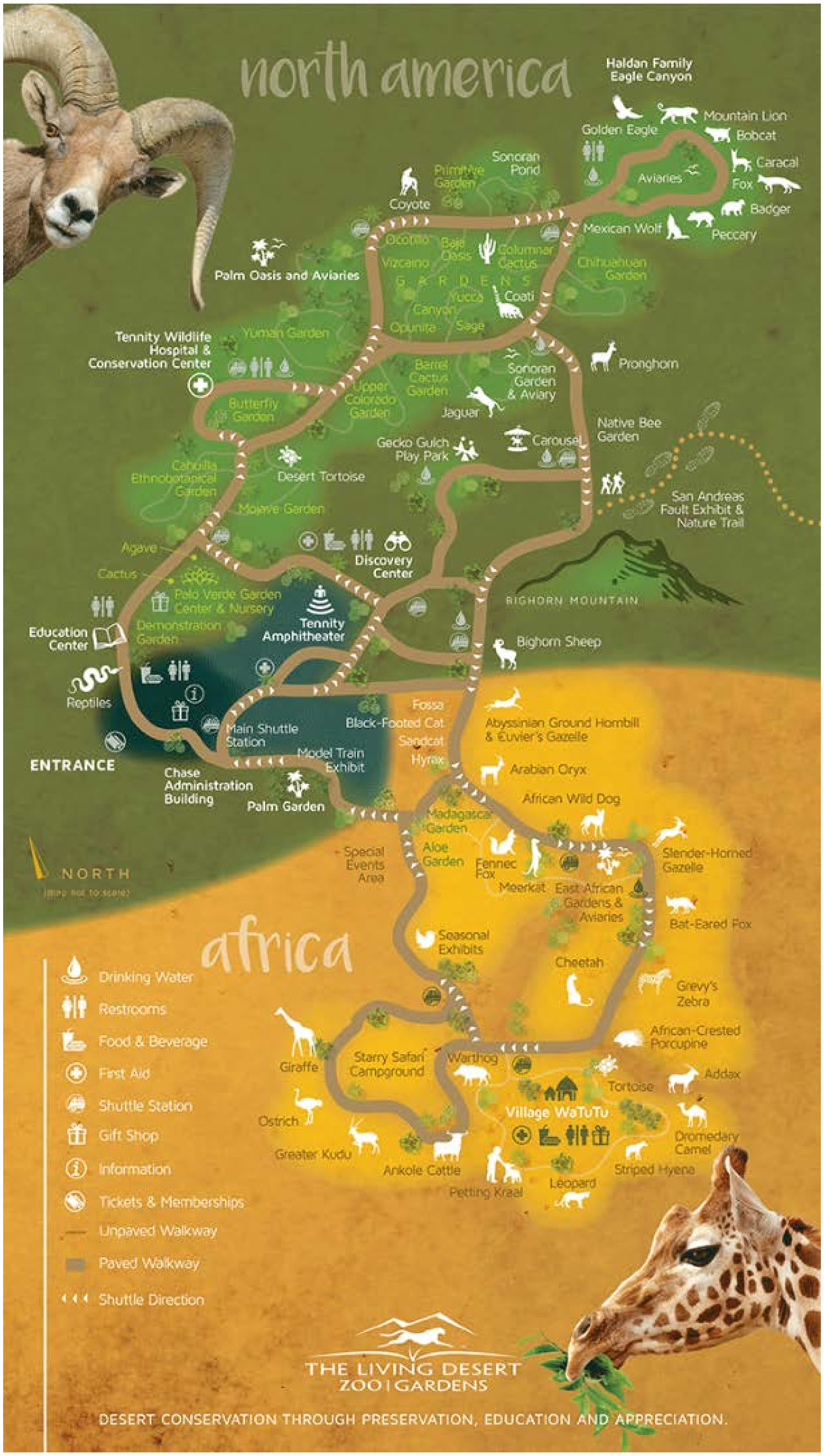
Sources of Revenue	**Revenue**	**FY End 6/2014**	**FY End 6/2016**
	Park Admissions	3,300,375	3,855,166
	Membership	1,167,241	1,392,227
	Park Services	1,066,021	1,205,239
	Contributions	7,203,192	1,104,308
	Special Events	611,420	852,690
	Investments	3,596,812	558,962
	Education programs	174,615	168,027
	Grants	$200,196	
	In Kind	-	375,847
	Other	-	56,866
	Total Unrestricted Support & Revenue	**$17,319,872**	**$9,569,332**
Operating Information	FY 2014: Attendance reached a peak for the organization's 44-year history. Estimated economic impact in Coachella Valley measured at $29 million. Received distinction from Trip Advisor as number-two reason for visiting the Coachella Valley, after golf.		
Number of Employees	Staff: 92 full-time, 40 part-time (In 1970, began with 1 employee.) Volunteers: 511		
Marketing	2014 fundraising budget at $976,443, nearly doubled from 2013's $459,900. Mix of TV, radio, and print advertising. Rack cards in hotels and tourist spots that look for information on what do to in the valley. Most marketing is event-driven and not focused on general visitation. Most marketing materials are produced in both English and Spanish.		
Partnerships and Accreditation	Accredited by the Association of Zoos and Aquarium, World Association of Zoos and Aquariums, and American Public Gardens Association		
Keys to Visitation and Operating Strategy	♦ Special events, exhibits and programs. ♦ Live animals and Wildlife Program ♦ Model train garden ♦ Natural desert habitat ♦ Walking and hiking trails. ♦ Successful plant nursery and garden center ♦ New CEO has focused on building up the Living Desert as more of a business, focusing on increased advertising and marketing, as well as earned revenue streams. ♦ Expansion of visitor entry and addition of more desert-authentic live animal exhibits, including lions and rhinos.		

Source: Interview with Dawn Petrick, Director of Park Services and Public Relations, May 6, 2016. Facility profiled, www.livingdesert.org, 2015-2016 Annual Report, 2017 AZA Member Directory, ConsultEcon, Inc.

Figure C-14
Village WaTuTu Gift Shop at The Living Desert

Source: www.livingdesert.org

Figure C-15
The Living Desert Map



Source: www.livingdesert.org; May 11, 2017

APPENDIX D

REVIEW OF SELECTED SOURCES OF NON-OPERATIONAL FUNDS

Following is further discussion of various sources of non-operational funds.

- **Corporate Sponsorships** - Corporations are increasingly viewing sponsorship of first rate cultural and educational institutions as a way to meet their charitable obligations, while gaining positive publicity and public recognition. The tying of specific exhibits or programs to their sponsors allows the sponsor to have on-site recognition or recognition in travelling exhibits and at events. An annual targeted development campaign by DDC might focus on regional and State corporations to gain sponsorships and partnerships. This approach has yielded significant results for many museums and educational organizations.
- **Government Grants** - There are a wide variety of grants available from government bodies and from foundations. Many museums receive substantial portions of their annual budgets from such sources[29]. These will be especially useful in funding special educational programs, exhibit reinvestment and for other focused activities. At many not-for-profit organizations, a percentage of available targeted tax revenues such as bed or meal taxes are dedicated to for their economic development benefits. They receive such funds based on their proven capacity to attract new visitors to the community, and thus generate economic activity and tax revenues.
- **Foundation Grants** - Foundation grants for specific activities are a major source of funds for institutions such as DDC. These grants may be for particular travelling exhibits or programs; to support educational or conservation activities or for reinvestment in the facility. These are often competitive grants, which require development resources for ongoing grant writing and management.
- **Private Philanthropy** - Many institutions derive funds from annual philanthropic giving and individual gifts.
- **Annual Gifts** - A targeted development campaign should focus on regional individuals and corporations, and people involved in the philanthropic world. This effort may take the form of higher-level sustaining memberships, (above and beyond the family-type memberships that are largely attendance driven).
- **Small Gifts** - can be solicited where a specific use is identified, such as the preservation of a particular site, object or living specimen, or to support an activity such as an educational class or program.
- **Fund Raising Events** - Annual balls, picnics, holiday parties and so forth are common fundraisers. Sometimes performers headline fundraising concerts at reduced rates or for free. Athletic events such as running or bicycling competitions can be sponsored.

[29] Many granting organizations require that an institution be in existence and/or open to the public for a specified period before being eligible to apply. Grant funds may require 18 months to 2 years to enter the income stream. Other revenue sources should be in place to cover this source at facility opening.

- **Leadership Giving** - In many institutions the Board of Directors make meaningful contributions annually as part of their leadership role.
- **Gifts In-Kind** - Some of the inputs to the operation of DDC lend themselves to support through gifts in-kind. Opportunities include marketing, utilities, Supplies etc. Full or partial donation of these could represent a major revenue source. Implementation of a conservation exhibit or a utility conservation demonstration project within the DDC campus might be the basis for such a gift- in-kind. Other basic supplies and inputs such as accounting services, maintenance supplies, website, advertising, insurance, travel services and so forth might also be purchased under special arrangements such as reduced profit margins or even as pure donations.
- **Educational Sponsorships** - Colleges in the Phoenix metro area can be sources for interns, docents and interpreters. In turn, DDC can provide substantial educational opportunities for students, and can be a resource to the entire educational and conservation community.
- **Other** - Many institutions have revenue sources particular to their programs, organization or communities. Examples include interest on operating accounts copyright payments, funding for-on-site research and so forth.

APPENDIX E

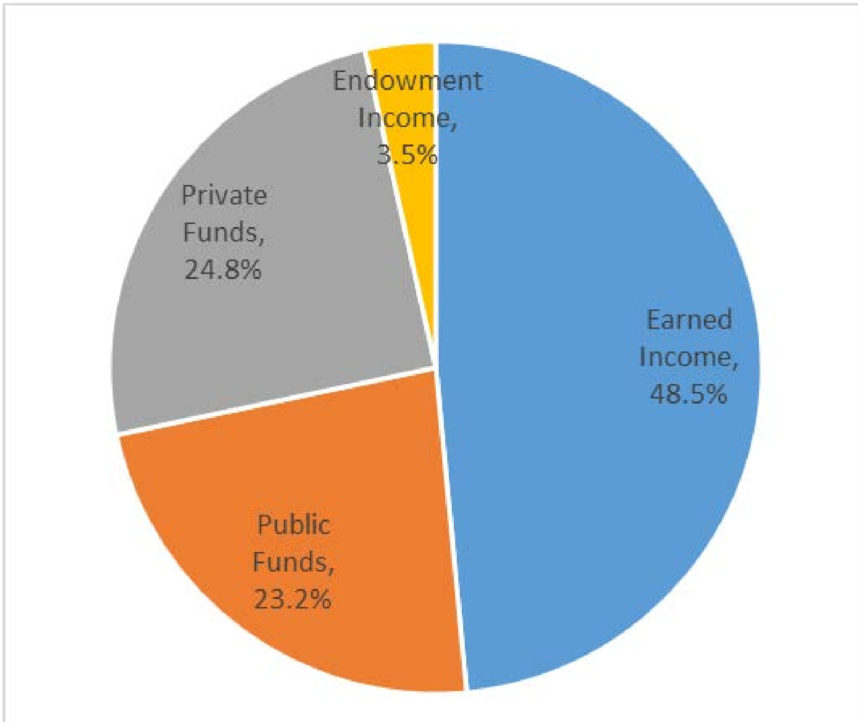
REVIEW OF PRINCIPAL REVENUE CATEGORIES FOR SCIENCE CENTERS

The following is a review of the revenue sources of science centers. Data for this analysis are drawn from the Association of Science-Technology Centers Incorporated (ASTC) 2015 Statistics Analysis Package. Between December 2015 and April 2016 ASTC distributed its survey to 484 science centers and museums and received 192 responses. These are assumed to be representative of the Science Center Industry. In turn from a marketing, operating and governance perspective, DDC will most closely resemble Science centers than any other sector of the not-for-profit educational attractions industry.

ASTC Science Center Experience

ASTC uses the term "Operating Revenue Sources" to describe the sources of revenue for operations at science centers. ASTC divides operating revenue sources into four major categories: earned income, public funds, private funds, and endowment income. Data in **Figure E-1** display the average percent of total operating revenue sources for the surveyed science and technology centers in 2015 the last year data were available. The range around these average can be much broader, with many science centers earning 70percent or more of their operating expenses; while others are well below the average. Success in fundraising at many science museums allows them to increase their activities and programs and/or to have lower ticket prices or add free admissions. In these situations, the lower Operating Revenue ratio is based on fund raising success, and not on failure to attain earned revenues to cover baseline operating costs.

Figure E-1
Operating Revenue Sources, 2015
(Average Percent of Total)



Source: 2015 ASTC Sourcebook of Statistics & Analysis; ConsultEcon, Inc.

Science and Technology centers have strong capacity to generate earned income. They also receive a relatively smaller percentage of government funding than other museums. Data in **Table E-1** provide operating revenue sources by science center location, size, and operating expenses category types.

Table E-1
Average Operating Revenue Sources by Location, Size, and Operating Expenses (Average Percent of Total)

		Earned income	Public funds	Private funds	Endowment income	n=
	All respondents	48.5%	23.2%	24.8%	3.5%	179
By location	**U.S.**	50.9%	16.2%	28.7%	4.1%	144
	Other countries	38.3%	52.0%	9.0%	0.7%	35
By institution type	**Science centers**	47.2%	27.9%	23.0%	1.9%	105
	All others	50.2%	16.6%	27.4%	5.8%	74
By size	**Very small**	39.7%	25.3%	32.6%	2.4%	37
	Small	53.9%	14.2%	27.1%	4.8%	43
	Medium	53.3%	20.4%	23.7%	2.6%	41
	Large	47.3%	29.5%	19.3%	3.9%	57
By operating expenses (USD)	**<$1 million**	44.3%	19.0%	33.7%	3.0%	34
	$1–$3 million	48.7%	22.0%	24.6%	4.7%	45
	$3–$10 million	54.2%	20.4%	23.2%	2.2%	59
	>$10 million	43.5%	32.1%	20.2%	4.3%	41

Source: 2015 ASTC Sourcebook of Statistics & Analysis

The data indicate that science and technology centers with higher operating expense budgets have lower ratios of earned income and private funds than do smaller science centers. This may indicate a higher capacity by larger science centers to attract government funding.

Data in **Table E-2** summarize the sources of public funding for surveyed science centers by science center location, size, and operating expenses category types. The data show that smaller institutions by both size and operating expenses are more likely to receive funding at the state or provincial level, while larger institutions are more likely to receive federal and national funding.

Table E-2
Public Funds Sources by Location, Size, and Operating Expenses
(Average Percent of Total)

		Federal/ National	State/ Provincial	Local	Tribal/other	n=
	All respondents	30.2%	30.6%	37.7%	1.5%	151
By location	**U.S.**	26.7%	29.4%	42.2%	1.7%	120
	Other countries	43.5%	34.9%	20.6%	1.0%	31
By institution type	**Science centers**	29.7%	34.7%	33.2%	2.4%	85
	All others	30.8%	25.2%	43.6%	0.4%	66
By size	**Very small**	34.9%	41.9%	23.3%	0%	26
	Small	32.1%	27.3%	40.6%	0%	33
	Medium	25.8%	27.4%	46.8%	0%	38
	Large	29.8%	29.4%	36.5%	4.3%	54
By operating expenses (USD)	**<$1 million**	25.2%	44.8%	30.0%	0%	19
	$1–$3 million	35.0%	34.5%	30.2%	0.3%	38
	$3–$10 million	21.0%	24.6%	52.3%	2.1%	53
	>$10 million	39.9%	28.1%	29.4%	2.6%	41

Source: 2015 ASTC Sourcebook of Statistics & Analysis

APPENDIX F
PRELIMINARY MARKETING STRATEGY

Publicity and public outreach will be an ongoing and increasingly important activity as DDC is developed. These activities will transition to the ongoing marketing, advertising, publicity, and fundraising for DDC as it opens and operates. Following is a Preliminary Marketing Strategy for DDC.

Product Definition

DDC product definition starts with its Mission Statement, and extends to its building, site program, and the types of experiences it will offer. The Desert Discovery Center Mission Statement is currently being developed.

DDC as planned will be an indoor-outdoor campus with a variety of spaces. It will be open to the public with admission fees to visit the exhibits. This will be a major destination in the Phoenix Metro Area and has the space and capacity to accommodate a high attendance pattern and high attendance days.

The architecture of the Desert Discovery Center (DDC) is conceived as a world-class statement on how to sensitively integrate a built environment into its pristine Sonoran Desert setting, while at the same time providing for all the educational, recreational, and social opportunities DDC affords.

Experiencing DDC's various pavilions and courtyards, visitors will gain an insightful education about the McDowell Sonoran Mountain Preserve, as well as the Sonoran Desert and other arid environments. Numerous interpretative exhibits, and hands-on demonstrations by Preserve docents will be contained within the courtyards and pavilions geared to all ages and all levels of interest. Programming partners, will substantially enhance the visitor experience by bringing expertise and content to changing exhibits, programs, and events, as well as offering guided hikes and specialized experiences.

An immersive theater experience will take visitors on an emotional journey through the desert. Within DDC, one will be able to fully encounter the mysteries of the desert and the hidden worlds of the desert plant and animal life through interesting and engaging exhibit experiences, suitable for both adults and children. DDC will be a place of constantly changing presentations and events so that one gains a different experience on every visit.

The campus will be a place of community gathering and entertainment, including:

- A restaurant/café, featuring a unique desert-dining experience.
- A shade covered amphitheater, featuring frequent and diverse talks and programs.
- A retail shop, featuring a unique blend of desert-related items such as gifts, hiking gear, books, desert plants, art, CD's, etc.
- The programming partners will reinforce DDC as the best place to learn about the latest research on desert environments and sustainable lifestyles in desert environments for those interested in these topics, and volunteer to support research or DDC overall.
- The Sonoran Seasons will be another community gathering place, as a multi-purpose, architecturally unique, indoor/outdoor pavilion that will be used for a variety of presentations and conferences, as well as social gatherings and corporate events.

DDC will most importantly act as a gateway to explore the McDowell Sonoran Preserve, as it will be directly linked to a short interpretive path to stroll into the desert or to continue on to enjoy the miles of pathways that take visitors deep into the desert. It will be a well-known destination for Scottsdale and in the Phoenix Metro Area as a whole.

Brand Development

DDC will develop its core "Brand" in a process paralleling its planning and development. A starting point for describing the "core essence" or "core characteristics" of DDC will help to establish the DDC Brand. These core essences will also inform the marketing messages to potential visitors. Simultaneously, as planned, a new name for DDC will be developed. It should be tested and verified as a part of the institution's brand development. Following are initial ideas for descriptions of the DDC's core essences that have been drawn from the characteristics of DDC, the visitor experience planning, and the input of the creative team and the client group throughout the planning process.

- A “true” Sonoran Desert experience.
- Feel the mystery and beauty of the Sonoran Desert.
- A desert experience that informs and entertains all age groups and levels of experience with the desert.
- A world-class facility that sensitively integrates a built environment into its pristine Sonoran Desert setting.
- The best view of the McDowell Mountain Range in the Phoenix metro area.
- Become engaged in conservation of arid places, starting in Scottsdale.
- A cool oasis in the desert.
- The authoritative interpreter of the Sonoran Desert.
- An entree to a lifetime of desert experiences.
- A great place to enjoy with family and friends.
- The best setting in Scottsdale for your special event.

The branding process is part of the ongoing project planning to distill DDC’s characteristics from a marketing perspective to focused characteristics that will become the basis for DDC publicity, marketing, advertising, and fundraising.

Market Segments and Target Audiences

DDC is expected to attract visitors from both resident and tourist markets. Marketing channels that engage both residents and tourists will be most effective. Because many visitors to the area look to area residents for advice on things to do while visiting the area, elements of the marketing efforts should focus on a general campaign in the Phoenix Metro Area. There are plentiful tourist prospects in the local area such that marketing outside the Phoenix Metro Area should focus on publicity and building familiarity in the travel industry, rather than in major media expenditures. The available advertising dollars are better focused in-market; with “earned media” (editorial coverage opportunities, as opposed to advertising) focused on general publicity and name recognition outside of the Phoenix market.

Types of Visitors

Elements of DDC’s marketing should focus on targeted types of potential DDC visitors such as the following:

- Resident market families.
- Adult couples and groups from the resident market.
- Outdoor sports enthusiasts including hikers and mountain bikers.
- Tourist families.
- People visiting friends and relatives who reside in Scottsdale or elsewhere in the metro area.
- Couples and singles staying in resorts and hotels in Scottsdale and other metro area communities.
- People interested in the latest research on desert environments and sustainable lifestyles in desert environments.
- Attendees of marquee events such as auto auctions, championship sports events, etc.
- Attendees of Phoenix Area conferences and events looking for a special place to visit, as well as event organizers who may use the DDC as the location for a conference related event.
- Seniors or others who can no longer hike deep into the desert environment.
- School groups.
- Attendees to social and business events held at DDC.
- People using DDC's restaurant as a destination for a meal or drinks with friends.
- People using the Gateway to access the McDowell Sonoran Preserve.
- People desiring a Sonoran Desert experience during the hottest months.

Usage Patterns

Related to the product offered, and available markets, usage patterns suggest that the following will be primary ways that visitors will engage with DDC:

- As a special outing on a weekend, holiday or while on vacation.
- As a regular part of one's leisure time routine -- this especially occurs among DDC members and volunteers.
- As part of a school group.
- With a group such as an elder hostel, a church group, or Boy and Girl Scouts.
- For special programs and events such as lectures, guided hikes, new exhibit openings, and so forth.
- For children's birthday parties during regular hours.
- Before or after a desert hike or bike ride.
- To attend a business or social function.

- To have a meal or drink with friends.
- To purchase a special item at the retail store.

Product Pricing

Attendance is the primary driver of Operating Revenues. Attendance levels are also an important contributor to the evaluation of mission fulfillment and public reputation. Thus, a pricing strategy that focuses on high attendance both supports mission fulfillment and supports the financial success of DDC. A benchmark DDC adult ticket price of $17.50 is assumed with youth tickets (ages 3-12) at $11.00. In marketing DDC, the high value to price ratio these proposed ticket prices represent will be a strong selling point. As the project moves forward and the DDC plan is refined, the ticketing assumptions and pricing will need to be revisited along with assumptions regarding the use of "coupons" and discounting of admissions. The ticket prices used in the business plan are in line with the quality and value of the product offerings, the typical visitor length of stay at DDC, the experience of comparable facilities nationally, and with local area conservation, cultural, and educational attractions. Prices in this range signal to a potential visitor that there is a major experience offered; but that the price is not too high to give pause to most potential visitors.

Organizational Partners

DDC will provide experiences that are both enjoyable and educational. The conservation mission of DDC will be advanced. Its visitors will include residents, school children, and tourists. Therefore, there is a broad array of existing organizations and entities that will have common interests with DDC. The following are examples of partnerships that are now forming.

- Area conservation, science, and nature-based attractions could create joint ticketing, programming, marketing, and other strategies.
- Tourism based organizations may offer cooperative advertising opportunities, joint website placement, and other marketing opportunities. Connections to other Scottsdale leisure and entertainment oriented entities should also be explored.
- Partnerships with individual hospitality entities may be desirable. These might include bus tour package organizers, Scottsdale resort properties, event planners, and hiking guides.

The intent in each of these relationships is to find areas of mutual interest and programs that can advance DDC's marketing effectiveness. However, care must be taken that DDC maintain its standing, foremost as an advocate for the understanding and conservation of the Sonoran Desert and the McDowell Sonoran Preserve.

Marketing Budgets

An advertising budget of $612,000 in current dollars is included in the DDC operating plan based on $2.00 per attendee. This is commensurate with ticket pricing, the overall marketing budget, and industry best practices. This budget when leveraged with cooperative advertising and other such techniques is sufficient to maintain a strong marketing presence. In addition, however, marketing will be in part a personnel or overhead expense across multiple departments, including marketing, membership, visitor services, facility rental and management, and education and public outreach staff. A significant responsibility of all of these positions is public outreach. Thus, in addition to the media and sales aspects of marketing, there will be an ongoing effort toward creating events and programs that are news-worthy and will create opportunities for formal and informal outreach to targeted market segments. In addition, the DDC website should be leveraged as a primary marketing vehicle, and adequate funding should be allocated in the planned operating budget to dedicate staff and resources to maintenance of DDC's web presence.

Design of Marketing Programs

The marketing, advertising, and public relations elements of the marketing program – during all phases – must not only describe the quality of the planned attraction, but also create excitement among residents, potential visitors, media, and potential funders, sponsors, and marketing partners. Media and marketing design should reflect the following elements.

- The location, site, and accessibility must be emphasized in all media and marketing materials, and must be part of what builds community support.
- Vivid descriptions must be developed during DDC planning and design for future programming, including exhibits, events, and community uses.
- Marketing messages should appeal to as many audience segments as possible for cost-effectiveness and should be used in targeted, focused campaigns for each audience.

The DDC website will be the information portal for most people regarding a visit to DDC and regarding its important interpretive themes. It should be well-designed at inception and well-maintained to provide the public with updates on all that is happening at DDC, in addition to including content related to DDC that draws visitors to learn more about DDC and the desert environment it interprets.

Phasing of the Public Relations and Outreach Efforts

Public relations and outreach efforts are now underway. Following are suggested activities and a proposed sequence for the public relations and outreach efforts. As noted many of these efforts have begun or are in place.

Phase I - Building Community Support Through Marketing and Public Relations

During the planning, building, and launch phases of the project, it is important for project sponsors and advocates to engage the public and build support for the overall goals of DDC. Community leaders can use more of a public relations (or community relations) approach, directed toward the Primary and Secondary Resident markets, which is most cost-effective at this stage. It consists of the following segments.

- ♦ Additional community meetings, with advance notice via the city's website, e-mail blasts, notes with utility mailers, city newsletter, and local/regional media outreach (newspapers, radio stations, and television stations).
- ♦ Creation of a Facebook "fan" page devoted to tourism, with sections for each special area of DDC interpretation, and a section focusing on the efforts to create DDC.
- ♦ Media training for project sponsors, city officials and those most involved in the economic development efforts in order for them to be adequately prepared to discuss DDC and how it fits into Scottsdale's conservation efforts and tourism development activities. This would happen after all "messages" are finalized.
- ♦ Regular media outreach and media appearances by project sponsors and city officials during each phase of the project, with a media plan designed for outreach to local, regional, state, national, and international media.

Phases II and III - Marketing and Public Relations

Since DDC's cash budget for marketing/advertising buys will have constraints during initial development and later when open and operating, the recommended focus of the available dollars is to create exceptional advertising and promotional materials. Then, focus on taking advantage of other "earned media" (editorial coverage opportunities, as opposed to advertising) opportunities to spread the word about DDC. Having superior marketing materials will be attractive to marketing partners and enhance the effectiveness of marketing and promotional materials when they receive public exposure. This will mean an aggressive "strategic communications, media relations, and PR campaign," designed and executed by a staff person designated for this role.

Initially, this will mean staged message development as plans are refined for DDC. Messages will be formulated as the vision and direction for the building of DDC and for the role that it will play in the life of the community and the region become increasingly clear and detailed over time.

When early messages are developed, they should be tested with the list of potential funders, sponsors, programming partners, and marketing partners. These messages should be brief, concise, and designed to give an overview of the vision for DDC, the costs involved in bringing it to completion, and examples of how DDC will affect and improve the lives of those in the Community; enhance conservation of the McDowell Sonoran Preserve and the Sonoran Desert as a whole; as well as how it will serve as an important "draw" for tourists and regional residents.

Earned media can also be built around website development, planning phases, and special events in support of DDC. In addition, the events that occur in Scottsdale must be used to their maximum advantage to market and promote DDC in all its facets. An audience attracted for an advertised community event may not be aware of the planned DDC. Implementing a plan to directly inform and attract these people can be highly effective in building its audience and maintaining a high profile in the area.

Media materials should include:

- Fact sheet on the plans for DDC.
- Photos of the McDowell Sonoran Preserve.
- Photos of planned areas for DDC development and the design concepts to date.
- Enhanced website specific plans for DDC.

- Ties to city / DDC website.

Language and style in message development and in media materials should consider the following:

- All materials should be developed in both Spanish and English.
- All materials should also reflect the language/content on the Scottsdale city website.
- All materials should also focus on the "storylines" that will be part of the mission of DDC: environment and ecology; conservation; celebration of the desert's beauty; living in the desert environment; and others.
- Messages should:
  - Emphasize the future role of DDC as an iconic destination attraction that becomes co-branded with the city of Scottsdale.
  - Reflect the critical mass and quality of attraction elements inherent in DDC and its mission.
  - Reflect the connection to and participation of programming partners at DDC.
  - Serve resident, tourist, and other markets (funders, sponsors, marketing partners, potential exhibit producers).
  - Have "repeatability" and be open to review and adaptation as plans grow and change.
  - Advance the goal of attracting new audiences and contributing to longer stays.
  - Help foster better "word of mouth" advertising by visitors: give them phrases that are easy to summarize and repeat to others.
  - Reflect the storylines of DDC that will enhance the competitive position of the area and DDC as a tourist, conservation and educational destination.
  - Emphasize the impact on quality of life for area residents (the cultural, recreational, educational, and aesthetic resources that will be enjoyed by residents as well as visitors and will inspire community pride).

Once the final plan is in place, DDC needs to organize familiarization tours ('fam' tours) for local area travel agents, statewide tourism officials, CVB staff from the surrounding cities and areas where appropriate, as well as travel writers and tour packagers and operators.

Examples of Media Outlets

Links to tourism-related websites are also important. There are a number of Phoenix Metro Area Tourism related websites that might be ideal for linking and cross promotion.

Establishing strong relationships with Phoenix Metro Area media outlets will be vital to staying top of mind in the area and in providing good coverage for DDC related activities and press releases. There is a diversity of Media Outlets in the Phoenix Metro Area that are available and that should be utilized.

Local, Arizona and national media and magazines that could be targets for earned media (editorial coverage opportunities) might include: The *Arizona Republic*, *North Valley Magazine*, *Arizona Weekly, KKNT* news talk radio*, East Valley Tribune, Monthly*, *Arizona Highways Magazine, Arizona Foothills Magazine*, and *Conde Nast Traveler, Travel + Leisure* Magazine, and *Backpacker* Magazine among many others.