Mitchell Park Horticultural Conservatory Future Path and Feasibility Study

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Mitchell Park Horticultural Conservatory
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SECTION I
INTRODUCTION AND ASSUMPTIONS

INTRODUCTION

The Consulting Team of HGA and ConsultEcon have completed Phase I of the overall process of helping to develop a vision for the future of the Mitchell Park Horticultural Conservatory; "the Domes." This multi-phase process is in response to an RFP prepared by the Milwaukee County Department of Administrative Services along with the Milwaukee County Task Force on the Mitchell Park Conservatory Domes. From the RFP:

> "Milwaukee County Department of Administrative Services along with the Milwaukee County Task Force on the Mitchell Park Conservatory Domes is requesting proposals for professional consulting services to help develop a vision for the future of the Mitchell Park Horticultural Conservatory. The Conservatory building complex includes three 50+ year old display domes, a greenhouse and annex complex added in 2015, as well as support and educational structures. The display Domes are in need of extensive rehabilitation along with repairs and updates needed for many support spaces. Planning is underway for the next phase of this long-time Milwaukee attraction. Here at a crossroad, there is an opportunity to review the services that the Conservatory provides to the community, as well as provide for a sustainable facility and operating model. Multiple aspects of future planning are in need of refinement and study in order to determine the most appropriate path for the future of the Conservatory."

Phase I - Feasibility Study research and analysis include:

- Programs and Services Analysis
- Revenue Generation and Operations Analysis
- Location, Site, Structure, and Facilities Evaluation
- Market Context of Resident and Tourist Markets
- Comparisons to major Milwaukee Education and Cultural Attractions
- Industry Benchmarks and Trends
- Social and Economic Benefits
- Identify and investigate six (6) opportunities from analysis above

This report presents the results of the first phase of that visioning process in which: input was received from government leadership, representatives of Milwaukee County assigned to this process, the staff of the Domes and community representatives; industry research and technical studies were undertaken; and a series of seven monthly presentations and work sessions were conducted with the Milwaukee County Task Force on the Mitchell Park Conservatory Domes ("Task Force"). This report begins by identifying opportunities for the future of the Domes followed by summaries of the data and analyses that the framing of the opportunities was based on.

SUMMARY

The findings and data in this report demonstrate that Mitchell Park Horticultural Conservatory lacks the staff, programming, a relevant governance structure, and versatile spaces needed for success in today's market. These conditions make the Domes unsustainable for operations and for future maintenance of the facility. Efforts are underway, led by Milwaukee County and the Domes Task Force to address this situation. Findings in this study include:

- There has been inadequate preventive maintenance performed over a long time period which has exacerbated the physical condition of the 50+ year old structures.
- There are currently minimal staff serving both plants and visitors to the Conservatory which has left it with little capacity to expand programs, react to market opportunities or create new experiences excepting the changing flower shows.
- There is a lack of substantial marketing specifically for the Domes facility which has minimized attendance, revenues and operating resources.
- The Domes do not have adequate event space, educational space, presentation space, and equipment. The inadequate facilities are keeping the facility from reaching its market potential to groups and individual visitors in the area. The limited facilities also create a comparatively brief visitor experience which also limits attendance and ticket prices.
- To date the governance and operating structure of the Domes combined with the physical and operational factors addressed above have limited the attractiveness of private sector involvement in investment in and operational funding of the Domes. Major investment in the facilities and expanded operations is likely tied to initial investments by Milwaukee County in the facilities and in operations.
- This cycle has been in place for some time, and this report is part of the effort to address the future of the Domes.

The variety of options for the future of the Domes presented in the report address these current conditions and challenges by outlining, on a preliminary basis, strategies to correct deferred maintenance; expand and enhance the facilities; augment and improve operations and evolve governance. These improvements will collectively make the Domes more economically sustainable on an ongoing basis.

Within these options there are viable approaches that can help to provide for a sustainable and economically viable Domes facility in Mitchell Park in the future. These approaches will require initial and ongoing investment by the public and private

sectors. The results of implementing a sound strategy for revitalization of the Mitchell Park Domes will bring substantial economic and community benefits to Milwaukee County while preserving the iconic historically significant structures.

ASSUMPTIONS

In preparing this report, the following assumptions were made. This study is qualified in its entirety by these assumptions.

1. 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. 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.
2. This report may not be used for any purpose other than that for which it was prepared. Possession of this report does not carry with it the right of publication. This report will be presented to third parties in its entirety and no abstracting of the report will be made without first obtaining permission of Milwaukee County.
3. This report was prepared during August 2017 through March 2018. It represents data available at that time. Additional edits to the report were made in April, May, June, and July 2018 and additional data was provided by Milwaukee County.

SECTION II
OPTIONS FOR THE FUTURE OF THE DOMES

Introduction

The study design prepared by Milwaukee County calls for and this study provides broadly based options for the future of the Domes to reflect a full range of physical changes and governance and operational changes along with the implications of these options. This is Phase I of a three phase planning process. The facility options evaluated range from Do-Nothing and Demolishing the Domes to investing proactively in the Domes to create a much more valuable and impactful asset for the citizens of the County and for its economic development. Governance options could vary considerably from remaining as a unit of Milwaukee County Parks in a do-Nothing strategy to public-private partnerships where substantial investments in the Domes are made. With the defined and informed options, and preliminary assessment of the implications of the options as supplied in this report, a direction can be determined in subsequent Phase II and Phase III of the process that will be the basis for future more detailed physical planning and design, cost estimating, and operating planning, needed to inform a final course of action for the future of the Domes.

The process of defining options for the future of the Domes was based on: evaluation of the physical characteristics of the Domes and their support facilities, grounds and parking; reports on the deferred maintenance of the Domes and the implications of correcting the deferred maintenance; past reports and analyses regarding addressing the future of the Domes; the input of Domes leadership and staff and Friends of the Domes; data regarding Domes operations, Domes audience makeup; the experience of other horticultural facilities; a review of cultural and educational facilities in Milwaukee; analysis of the resident and tourist market characteristics as well as identified market opportunities. The input of Milwaukee County staff,

the Domes Task Force and the public comments received during Task Force meetings all contributed to the identified options. These Options were reviewed by County staff and the Task Force at the February 2018 Task Force meeting and were approved to reflect a reasonable range of options that will inform subsequent phases of the process to develop a vision for the future of the Mitchell Park Horticultural Conservatory.

Following are summary outlines of the six options. These range from Option 1 - "Do Nothing" to options which represent expansive visions for the future. The two most expansive visions each have two variations: Options 5A and 5B - EcoDomes and 6A and 6B – Adventure Domes. These represent variations on the approach to developing the Domes. The rationale for providing variations to these options is that the structural integrity of the concrete structures that the domes glass is attached to may well be limited in ways that typical buildings are not. An initial estimate that the structural integrity could be as short a timeframe as 25 years was provided by County staff; who have also stated that the estimate will be confirmed through upcoming structural engineering analysis. If that were the case (to be verified based on future structural testing of the Domes), then the capacity to float County bond issuances for major capital investment in the Domes themselves might be limited. If that were the case, then an alternate development approach could be to replace one or more of the Domes with a new conservatory structure that would contain the new conservatory elements suggested in Option 5 -EcoDome or Option 6 - Adventure Dome; and to invest in the tropical and desert domes in ways commensurate with their remaining useful lifespans. Planning and design and public processes are planned to follow the current planning phase to determine the optimal future for the Domes.

It is important to note that these options include not only physical repairs, investments and changes and their initial capital costs; but also operating, organization and governance implications. That is, some of the Options include changes and investment in exhibits and visitor experience and in the Domes operating organization. Some of the Options are assumed to

require the addition of a greatly increased private sector role in Domes initial capital funding and an increased role in future operations and supportive funding.

Detailed tables describing the Options and the likely outcomes of the Options follow these summary outlines.

Option 1: "Do Nothing"

- No Action taken on remediating deferred maintenance.
- Deterioration continues. Likely to shorten the useful life of Domes support structure through continued water infiltration.
- Requires continued reinvestment in mesh screens and intermittent closures for inspections. Milwaukee County Parks has stated a five-year cycle with inspections every two years. Each inspection period can take several months. The average cost of inspections is $500,000. On an average month the lost revenue would be $85,000. A two-month closing implies $190,000 in lost revenue.
- Sub-optimum conditions for plant collection continues.
- Excessive utility costs continue which divert County funding support from other positive expenditures in Domes operating budget.
- This Option is assumed to lead to demolition of the Domes at some point in upcoming years.

Option 2: Demolish Domes

- Provision for transferring portions of the collections to a suitable location; or loss of valuable and important botanical collections. Milwaukee County Parks has indicated that the plant collections may be valued at $3.2 million, with the cactus collections representing most of the value.
- May require constructing a new facility to house portions of the collection; or shipping out-of-state. New uses would have to be found for the Greenhouses and Annex.
- Capital costs include: Demolition of Domes; re-landscape parking lots and roads, transferring plants to a new home (build new facility?), investment in Greenhouses and Annex for new use.

Option 3: Address Deferred Maintenance

- Repair building envelope (glass, seals, concrete coating, etc.) and address ADA and Code issues at the Domes.
- Cost for deferred maintenance is $20 to $30 million. Future more detailed studies will refine the cost estimate.
- Operations continue as current.

Option 4: Targeted Investments

- Address deferred maintenance.
- Add key additions and new construction to increase functionality of Domes complex. Includes classrooms, offices, meeting space, storage, ADA upgrades.
- Improve / expand guest entrance, ticketing sequence and group arrival areas.
- Add improved retail space, and food service with small seating area.
- Improve connections to Greenhouses and Annex; Enhance Annex as a venue for facility rentals, add catering kitchen and air conditioning.
- Increase parking capacity and site wayfinding; Improved connections to park and trail.
- Operating enhancements: staff, operations, programs, education, and partnerships.
- Increased role for Friends of the Domes.

Option 5: EcoDome Destination Attraction (In addition to Targeted Investments)

Option 5 represents an expanded vision for the Domes as a destination education, conservation and recreational attraction focused on ecological habitats and horticultural themes. Two sub-options are outlined to reflect the range of ways this could be developed and to acknowledge that the useful life of the concrete structures may limit levels of reinvestment in the existing Domes.

Option 5A: EcoDome Destination Attraction (In addition to Targeted Investments)

- *Show Dome*: New immersive Ecological Habitat Zone; canopy walks, aquariums, live animals.
- Create Changing Exhibit area.
- Create new facility for themed flower shows and other public events.
- Add butterfly and other animal exhibit elements to Botanical Domes.
- Add outdoor Children's Garden in ticketed zone.
- Expand outdoor gardens – meditation, therapeutic, ethnic, rose, herb, heritage, etc. these might be part of the ticketed zone or open to the public.
- Add Community Gardens.
- Add conservation and ecological elements in new exhibits and in Domes.
- Destination restaurant.
- Operating enhancements: staff, operations, programs, education, partnerships, Governance.

Option 5B: Hybrid Redevelopment EcoDome Destination Attraction

- Create EcoDome Destination Attraction in the location of razed Show Dome. The Show Dome is a candidate to be razed if that were to occur because it does not have a plant collection.
- A new building would be targeted at a 50+ year lifespan. The current Domes have shorter remaining lifespans as they are already over 50 years old. Thus, a build-to suit Dome may be more easily financed on a long-term basis and could provide specific physical attributes for a destination attraction.
- Facilitates development in a built to suit building.
- Accommodates investment criteria with a long-term facility lifespan.

Option 6: Adventure Dome Destination Attraction (In addition to Targeted Investments)

Option 6 represents an expanded vision for the Domes as a destination education, conservation and recreational attraction featuring active engagement and physical activities within ecological habitats and horticultural areas. Two sub-options are outlined to reflect the range in ways this could be developed and to acknowledge that the useful life of the concrete structures may limit levels of reinvestment in the existing Domes.

Option 6A: Adventure Dome Destination Attraction (In addition to Targeted Investments)

- *Show Dome*: New Themed Adventure Experiences: canopy walks, zip lines, climbing structures, water play features, playground - All with botanical setting.
- Create Changing Exhibit area.
- Create new facility for themed flower shows and other public events.
- Add butterfly and other animal exhibit elements to Botanical Domes.
- Add outdoor Children's Garden in ticketed zone.
- Destination restaurant.
- Operating enhancements: staff, operations, programs, education, partnerships, and governance.

Option 6B: Hybrid Redevelopment Adventure Dome Destination Attraction

- Create Adventure Dome Destination Attraction in the location of razed Show Dome.
- A new building would be targeted at a 50+ year lifespan. The current Domes have shorter remaining lifespans as they are already over 50 years old. Thus, a build-to suit Dome may be more easily financed on a long-term basis and could provide specific physical attributes for a destination attraction.
- Facilitates development in a built to suit building.
- Accommodates investment criteria with a long-term facility lifespan.

Phasing is Inherent in the Options

In all options except Option 2 – Demolish the Domes, ongoing operations of all or portions of the current Domes complex is planned. In addition, the time required for planning, design, capitalization, construction and time required to propagate new botanical displays and gardens will require many years to be completed. In addition, some of the potential options require significant changes in governance and operations to be feasible from capital investment and operations perspectives. Such changes will also take time. Therefore, reaching full implementation of a given Option for the future of the Domes will likely be phased and occur over time. Such a phased approach will still require a plan for the full implementation of the option, both in the physical changes as well as for operations and governance. Such a phased approach takes more time, but a given phase of investment or change will likely be more doable and feasible than an implementation approach based on a single large redevelopment of the Domes complex. Each phase of capital investment will enhance the Domes experience and build public interest and attendance and enhance opportunities to address governance and operations.

Capital Cost Allowances

To provide an important factor for the initial evaluation of the options, preliminary and "order-of-magnitude" estimates of the possible capital costs of the options have been made by the consulting team with the input of Milwaukee County personnel. These must be used as indicators of magnitude of cost only. This is because the Options have intentionally not been closely defined pending subsequent more detailed refinement phases of the process; and, professional cost estimating of the detailed plans will be necessary to obtain reliable capital cost estimates. However, these initial estimates can be considered "allowances" for the various Options and do provide information to guide the decision-making process at this point. It is also important to consider that the capital costs are representative of several phases of investment.

Descriptions of the Facility Elements in the Options

Data in **Figure II-1** provides a matrix of potential facility elements in the Options. The essential initial phase of investment is repair of the building envelopes. With these essential repairs that address essential deferred maintenance, other investments to address other functional and physical obsolescence, and invest in additional visitor experiences, improve educational infrastructure, add conservation elements and earned revenue capacity. The market research and comparable facilities analyses included in this report indicate that there are several approaches to achieving a robust future for the Domes as outlined in Options 4, 5 and 6. These are representative of a variety of approaches that will be available in future detailed planning phases. The Options outlined in this report are deliberately differentiated. The facility elements included in Options 4, 5 and 6 are examples of improvements to the Domes that could be included in the future. The Options are for illustrative purposes only and intended to support decision making about a future path for the Domes. These are not concrete and fully vetted plans. This phase I planning effort cannot create such options as that will occur in Phase III. For instance, the differing elements included in an EcoDome Option are a means of differentiating it from an Adventure Dome Option. Future planning phases will refine the options under consideration.

Figure II-1
Facility Elements in Options for the Domes

				Options that bundle Opportunities to create a vision for the future				
	Option 1 "Do Nothing"	**Option 2** Demolish Domes	**Option 3** Address Deferred Maintenance	**Option 4** Targeted Investments	**Option 5A** EcoDome Destination Attraction	**Option 5B** Hybrid Redevelopment EcoDome Destination Attraction	**Option 6A** Adventure Dome Destination Attraction	**Option 6B** Hybrid Redevelopment Adventure Dome Destination Attraction
# **Opportunities to Rehabilitate and Expand Domes Facilities** (Preliminary Estimates for Discussion Only)		Capital Cost Allowance $10 to $15 Million	Capital Cost Allowance $20 to $30 Million	Capital Cost Allowance $40 to $50 Million	Capital Cost Allowance $70 to $95 Million	Capital Cost Allowance $70 to $95 Million	Capital Cost Allowance $70 to $95 Million	Capital Cost Allowance $70 to $95 Million
1 Repair All Domes Building Envelopes								
2 Repair Desert and Tropical Domes only; Replace Show Dome with new Destination Attraction								
3 Substantially improve structure or replacement								
4 Upgrade HVAC Systems								
5 Improve / expand guest entrance, ticketing sequence and group arrival areas								
6 Add classrooms, meeting space, staff offices, storage								
7 Add improved retail space, and food service with small seating area								
8 Improve connections to greenhouses and Annex								
9 Enhance Annex as a venue for facility rentals, add catering kitchen, A.C.								
10 Increase parking capacity and site wayfinding								
11 Improved connections to park and trail								
12 Improve exhibit experience in Horticultural Domes								

Figure II-1 (continued)
Facility Elements in Options for the Domes

				Options that bundle Opportunities to create a vision for the future				
	Option 1 "Do Nothing"	Option 2 Demolish Domes	Option 3 Address Deferred Maintenance	Option 4 Targeted Investments	Option 5A EcoDome Destination Attraction	Option 5B Hybrid Redevelopment EcoDome Destination Attraction	Option 6A Adventure Dome Destination Attraction	Option 6B Hybrid Redevelopment Adventure Dome Destination Attraction
13 Showdome: new immersive Ecological Habitat Zone; canopy walks, aquarium tanks, live animals								
14 Showdome: new botanically themed Adventure Experiences: canopy walks, zip lines, climbing structures, water play features, playground								
15 New Dome: new immersive Ecological Habitat Zone; canopy walks, aquarium tanks, live animals								
16 New dome: new botanically themed Adventure Experiences: canopy walks, zip lines, climbing structures, water play features, playground								
17 Create new facility for themed flower shows and other public events								
18 Add auditorium								
19 Create Changing Exhibit area								
20 Add butterfly and other animal exhibit elements to Botanical Domes								
21 Add outdoor Children's Garden in ticketed zone								
22 Expand outdoor gardens -- meditation, therapeutic, ethnic, rose, herb, heritage								
23 Add Community Gardens								
24 Add conservation and ecological elements in new exhibits and in Domes								
25 Destination restaurant								

Figure II-1 (continued)
Facility Elements in Options for the Domes

				Options that bundle Opportunities to create a vision for the future				
	Option 1 "Do Nothing"	Option 2 Demolish Domes	Option 3 Address Deferred Maintenance	Option 4 Targeted Investments	Option 5A EcoDome Destination Attraction	Option 5B Hybrid Redevelopment EcoDome Destination Attraction	Option 6A Adventure Dome Destination Attraction	Option 6B Hybrid Redevelopment Adventure Dome Destination Attraction
26 Move Plant Collections to new location								
27 Demolish Domes								
28 Create new uses for Greenhouses and Annex								

Source: HGA and ConsultEcon, Inc.

Future detailed planning will certainly refine the Options, and it may be that a future plan will draw from several of the options presented as well as additional ideas and features. Conversely, Option 3 simply repair of the building envelopes will not change the current underutilization of the Domes, operating deficiencies or address other needed reinvestment to the fifty-year-old facilities.

Governance and Operation Improvement Options

Addressing the deferred maintenance and improving the Domes and its campus to achieve higher levels of attendance, earned revenues and community benefits cannot be implemented without simultaneously addressing governance and operations of the facility. From a governance perspective, Options 1, 2 and 3 would be the responsibility of Milwaukee County to allocate funds for addressing deferred maintenance and/or to demolish the Domes. It seems unlikely that the private sector would participate in funding these options. However, in Options 4, 5 and 6 capital funding for improvements beyond deferred

maintenance will likely require a public -private partnership to raise needed capital and to implement the adopted plan. It is the experience in Milwaukee and elsewhere that in situations where government units such as Milwaukee County are targeting such major quality of life and economic development projects, they are often undertaken in public private partnerships. A public private partnership approach to capital funding is typically accompanied by an expanded private sector role in facility operations. The governance format varies in other similar situations, with alternatives that have been adopted such as full operations by a not-for-profit mission driven organization; shared operations and variations on these. Local examples of County assets that have benefited from changed governance (public – private partnerships) include the Milwaukee County Zoo and the Milwaukee Public Museum. It should be noted that the City of Milwaukee has deed restrictions on the Mitchell Park's land and these would need to be addressed to ensure that a private not-for-profit enterprise could participate in a public – private partnership operation of the site.

With investments in the facility, market demand will increase for all relevant types of use of the Domes and associated areas. There will be increased earned revenues as well that will vary substantially by option. To serve the increased demand and to take full advantage of attendance and earned revenue opportunities expanded staff and operating budgets will be needed. Further, as a major education and conservation institution, the expanded and improved Domes will also require more non-earned revenues to go along with their increased earned revenues to maximize the benefit of the investment made by the public-private partnership. Therefore, on an on-going basis a much higher level of fundraising, sponsorship and corporate and philanthropic involvement will be needed. This future operating profile and need for private sector involvement in the expanded and enhanced Domes also indicates a need to alter governance. As cited in this report, the Milwaukee Zoo is an example of a once largely government operated facility transforming to a public-private partnership. The outcomes have included private sector investment in facilities, private sector gifts and grants and the creation of Milwaukee's largest and most well attended visitor attraction. If governance does change the format and timing of the change will depend on the vision

for the future of the Domes; the commitment of Milwaukee County can make to achieve that future; and the partners and community that join in achieving the vision for the Domes.

Data in **Figure II-2a** and **II-2b** summarize a series of strategies and opportunities to address the governance and operating requirements of Domes in Options 4 through 6. Under Options 1, 2 and 3, it is anticipated that there would be no changes in governance and minimal changes in operations given current circumstances.

Figure II-2a
Governance and Operation Improvement Options
Governance

#		Option 1 "Do Nothing"	Option 2 Demolish Domes	Option 3 Address Deferred Maintenance	Options that bundle Opportunities to create a vision for the future				
					Option 4 Targeted Investments	Option 5A EcoDome Destination Attraction	Option 5B Hybrid Redevelopment EcoDome Destination Attraction	Option 6A Adventure Dome Destination Attraction	Option 6B Hybrid Redevelopment Adventure Dome Destination Attraction
	Governance								
1	Opportunities for Enhanced Governance, Partnerships and Operations of the Domes Facilities								
2	Consider: Operating Partnership with responsibilities split between County and a Not-For-Profit Organization								
3	Consider: County ownership / not-for profit operating organization governance model								
4	Consider: changing Domes location on County Org. Chart for more direct reporting to leadership								
5	Attract Private Sector Vendors for select activities								
6	Enhance role of Friends Group								
7	Attract funding partners and grants and gifts for ongoing activities								

Figure II-2b
Governance and Operation Improvement Options
Operations

#		Option 1 "Do Nothing"	Option 2 Demolish Domes	Options that bundle Opportunities to create a vision for the future					
				Option 3 Address Deferred Maintenance	Option 4 Targeted Investments	Option 5A EcoDome Destination Attraction	Option 5B Hybrid Redevelopment EcoDome Destination Attraction	Option 5B Adventure Dome Destination Attraction	Option 6B Hybrid Redevelopment Adventure Dome Destination Attraction
	Operations								
8	Increase Staff to meet needs of the Option								
9	Increase Operating Budgets to meet needs of the Option								
10	Increase fundraising activities and grants								
11	Enhance marketing and outreach								
12	Expand operating hours to include some evenings & special events								
13	Increase concerts and events								
14	Increase community engagement and outreach								
15	Add "summer in the park" activities and programs								
16	Increase STEM and STEAM education offerings for schools								
17	Add new conservation, botanical and gardening educational programs for general public								
18	Create research and conservation partnerships with for-profit companies and not-for-profit organizations								
19	Education / conservation partnerships with universities								

Source: HGA and ConsultEcon, Inc.

Potential Outcomes of the Options for the Future of the Domes

The process of developing a vision for the future of the Mitchell Park Horticultural Conservatory is informed not only by the range of physical repairs and improvements made; but also, by the extent that investments are made in the organization and governance is changed to improve the capacity of the Domes to optimize the use of facilities, involvement of community organizations, educational institutions, business, philanthropic foundations and individuals and the public at large. Data in **Figures II-3a, II-3b,** and **II-3c** summarizes some of the potential outcomes of the options for the future of the Domes. It is important to note that the options include both capital investments and changes in governance and improvements in operations. The Summaries of potential outcomes include conceptual assumptions of attendance potential. Actual attendance projections would be based on specific plans that will be made in Phase III. At this early phase of planning there is no way to know the eventual facility plans, capital structure or operating plan or governance. However, for the purposes of Phase I, these Scenarios assume that in all Options, Milwaukee County retains a role in facility operations. In Options 4 and 5, it is assumed there are public-private partnerships in facilities development and in operations.

Figure II-3a
Potential Outcomes of Options for Domes Facilities

#	Evaluation of Outcome of Options for Domes' Future	Option 1 "Do Nothing"	Option 2 Demolish Domes	Option 3 Address Deferred Maintenance	Options that bundle Opportunities to create a vision for the future: Option 4 Targeted Investments	Option 5A EcoDome Destination Attraction	Option 5B Hybrid Redevelopment EcoDome Destination Attraction	Option 6A Adventure Dome Destination Attraction	Option 6B Hybrid Redevelopment Adventure Dome Destination Attraction
	Facilities								
1	**Domes deferred maintenance addressed**	Not Addressed - 5 year time horizon to address deferred maintenance	NA	Yes	Yes	Yes	Yes For 2 Domes, Show Dome replaced	Yes	Yes For 2 Domes, Show Dome replaced
2	**Expected lifecycle of investments**	Dome closures likely to occur without addressing deferred maintenance	NA	Domes: 25+ Year lifespan; Other structures 50 years	Domes: 25+ Year lifespan; Other structures 50 years	Domes: 25+ Year lifespan; Other structures 50 years	Domes: 25+ Year lifespan; Other structures 50 years	Domes: 25+ Year lifespan; Other structures 50 years	Domes: 25+ Year lifespan; Other structures 50 years
3	**Sustains botanical collections**	Deteriorating conditions for plants	Relocate collection, likely with substantial damage to and loss of specimens	Improved plant conditions	Improved plant conditions	Improved plant conditions	Improved plant conditions	Improved plant conditions	Improved plant conditions
4	**Bonding Implications**	NA	NA	Uncertain	New / rehab building elements with long lifespan fit with bond financing approach	25+ year lifespan of Showdome challenges bond financing of major investment as EcoDome	New construction / 50 year lifespan of new structure enhances bond financing	25+ year lifespan of Showdome challenges bond financing of major investment as Adventure Dome	New construction / 50 year lifespan of new structure enhances bond financing
5	**Renewed Vision that Supports Conservatory/Educational Mission**	No	Loss of current Conservation and Educational Benefits	Allows for continuation of current Domes conservation and education activities	Increased opportunities for Gifts and Grants	Major opportunity to enhance collections	Major opportunity to enhance collections	Increases partnering, Gifts and Grants	Increases partnering, Gifts and Grants
6	**Organization and Governance Refinement for sustainable future**	NA	NA	Unlikely	Creates opportunities for new partnerships	Likely needs Operating Partnership with Not-For-Profit Organization	Likely needs Operating Partnership with Not-For-Profit Organization	Likely needs Operating Partnership with Not-For-Profit Organization	Likely needs Operating Partnership with Not-For-Profit Organization

Figure II-3a (continued)
Potential Outcomes of Options for Domes
Facilities

#	Evaluation of Outcome of Options for Domes' Future	Option 1 "Do Nothing"	Option 2 Demolish Domes	Option 3 Address Deferred Maintenance	Options that bundle Opportunities to create a vision for the future: Option 4 Targeted Investments	Option 5A EcoDome Destination Attraction	Option 5B Hybrid Redevelopment EcoDome Destination Attraction	Option 6A Adventure Dome Destination Attraction	Option 6B Hybrid Redevelopment Adventure Dome Destination Attraction
	Facilities								
7	**Potential for Partner & Outside Investment**	NA	NA	Unlikely	Possible	Required	Required	Required	Required
8	**Flexibility to adapt to new opportunities for facility use**	No	NA	No	Some can be included in improvements program	Designed to meet community and tourism needs	Designed to meet community and tourism needs	Designed to meet community and tourism needs	Designed to meet community and tourism needs
9	**Enhanced Visitor Experience and dwell time growth**	No	NA	Minimal	Moderate	Destination experience and much longer attendee time on site	Destination experience and much longer attendee time on site	Destination experience and much longer attendee time on site	Destination experience and much longer attendee time on site
10	**Attendance Impacts**	Attendance declines as conditions worsen	Lose 200,000+ Current Attendances	Minimal	Target 250,000+ Attendances	Target 400,000+ Attendances	Target 400,000+ Attendances	Target 400,000+ Attendances	Target 400,000+ Attendances
11	**Extends use as 12 month attraction/venue**	No	NA	No	Minimal	Yes	Yes	Yes	Yes
12	**Earned Revenue Growth**	Likely Decline in Revenue	Lose Current Earned Revenue	Minimal or no increase in earned revenue	Increased revenues help support increases in staff and education	Substantial Increases in tickets, auxiliary rev. contributions and grants	Substantial Increases in tickets, auxiliary rev. contributions and grants	Substantial Increases in tickets, auxiliary rev. contributions and grants	Substantial Increases in tickets, auxiliary rev. contributions and grants

Figure II-3b
Potential Outcomes of Options for Domes Operations

#	Evaluation of Outcome of Options for Domes' Future	Option 1 "Do Nothing"	Option 2 Demolish Domes	Option 3 Address Deferred Maintenance	Options that bundle Opportunities to create a vision for the future: Option 4 Targeted Investments	Option 5A EcoDome Destination Attraction	Option 5B Hybrid Redevelopment EcoDome Destination Attraction	Option 6A Adventure Dome Destination Attraction	Option 6B Hybrid Redevelopment Adventure Dome Destination Attraction
	Operations								
13	**Staffing**	Current staffing levels may be unable to sustain current operations	NA	Current staffing levels may be unable to sustain current operations	Increased Staff to meet market opportunity and mission based on new facilities	Increased Staff to maximize market opportunity and mission based on new facilities	Increased Staff to maximize market opportunity and mission based on new facilities	Increased Staff to maximize market opportunity and mission based on new facilities	Increased Staff to maximize market opportunity and mission based on new facilities
14	**Operating Budgets**	Continue as is or decrease - inadequate for Domes operations	NA	Continue as is or increase slightly - inadequate for Domes operations	Increased budgets to meet market opportunity and mission based on new facilities	Increased Staff to maximize market opportunity and mission based on new facilities	Increased Staff to maximize market opportunity and mission based on new facilities	Increased Staff to maximize market opportunity and mission based on new facilities	Increased Staff to maximize market opportunity and mission based on new facilities
15	**Marketing**	Continued limited marketing	NA	Continued limited marketing	Increase Marketing to grow attendance, earned revenues and econ impacts	Local and regional marketing to grow attendance, earned revenues and econ impacts	Local and regional marketing to grow attendance, earned revenues and econ impacts	Local and regional marketing to grow attendance, earned revenues and econ impacts	Local and regional marketing to grow attendance, earned revenues and econ impacts
16	**Education and public programming**	Current staffing levels may be unable to sustain education and public programming	NA	Does not create needed spaces for education and programming	Creates spaces for education and programming plus increased earned revenues for funding	Creates spaces for education and programming plus substantial earned revenues for funding	Creates spaces for education and programming plus substantial earned revenues for funding	Creates spaces for education and programming plus substantial earned revenues for funding	Creates spaces for education and programming plus substantial earned revenues for funding
17	**Net operating results Loss / Neutral / Gain?**	Loss. May also require continuous expensive testing of domes structures	NA	Loss: likely continued slow decline in earned revenues as functional shortcomings not addressed; lack of market appeal	Improved Ratio of revenue to costs	Higher earned and contributed revenues support increased op. costs. Likely can cap County contribution to agreed amount	Higher earned and contributed revenues support increased op. costs. Likely can cap County contribution to agreed amount	Higher earned and contributed revenues support increased op. costs. Likely can cap County contribution to agreed amount	Higher earned and contributed revenues support increased op. costs. Likely can cap County contribution to agreed amount

Source: HGA and ConsultEcon, Inc.

Figure II-3c
Potential Outcomes of Options for Domes
Community Impacts

					Options that bundle Opportunities to create a vision for the future				
#	Evaluation of Outcome of Options for Domes' Future	Option 1 "Do Nothing"	Option 2 Demolish Domes	Option 3 Address Deferred Maintenance	Option 4 Targeted Investments	Option 5A EcoDome Destination Attraction	Option 5B Hybrid Redevelopment EcoDome Destination Attraction	Option 6A Adventure Dome Destination Attraction	Option 6B Hybrid Redevelopment Adventure Dome Destination Attraction
	Community Impacts								
18	**Responsive to needs of both local community and regional visitors**	Limited	Loss of community asset and tourism infrastructure	Continues current levels of community and tourism benefits	Increases from current levels of community and tourism benefits	Major benefits for community and tourism	Major benefits for community and tourism	Major benefits for community and tourism	Major benefits for community and tourism
19	**Education and conservation benefits**	Degraded education benefits over time	Loss of tourism draw - negative economic impacts	Education and conservation benefits at current levels	Education and conservation benefits at increased levels	Transformative education and conservation benefits	Transformative education and conservation benefits	Transformative education and conservation benefits	Transformative education and conservation benefits
20	**Social and Community Development**	Degraded community benefits over time	Loss of current community benefits, iconic symbol and community pride of place	Social and community benefits at current levels	Social and community benefits at increased levels	Transformative social and community benefits.	Transformative social and community benefits.	Transformative social and community benefits.	Transformative social and community benefits.
21	**Impacts on Boerner Gardens**	No current impacts.	Decreases public exposure to botanical topics. Opportunity for a replacement facility to house the Domes collections at Boehner Gardens	No current impacts.	Increases public exposure to botanical topics. May increase interest in visiting a horticultural facility year-round; thus improving Boehner Garden's revenue potential.	Increases public exposure to botanical topics. May increase interest in visiting a horticultural facility year-round; thus improving Boehner Garden's revenue potential. Note, if extensive outdoor gardens are included then There may be substitution of visits to Domes over Boehner Gardens.	Increases public exposure to botanical topics. May increase interest in visiting a horticultural facility year-round; thus improving Boehner Garden's revenue potential. Note, if extensive outdoor gardens are included then There may be substitution of visits to Domes over Boehner Gardens.	Increases public exposure to botanical topics. May increase interest in visiting a horticultural facility year-round; thus improving Boehner Garden's revenue potential.	Increases public exposure to botanical topics. May increase interest in visiting a horticultural facility year-round; thus improving Boehner Garden's revenue potential.
22	**Economic Impacts**	Degraded tourism draw - negative economic impacts	Loss of tourism draw - negative economic impacts	Tourism draw likely to diminish over time	Moderate increase as tourism draw	Major increase in economic benefits and job creation	Major increase in economic benefits and job creation	Major increase in economic benefits and job creation	Major increase in economic benefits and job creation
23	**Summary**	Continued need for partial closures, expenditures for inspections and degraded value to visitors and community. Issue of Domes cannot be deferred endlessly	Substantial negative impacts to education, conservation and tourism economy. Loss of nationally important structures. Loss of a part of Milwaukee identity	Saves current level of domes benefits and the historic structures. Current sub-standard operations continues due to inadequate facilities / earned rev. Loss of opportunity to transform Domes to major asset	Saves historic structures / moderately increases community benefits. Improves operations and revenue generation. Potential for increased private sector involvement. Does not transform Domes to major asset	Transformative in community benefits, education, conservation, economic impacts. Saves the historic structures. Requires private sector involvement. Transforms Domes to major Milwaukee asset	Transformative in community benefits, education, conservation, economic impacts. Saves most of historic structures. Requires private sector involvement. Transforms Domes to major Milwaukee asset	Transformative in community benefits, education, conservation, economic impacts. Saves the historic structures. Requires private sector involvement. Transforms Domes to major Milwaukee asset	Transformative in community benefits, education, conservation, economic impacts. Saves most of historic structures. Requires private sector involvement. Transforms Domes to major Milwaukee asset

Source: HGA and ConsultEcon, Inc.

Criteria for Success

Following are criteria that are applicable to existing, expanding and new educational, cultural and nature-based facilities:

- An excellent location and site – that is easily accessible and visible.
- Strong community support.
- Serving the needs and interests of both resident and visitor markets.
- A critical mass of attraction elements = sufficient content and high-quality visitor experiences to attract a length of stay of 1 to 3 hours.
- Dynamic/changing programs and exhibits = creates repeat visit opportunities.
- Content that appeals to a broad audience mix.
- Experiences that offer opportunities to have fun and learn + spend (earned revenue opportunities).
- Has a strong cause-related component to its mission (a focus/emphasis/strength that resonates with visitors and donors).
- An established and growing endowment fund.
- A program of reinvestment in all areas of facilities and operations – facilities, programs, personnel operating budgets, marketing and in creating informal and formal partnerships with a wide variety of Milwaukee institutions and groups.

Currently, the Domes, excepting its site and the unique Domes structures does not fulfill these criteria. However, The Domes has an opportunity to do so with significant investment in facilities, organization and with changes in governance. These Criteria for Success should be used in evaluating options for the future, and specifically the following evaluation criteria should be considered.

Illustrative Financial Analyses

As part of the preliminary review of options for the future of the Domes, Illustrative Financial Analyses have been prepared to inform the evaluation process about possible financial and operating considerations. At this early phase of planning there is no way to know the eventual facility plans, capital structure or operating plan or governance. However, for the purposes of Phase I, these Scenarios assume that in all Options, Milwaukee County retains a role in facility operations. In Options 4 and 5, it is assumed there are public-private partnerships in facilities development and in operations. These analyses are presented in **Figure II-4** below.

The analyses indicate that it is possible that initial investment in the Domes plus ongoing support by the County for Domes operations would require increasing the County's financial commitment to finance the needed deferred maintenance and capital improvements. It is also possible that a higher level of annual County financial contribution to operations could occur depending on future governance, private sector involvement and contributions and the actual facility that results from future capital development. However, the outcomes of County and private sector investment in initial capital cost and ongoing operations could be substantial in attendance, earned revenues and the related benefits of education, conservation and economic development.

These illustrative financial analyses must be reviewed with the understanding that the Options they represent are conceptual and do not represent physical plans, capital cost estimates, nor operating plans and no investigations have begun of potential public private partnerships. Therefore, they are only illustrative to inform further public discussion in Phase II, and as a point of departure for future more detailed studies. No representation can be made that any of the results of the illustrative Financial Analyses would be achieved.

Figure II-4
Illustrative Financial Analyses

Part 1 - Operating Implications

	Options 1 / 2	Option 3	Option 4	Options 5 / 6	
	Discontinue Current Domes	**Address Deferred Maintenance**	**Add Targeted Investments**	**Invest in Major Attraction**	**Notes**
Revenues					
Factors					At this early phase of planning there is no way to know the eventual facility plans, capital structure or operating plan or governance. However, for the purposes of Phase I, these Scenarios assume that in all Options, Milwaukee County retains a role in facility operations. In Options 4 and 5, it is assumed there are public-private partnerships in facilities development and in operations.
Percent Increase in Total Attendance		Current Baseline	108%	233%	These are conceptual ConsultEcon assumptions of attendance potential. As the planning for the Domes proceeds, attendance potential may be affected by the specifics of the implemented Option.
Paid Admissions	n/a	120,000	166,667	266,667	
Other Admissions		60,000	83,333	133,333	Assumed at the same Ratio to total attendance as current Domes.
Total Admissions		**180,000**	**250,000**	**400,000**	
Percent Increase Avg. Admission		Current Baseline	25%	75%	Initial ConsultEcon assumption based on current Domes pricing and the assumed improvements.
Per Capita Admission Rate	n/a	$6.25	$7.81	$10.94	
Percent Increase Avg. Net Rentals Concessions			100%	150%	Initial ConsultEcon assumption based on current earned revenue of Domes and the assumed improvements.
Per Capita Net Rentals Concessions / Other		$1.03	$2.06	$2.58	
Earned Revenue Potential By Scenario					
Admission and Ticket Sales	n/a	$750,000	$1,302,000	$2,917,000	Based on ticketed attendees only.
Net Rentals / Concessions / Other	n/a	$123,000	$515,000	$1,030,000	Increase in Net Rentals Concessions / Other for future scenarios based on total attendance
Total Earned Potential Revenue by Scenario		**$873,000**	**$1,817,000**	**$3,947,000**	
Partnership Revenues As a percent of Earned Rev.		$0	10%	20%	Preliminary assumption based on the experience of other public-private partnerships nationally. Each community provides different levels of support. Future research and analysis can give an indication of what is possible in Milwaukee.
Assumed Partnership / Fundraising Revenues		$0	$181,700	$789,400	
Friends of the Domes	n/a	TBD	TBD	TBD	Friends of Domes activities assumed to increase in Ratio to Earned Revenues, indicating substantially increased activity in Options 4, 5 and 6.
Total Revenues in Scenarios	**n/a**	**$873,000**	**$1,998,700**	**$4,736,400**	
Operating Expenses					
Assumed Operating Expenses	n/a	$1,256,500	$2,513,000	$3,770,000	
Routine maintenance		$110,000	$220,000	$330,000	Preliminary ConsultEcon assumptions based on scale of improvements. Actual operating cost projections would be based on specific plans that will be made in Phase III.
Average Increase in Operating			100%	200%	
Netting maintenance	n/a				
Annual Operations	**n/a**	**$1,366,500**	**$2,733,001**	**$4,100,002**	
Net Revenue Before Debt Service		-$493,500	-$734,301	$636,398	Derived from assumptions above
Debt Service	n/a	n/a	$1,104,000	$2,207,000	Based on assumptions from Milwaukee County
TOTAL	**n/a**	**$1,366,500**	**$3,837,000**	**$6,307,000**	
Operating Tax Levy for Operations	**-$493,500**	**$493,500**	**$1,838,300**	**$1,570,600**	Operating Tax levy indicates the amount of total annual funds Milwaukee County would allocate to the Domes under these scenarios. Amounts in excess of the current estimated County allocation of $493,500 indicate a need for increased County allocations, negative amounts indicate a decrease in allocations. All assumptions used to derive these amounts are subject to refinement based on actual project descriptions and future outreach to community partners and private sector interests to inform the extent of the public-private partnership opportunity.
Does not include Capital Costs					

NOTES ON ALL OPTIONS

1/ These Phase I preliminary descriptions of future directions for the Domes are meant to illustrate the kinds of facilities and the activities that could take place at the Domes, as well possible associated capital and operating costs. They DO NOT represent detailed facility plans, organization or governance planning or cost estimating. Those will occur in the future when the basic direction is chosen and more advanced planning and design occur.

2/ Cash costs are translated into possible increases in the property tax levy or the Vehicle Registration fee, because these are the two funding options available to Milwaukee County. These are Milwaukee County estimates.

3/ Milwaukee County has indicated that it might be able to finance some investments through borrowing, but ultimately such debt would need to be repaid through County taxes or fees.

4/ Estimates of useful life of existing Domes are subject to future engineering analyses.

Sources: Milwaukee County, HGA and ConsultEcon, Inc.

Figure II-4 (continued)
Illustrative Financial Analyses

Part 2 - Financial Implications

Key Elements	Options 1 / 2 Discontinue Current Domes	Option 3 Address Deferred Maintenance	Option 4 Add Targeted Investments	Options 5 / 6 Invest in Major Attraction	Notes
Summary of project scope	Remove the Domes, either immediately or within ~5 years, and restore site	Safety & code compliance, leaking roof, structural repairs	Safety & code compliance, leaking roof, structural repairs	Safety & code compliance, leaking roof, structural repairs	Descriptions of the options and their implications are included in the full report
Features and sub-options			Classroom space, improved parking, retail, food, guest services	Eco or Adventure Facility created within Existing Domes or Combination Existing / New Bldg.	At this early phase of planning there is no way to know the eventual facility plans, capital structure or operating plan or governance. However, for the purposes of Phase I, these Scenarios assume that in all Options, Milwaukee County retains a role in facility operations. In Options 4 and 5, it is assumed there are public-private partnerships in facilities development and in operations.
Assumed Approximate Useful Life	n/a	~25 years*	~25 years for existing Domes / 50 years for any new construction	~25 years for existing Domes* / 50 years for any new construction	Preliminary estimates by Milwaukee County. Future engineering studies and tests will verify / adjust these estimates
High-Level Assumptions of Investment Costs					
Removal & Site Repair	$12,000,000				
Repairs & Accessibility		$25,000,000	$25,000,000	$25,000,000	
Targeted Investments			$20,000,000	$20,000,000	Conceptual allowances for future capital costs prepared by HGA. These will be refined based on specific plans that will be made in Phase III.
Invest within Existing Domes OR Existing / New Combo Facility				$40,000,000	
TOTAL	**$12,000,000**	**$25,000,000**	**$45,000,000**	**$85,000,000**	
Financing Options					These financing scenarios could be refined later based on further internal review by County and research into the capacity for private sector involvement.
County Cash Financing	$12,000,000	$25,000,000	$25,000,000	$25,000,000	Milwaukee County Assumption
County Borrowing	N	N	$15,000,000	$30,000,000	Milwaukee County and ConsultEcon Assumption
(Annual Debt Service - 4% over 20 years)	N	N	$1,104,000	$2,207,000	Milwaukee County Assumption
Major Gifts	N	N	??? $5 million ???	??? $30 million ???	Milwaukee County and ConsultEcon Assumption
Financing Impacts					
Alternative Financing Approaches					Financing Impacts are based on Milwaukee County Analyses appropriate for the assumptions of capital investment needed.
County Cash Expenses					
Property Tax Alternative	$15/year ($150,000 home) for 2 years	$32/year ($150,000 home) for 2 years	$32/year ($150,000 home) for 2 years	$32/year ($150,000 home) for 2 years	These estimates of the cost to Milwaukee County property owners of a possible financing mechanism for the improvements to the Domes under the Options was prepared by Milwaukee County to inform the decision-making process. They are illustrative only.
VRF Alternative *	$11/vehicle/year for 2 years	$16/vehicle/year for 3 years	$16/vehicle/year for 3 years	$16/vehicle/year for 3 years	
County Borrowing Expenses					
Debt Service - Prop Tax Alt. (Assumes $150,000 home)	n/a	n/a	$2.73/year for 20 years	$5.39/year for 20 years	These estimates of the cost to Milwaukee County property owners of a possible financing mechanism for the improvements to the Domes under the Options were prepared by Milwaukee County to inform the decision-making process. They are illustrative only.

NOTES ON ALL OPTIONS

1/ These Phase I preliminary descriptions of future directions for the Domes are meant to illustrate the kinds of facilities and the activities that could take place at the Domes, as well possible associated capital and operating costs. They DO NOT represent detailed facility plans, organization or governance planning or cost estimating. Those will occur in the future when the basic direction is chosen and more advanced planning and design occur.

2/ Cash costs are translated into possible increases in the property tax levy or the Vehicle Registration fee, because these are the two funding options available to Milwaukee County. These are Milwaukee County estimates.

3/ Milwaukee County has indicated that it might be able to finance some investments through borrowing, but ultimately such debt would need to be repaid through County taxes or fees.

4/ Estimates of useful life of existing Domes are subject to future engineering analyses.

* * VRF Can only be used for transportation expenses. Assumes VRF increment to free property tax revenues for purposes of investment in Domes.

Evaluation Criteria

Following are some of the criteria that are expected to be used to evaluate options for the future of the Domes.

- Visitor/community interest and demand
- Cost Benefit evaluation
- Supports mission and vision
- Sustainability (over time)
- Complements other cultural venues (not competes)
- Potential for partner investment[1]

Summary

Broadly based options for the future of the Domes have been prepared in this planning process to reflect a full range of options for the future along with the implications of these options. The options range from Do-Nothing and Demolishing the Domes to investing proactively in the Domes to create a much more valuable and impactful asset for the citizens of the County, visitors to the County, and for its economic development. Botanical gardens and indoor conservatories do not have a record of being self-sustaining from internally earned revenues. The Options included in the report for the future of the Domes specify that a greater level of private sector involvement and participation will be necessary to change the current lack of reinvestment in facilities and underfunding of operations which characterizes recent year and current operations by the County. While only conceptual options can be defined at this phase of the process there are indications of the implications of broadly defined directions that the County may choose to direct subsequent investigations and deliberations. The favored Options will be the

[1] It should be noted that the City of Milwaukee has deed restrictions on the Mitchell Park's land and these would need to be addressed to ensure that a private not-for-profit enterprise could participate in a public – private partnership operation of the site.

basis for the much more detailed design, cost estimating, operating and governance planning needed to inform a determination to implement a plan for the future of the Domes.

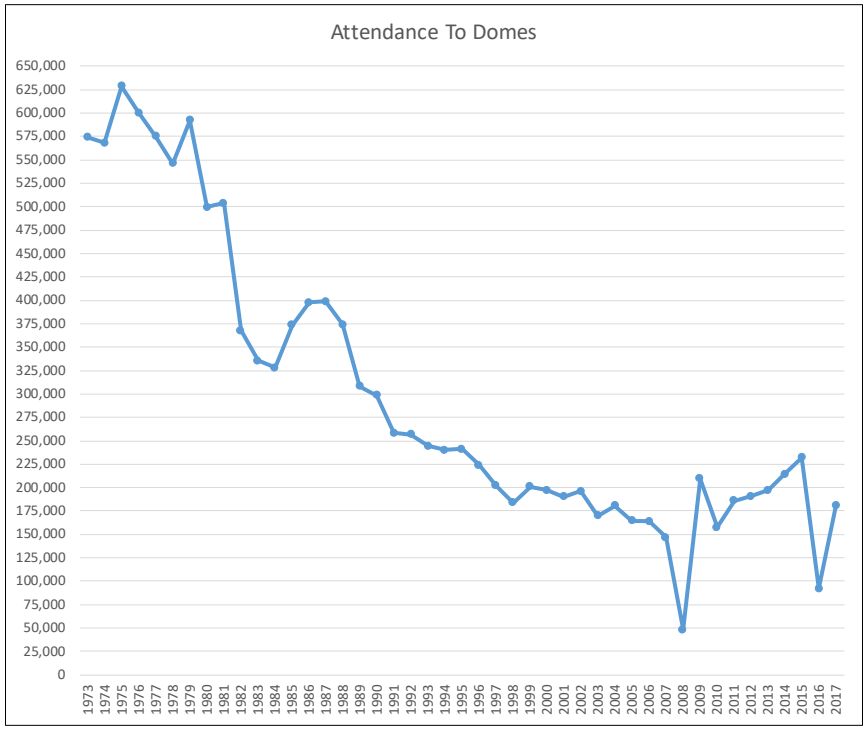
SECTION III
MITCHELL PARK DOMES OPERATIONS

This report section summarizes attendance and operating data provided by Mitchell Park Conservatory (the Domes) and Milwaukee County Parks. These data provide a baseline to evaluate future options and opportunities; and, to identify aspects of the facilities and areas of the operations in need of reinforcement or change.

Attendance

Over the past 45 years, annual attendance initially declined steadily from over 500,000 visits to about 200,000 visits by 2000. Subsequently attendance has been in that range excepting when the Domes were closed for major repairs. In recent years based on substantial programming and events, attendance increased. However, operationally, the staff and budgets and marketing of the Domes are not adequate to sustain this higher attendance level and indeed in 2017, attendance declined to 180,000. Without improvements in facilities and operations, it is anticipated that the Domes will continue to have similar or declining attendance levels. Data in **Figure III-1** and **Figure III-2** show attendance trends.

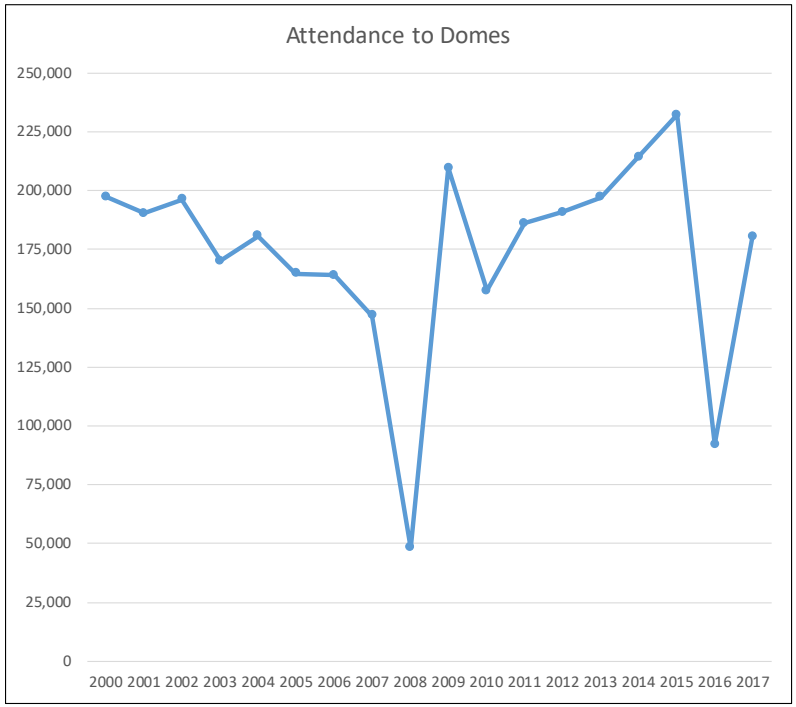
Figure III-1
Attendance Trend Mitchell Park Domes 1973-2017



Source: Mitchell Park Horticultural Conservatory and ConsultEcon, Inc.

Note: These data include paid and free attendance. 2008 and 2016 attendance were low due to closure of Domes for repairs during a major portion of the year.

Figure III-2
Attendance Trend Mitchell Park Domes 2000-2017



Source: Mitchell Park Horticultural Conservatory and ConsultEcon, Inc.

Note: Domes Attendance does not include Farmers Market attendees. There was a total of 94,000 Farmers Market attendees between 2014 and 2017 of whom 37,000 were in 2017. These people are on-site but don't enter the Domes). The Farmers market has been discontinued as of the date of this report.

Attendance Profile

Data in **Table III-1** profiles attendance to the Domes by type. Most visitors are ticketed; Domes attendance data indicate that less than 10 percent of Domes total attendance is on free days. School groups – paid or free make up about 6 percent of attendance. The facilities at the Domes and staffing shortfalls severely limit attendance by groups, particularly school groups. These are attendance types with substantial growth potential. Facility rentals also are severely limited by the facilities and by staff availability and operational budgets. Approximately 77% of attendees are revenue generating (paid ticketed plus members plus rental attendees). These ratios are within the typical range of educational and cultural attractions.

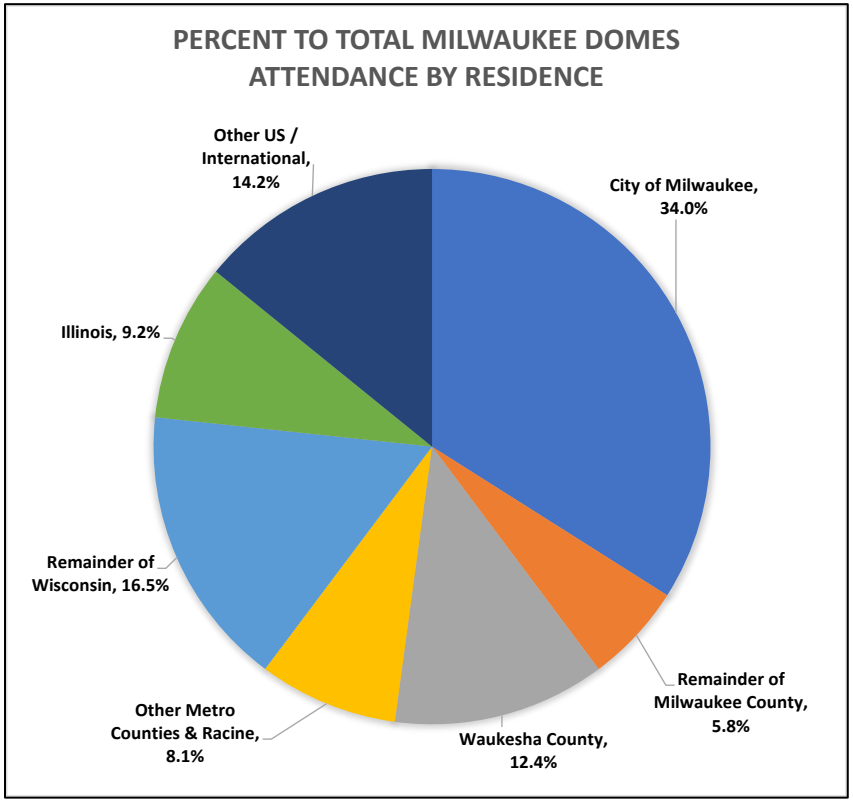
Data in **Figure III-3** shows visitor origin of attendees who provide their zip codes. Approximately 50 percent of these attendees are from Milwaukee County and 50% from outside of the County. (On free days -representing about 10 percent of all attendees - it is likely that the mix of County residents and non-County attendees is more heavily weighted to County residents). These data indicate that the Domes are bringing visitor spending into the County. While about 21 percent of non-County visitors are still "local" from the remainder of the Metro Area and Racine County, about 29 percent are from Illinois, other U.S. and International and the remainder of Wisconsin. Thus, the Domes can be characterized as both serving as an educational and quality of life asset for County residents and as an economic generator. By attracting new visitors and extending visitors stays from out-of-town, attractions such as the Domes are considered economic generators that bring new spending to a community which in turn, through the economic multiplier process generates further economic activity, jobs and taxes. If reinvestment in the Domes occurs, the community and economic benefits will increase.

Table III-1
Attendance by Type[2]

2017	Percent to Total	Notes
Paid Admission By Type		
Adult	45.1%	
Child	10.7%	
Milw. Co. Senior	3.2%	
Disabled	1.2%	
Student	6.1%	
SUBTOTAL	**66.2%**	Revenue Generating
Free Admission Breakdown		
Free Mon. Milw. Co. Adult	4.7%	
Free Mon. Milw. Co. Child	3.2%	
Free Mon. Milw. Co. Senior	1.1%	
Free Mon. Milw. Co. Disabled	0.4%	
Free Mon. Milw. Co. Student	0.2%	
Total Free Monday 9.5%	**9.5%**	
Free Child 5 & Under	10.7%	Accompanying Paid Admissions
Free Teacher (Ed Tour) + Bus Driver	0.1%	
Friend of Domes (Includes Events)	9.5%	Revenue Generating
Veteran	0.2%	
Other Free	0.3%	
Volunteer	0.3%	
1 Free Guest w/ Performer	0.001%	
Reciprocal Members	1.4%	
Rental Attendance (Free) + Annex	1.7%	Revenue Generating
SUBTOTAL	**33.8%**	
Total Attendance	**100.0%**	
Total Revenue Generating	**77.4%**	

Note: All attendees may make retail purchases
Source: Milwaukee Parks and ConsultEcon, Inc.

Figure III-3
Attendance by Visitor Origin – Ticketed Attendees



Note Data is for 2016 the most recent available data Note, this data is from a sample of attendees and represents the information on Paid Admissions and Free Child 5 & Under, typically over 75% of attendees.
Source: Mitchell Park Conservatory Domes and ConsultEcon, Inc.

[2] Note that Farmers Market attendees are not included in these attendance analyses.

Note that the Farmer's Market (which was operated as a facility rental) attendance has not been included in the overall Domes attendance pattern as these people do not go into the Domes themselves (or if they do go to the Domes, they are included in Domes attendance). However, the Farmers Market is an example of a use of the site that has brought many people to the site and served the community by providing nutritious food and tying people's food to agriculture. There was a total of 94,000 Farmers Market attendees between 2014 and 2017 of whom 37,000 were in 2017. The Farmers Market has been discontinued as of the date of this report. This is an example of the type of programming that would be appropriate in an enhanced Domes campus in the future.

Overview of Current Domes Governance and Operations

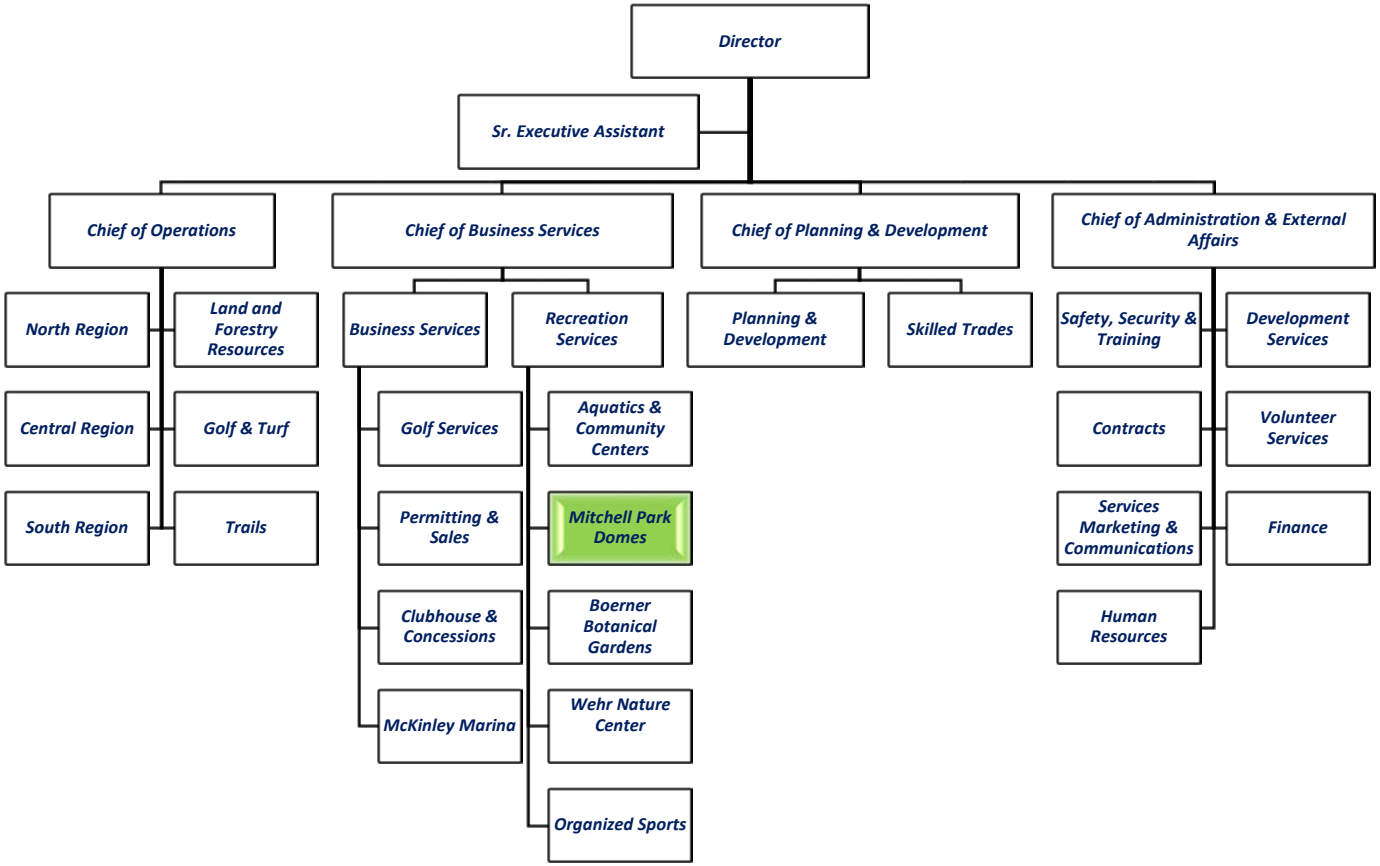
Following is a summary of current Domes governance and operations.

- **Governance –** The Domes are an asset of Milwaukee County and administered by Milwaukee County Parks. Data in **Figure III-4** provides an organization chart for Milwaukee County Parks. There are several administrative levels above the Domes in this County Department as well as the overall County government structure.
- **County Staffing -** Current Domes County Personnel is very limited for a facility of size and complexity of the Domes; and, given attendance of over 180,000 annually. Data in **Figure III-5** reflect staffing at the time of this study. Current staffing is much lower than historically. The staffing profile reflects the very tight staffing throughout the Milwaukee Parks system. Domes staffing includes Full Time and Personnel one Part-Time staffer the Special Events Coordinator who also serves as the weekend manager. The Domes part time seasonal staff ranges from 3-5 workers (fee booth and maintenance, and they are not represented on the chart. Friends of the Domes personnel and volunteers support County personnel.
- **County Revenues / Expenses -** As with staffing, the Domes operating budget is limited. Data in **Table III-2** provides Domes operating budget information for 2015 through 2017. These financial analyses isolate the Domes within the Overall County parks; they are a Budget View (if Domes were separate budget program area). An operating budget of $1,366,500 was provided by Milwaukee County for 2017, this represents con slightly higher 2015 budget is also provided for comparison. In 2017, internally generated funds of $873,300 were earned or donated to help defray

operating costs. These earned or donated revenues account for 64 percent of operating costs. Admissions account for about 86 percent of earned Revenues, Space Rental 8 percent, Contract Commissions 3 percent, with 3 percent in "Other" Revenue. The remainder of funds needed to operate is provided by Milwaukee County. It is important to note that these operating funds do not include major capital repairs. In addition to the County, Friends of the Domes provide support. Their operations are profiled later in the report.

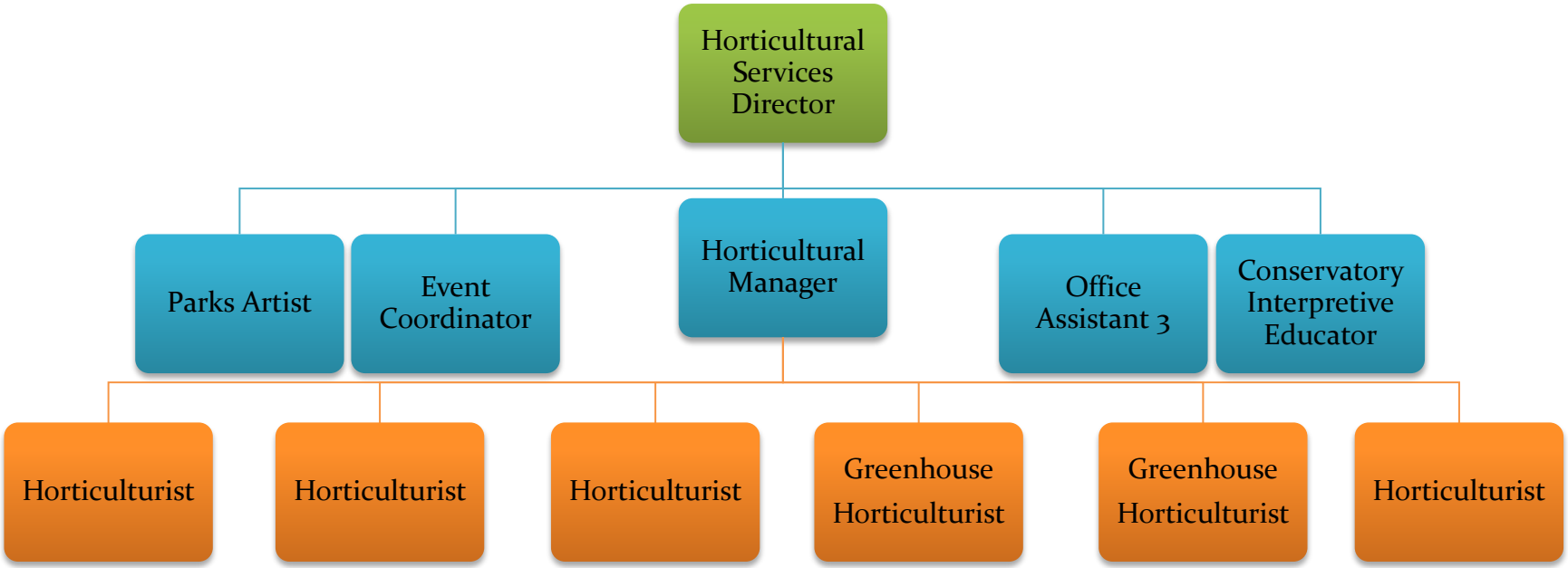
- **Capital Repairs, Maintenance and Reinvestment –** Over many decades, the Domes have reportedly not received adequate maintenance, repairs and reinvestment. Repairs such as electrical service to the Conservatory in 2016 have been made, but funds have been limited. This situation has led to some of the current problems related to water infiltration, HVAC problems etc. Other aspects of the current need to reinvest relate simply to the age of the facilities and the typical physical depreciation and functional obsolescence of facilities over fifty years old. The physical condition if the Domes contributes to operating costs, in particular to energy costs.

Figure III-4
Milwaukee County Parks Governance Chart



Source: Milwaukee County Parks

Figure III-5
Mitchell Park Horticultural Conservatory
Organizational Chart 2017



Source: Milwaukee County Parks

Table III-2
2011 Through 2017 County Operating Budget View for Domes

Domes Financials - Budget View (if Domes were separate budget program area)

	2011	2012	2013	2014	2015	2016	2017
Revenues							
Other Direct Revenue	$1,611,416	$817,100	$806,534	$741,686	$1,016,087	$342,308	$873,279
State & Federal Revenue							
Indirect Revenue							
Total Revenue	**$1,611,416**	**$817,100**	**$806,534**	**$741,686**	**$1,016,087**	**$342,308**	**$873,279**
Expenditures							
Personnel Services	$1,531,011	$734,724	$762,760	$748,408	$671,027	$806,640	$955,001
Commodities & Services	678,149	328,925	441,682	618,217	341,042	381,877	376,067
Debt & Depreciation							
Other Charges							
Capital Outlay	5,362	7,121	-	196,095	77,579	25,296	25,248
Cross Charges*	710,025	366,450	407,365	486,219	415,338	244,300	10,162
Total Expenditures	**$2,924,546**	**$1,437,219**	**$1,611,806**	**$2,048,939**	**$1,504,986**	**$1,458,114**	**$1,366,478**
Operating Subsidy/Tax Levy	**$1,313,130**	**$620,119**	**$805,272**	**$1,307,253**	**$488,899**	**$1,115,806**	**$493,199**

Note: The County's treatment of cross charges has changed over time. For years through 2015 all healthcare and pension costs for current and retired employees were allocated, along with other support charges. In 2016, healthcare and pension costs for only current employees were allocated. In 2017 all healthcare and pension costs for employees and retirees were centralized, not allocated. The only cross charges included for 2017 are for direct support from facilities, fleet and other services.

Source: PSB Dome Financial FAQs 2/2017 and updated by Milwaukee County Parks in June 2018

Programs at the Domes

The Milwaukee Domes have sponsored and operated several popular programs and have experimented with others in the past. Education is and has been one of the most important on-going programs of the Domes. Other programs that have been sponsored include but are not limited to: Music Under Glass, Ethnic festivals, Very Fairy Princess Day, Green Festival, and Steampunk Faire. In addition, there have been public serving facility rentals with Farmers Market a prime example. Following are profiles of several of these programs as examples of the benefits of the Domes, the challenges of operating them in the current Domes facility and the opportunity they may represent for the future of the Domes.

- **Education –** The Domes are an asset to Milwaukee Public Schools and other regional school systems as well as home schooled children. The Domes draws attendance from Milwaukee County as well from a wide geographic region based on its unique content, allowing for the opportunity to visit two distinct ecological zones. While in earlier years there had been about 6,000 paid student attendees, in 2017, over 11,000 school children were paid attendees. However, there is only one full time educator and there is a shortfall of classroom space. With more education staff and classroom space, there is an opportunity to substantially increase education attendance and educations outcomes. Data in **Table II-3** provides education attendee data
- **Music Programs –** A popular Domes sponsored program for several years, the music programs have since been discontinued. It was sponsored by a donor who underwrote costs. Once the donation ended the music programs ended as well. While earlier years of these programs averaged over 500 attendees per event. The subsequent reducing of expenditures for music performers reportedly reduced program quality and contributed to attendance decline. This program is representative of the market opportunity that exists at the Domes for various community-oriented programs and events; but also demonstrates that having the facilities to match the needs of an event and the operating capacity is also necessary for success. Data in **Table III-5** show Mitchell Park Domes Music Programs data.
- **Farmers Market –** This was a seasonal program that uses the Greenhouse Annex for Saturday markets. The Markets have brought in modest amounts of earned revenue to the Domes Budget as a facility rental, but they annually attracted over 30,000 visitors to the site and created substantial benefits to growers and consumers. Such opportunities for fresh food are particularly welcome in a central city location. Programs such as the Farmers Market can also be used to

promote Domes membership, attendance, education, and other programs as well as donations. The Farmers Market is considered to be aligned with the mission of the Domes. In early 2018 the Farmer's Market program was discontinued. Data in **Table III-4** shows income for the Farmer's Market during its period of operation. Some of this revenue went to the Parks Rangers for traffic control.

Table III-3
Mitchell Park Domes Education Classes

Year	2013	2014	2015	2016
Attendees	7,826	6,209	6,537	1,062
Revenue	$37,620	$30,482	$32,991	$5,546
Revenue Per Capita	$4.81	$4.91	$5.05	$5.22

Source: Mitchell Park Horticultural Conservatory and ConsultEcon, Inc.

Note: Data available as of time of report preparation.

Figure III-6
Mitchell Park Domes Education Classes

Source: Mitchell Park Domes

Table III-4
Mitchell Park Domes Music Programs

Year	2012-2013	2013-2014	2015	2016
Number of concerts	20	21	10	9
Attendance	13,413	11,133	4,962	2,321
Revenue	$55,695	$45,309	$20,199	$7,973
Attendance Per Concert	671	530	496	258
Revenue per Concert	$2,785	$2,158	$2,020	$886
Revenue Per Capita	$4.15	$4.07	$4.07	$3.44

Source: Mitchell Park Horticultural Conservatory and ConsultEcon, Inc.

Figure III-7
Mitchell Park Domes Music Programs

Source: Mitchell Park Domes

Table III-5
Mitchell Park Domes Farmers Market

Year	2013-2014	2014-2015	2015-2016	2016-2017
Number of Saturday Farmers Markets	25	24	23	22
Attendance	58,852	53,824	34,874	30,305
Revenue	$12,500	$12,000	$11,500	$12,000
Attendance Per Farmer Market	2,354	2,243	1,516	1,378
Revenue Per Farmer Market	$500	$500	$500	$600
Revenue per Attendee	$0.21	$0.22	$0.33	$0.40

Source: Mitchell Park Horticultural Conservatory and ConsultEcon, Inc.

Figure III-8
Mitchell Park Domes Farmers Market

Source: Mitchell Park Domes

Friends of the Domes Operations

Friends of the Domes provide support for Domes operations through organizing volunteer activities, operating the gift shop, using their proceeds and gifts to the Friends to fund special improvement projects and generally, to support and advocate for the Domes. Their diligent efforts have been essential to the quality experiences offered to visitors over the years and to the Domes staff. Because the Domes are a government operation, there are limits to the opportunities for the Friends to bring their public support and gifts and grants that similar "friends" groups often have when the organization they support is fully or largely in the not-for-profit sector. Membership in Friends provides free admission and membership fees are used by Friends for their expenses and gifts to Domes. Their attendances and events are typically 7 percent of annual attendance. Ten percent of gift shop proceeds go directly to the Friends of the Domes account. Following is a summary of the characteristics of the Friends of the Domes organization.

- Mission: Carry on educational, cultural, recreational or scientific programs or activities for the benefit and support of the Domes located in Mitchell Park, Milwaukee County.
- Functions include fundraising, retail shop, event support, recruit, train and schedule volunteers in all aspects of operations.
- Revenues are derived from fundraising, memberships and retail sales.
- Friends have a small office at the Domes.
- Personnel – Includes Part-time and Volunteer staff
    - Executive Director
    - Gift Shop Financial Manager Coordinator
    - Gift Shop Manager/ Buyer
    - Resource Development
    - Volunteer Coordinator

- Operating expenditures focus on providing retail services, support for domes operations and providing funds for facility enhancements.

Data in **Table III-6** provides a summary of the most recently available Friends of the Domes budget.

Table III-6
2015 Friends Operations[3/]

2015 Revenues		Expenses	
Memberships	$ 55,000	Personnel	$ 106,000
Gifts & Donations, Investments	88,400	Payroll Taxes	8,900
Net Income From Fundraising	11,700	Administrative	57,900
Gross Retail Sales	153,400	Cost of Goods Sold	75,400
		Retail Shop	5,700
		Domes Facility Enhancements	42,100
Total	**$ 308,500**	**Total**	**$ 296,000**

Source: Friends of the Domes and ConsultEcon, Inc. Rounded to nearest $100

[3] Last year data was available.

Operations Summary - SWOT Analysis of Current Domes

Following is a summary of the perceived current Domes strengths, weaknesses, opportunities and threats (SWOT Analysis). This overview evaluation includes the input of the consulting team and the Domes Task Force as gained during the series of Task Force meetings.

Strengths

- Domes height and size
- Unique offerings of Tropical and Desert environments
- Landmark project
- Unique architectural statement
- New Greenhouses on site
- Park Setting
- On-Site Parking
- Visibility
- Regional accessibility
- Serves resident and visitor markets
- Dedicated staff and volunteers
- Well-loved locally
- An array of opportunities to enhance programs and facilities

Weaknesses

- Limited staffing
- Lack of financial resources - particularly related to Milwaukee County's limited funding for Parks
- Lack of funding for programs that fulfill Domes' mission and create new reasons to visit and relevance to the community
- Limited marketing of the Domes
- Poor layout of buildings for new revenues producing activities

- No outside gardens
- Limited parking for events
- Located in a non-touristic location

Opportunities

- Historic structures in historic park
- Unique architectural modernist structures that can be interpreted and built upon
- Proximity to connections to pedestrian trails
- Integrate outdoor gardens
- Cultural anchor for Southside neighborhoods
- Partnership and programming opportunities with other educational and attraction partners

Threats

- Domes physical obsolescence
- On-site Infrastructure issues
- Operational challenges
- Flexibility of use / reuse of Domes
- High maintenance costs
- High operating costs
- Perception of location public safety issues

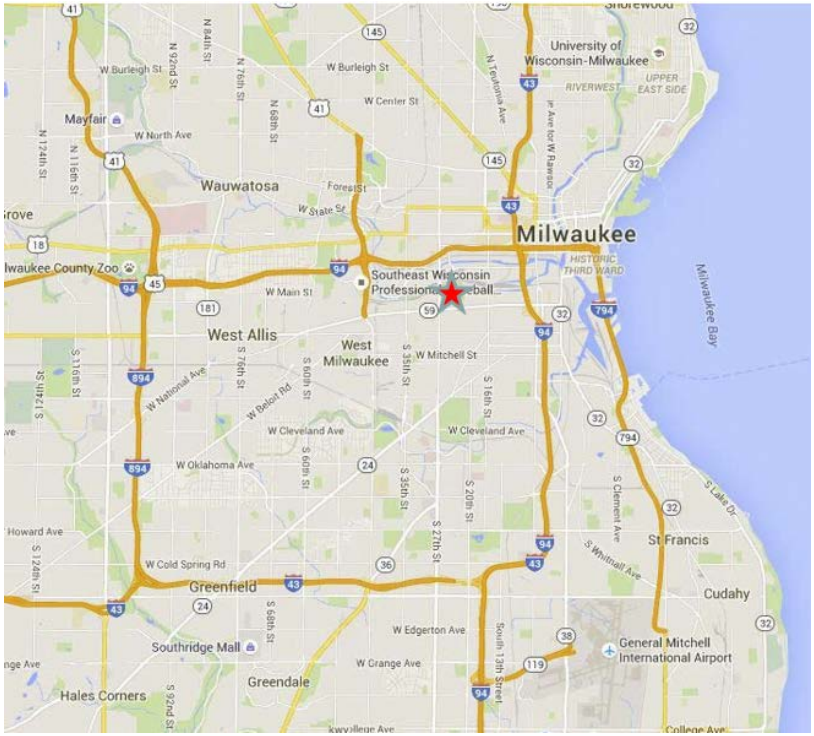
SECTION IV

LOCATION AND SITE CONTEXT

Regional Accessibility

The Domes at Mitchell Park have good regional accessibility being located near I-94 with highway exits nearby. **Figure IV-1** Shows the regional highway context and the location of the Domes.

Figure IV-1
Regional Map of Mitchell Park Domes

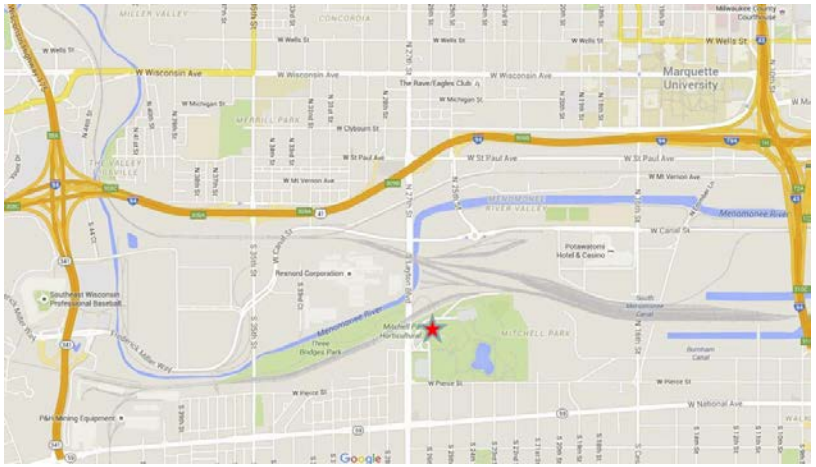


Source: Google Maps and ConsultEcon, Inc.

Local Accessibility and Location Context

The Domes at Mitchell are located at the northwest corner of Mitchell Park and have the rail corridor to the north and largely residential areas to the west and south. This is not a tourist-oriented location, and there is little supportive commercial or attractions infrastructure nearby. Mitchell Park itself is a large and local area serving park that is a good supportive use for the Domes. Currently the football stadium and other team sports facilities have little connection to the Domes; but they also do not compete for audience. **Figure IV-2** shows the location context of the Domes.

Figure IV-2
Location Context of Mitchell Park Domes



Source: Google Maps and ConsultEcon, Inc.

Experience of Local Attractions

Data in **Table IV-1** provides information regarding attendance patterns at local cultural and educational attractions. The Domes are the fifth most attended attraction in the area among the selected attractions. The ratio of attendance to metro area population (termed a capture rate) is 13.4 percent. Current Domes market capture rates (Attendance / Population) indicate substantial opportunity for attendance growth. Later in this report, that ratio will be compared to other benchmark conservatories nationally.

Data in **Table IV-2** provides information regarding ticket and membership pricing at local cultural and educational attractions. The Domes are less expensive of the attractions in the area. The Domes have affordable and comparatively low admission and membership prices. Later in this report, Domes prices will be compared to other benchmark conservatories nationally.

Data in **Table IV-3** provides information regarding staffing at local cultural and educational attractions. The Domes are clearly short-staffed given their size and attendance. With staffing at Domes well below industry standards – increased operating performance will require additional staff. Later in this report, Domes staffing will be compared to other benchmark conservatories nationally.

Data in **Table IV-4** provides information regarding Governance at local attractions. Later in this report, Domes governance will be compared to other benchmark conservatories nationally. Note that the Domes admission fee of $7 Adult and $6 Child Admission fee went up $1 for non-County residents at the beginning of 2018. Since many attendees are from Milwaukee County, for comparative purposes, the County resident pricing is shown in the chart.

Table IV-1
Selected Local Attractions Attendance and Capture Rates

Attraction	Location	Metro Pop	Attendance	Market Capture Rate
Milwaukee County Zoological Garden	Milwaukee, WI	1,572,482	1,300,000	82.7%
Milwaukee Public Museum	Milwaukee, WI	1,572,482	411,000	26.1%
Discovery World	Milwaukee, WI	1,572,482	400,000	25.4%
Milwaukee Art Museum	Milwaukee, WI	1,572,482	400,000	25.4%
Mitchell Park Conservatory	Milwaukee, WI	1,572,482	180,000	11.4%
Betty Brinn Children's Museum	Milwaukee, WI	1,572,482	160,000	10.2%
Kenosha Public Museum	Kenosha WI	1,572,482	130,151	8.3%
Boerner Botanical Gardens	Hales Corners, WI	1,572,482	100,000	6.4%
Racine Zoological Society	Racine, WI	1,572,482	100,000	6.4%
Old World Wisconsin	Eagle, WI	1,572,482	75,000	4.8%
Milwaukee County Historical Society Museum	Milwaukee, WI	1,572,482	65,000	4.1%
Racine Art Museum	Racine, WI	1,572,482	56,617	3.6%
Dinosaur Discovery Museum	Kenosha WI	1,572,482	42,699	2.7%
Lynden Sculpture Garden	Milwaukee, WI	1,572,482	14,000	0.9%
Average		**1,572,482**	**245,319**	**15.6%**
Weighted Average				**15.6%**
Median		**1,572,482**	**115,076**	**7.3%**

Source: Facilities listed, US Census, AAM Official Museum Directory, and ConsultEcon, Inc.
Note: Domes Attendance does not include 37,000 Farmers Market attendees; (who are on-site but don't enter the Domes).

Table IV-2
Selected Local Attractions Ticket Pricing

Attraction	Location	Attendance	Adult Admission	Child Admission	Household Membership
Discovery World	Milwaukee, WI	400,000	$19.00	$16.00	$115.00
Old World Wisconsin	Eagle, WI	75,000	$19.00	$10.00	NA
Milwaukee Public Museum	Milwaukee, WI	411,000	$18.00	$12.00	$115.00
Milwaukee Art Museum	Milwaukee, WI	400,000	$17.00	$0.00	$85.00
Milwaukee County Zoological Garden	Milwaukee, WI	1,300,000	$14.25	$11.25	$85.00
Lynden Sculpture Garden	Milwaukee, WI	14,000	$9.00	$7.00	$60.00
Betty Brinn Children's Museum	Milwaukee, WI	160,000	$8.00	$8.00	$75.00
Racine Zoological Society	Racine, WI	100,000	$8.00	$6.00	$60.00
Mitchell Park Conservatory	Milwaukee, WI	180,000	$7.00	$5.00	$50.00
Milwaukee County Historical Society Museum	Milwaukee, WI	65,000	$7.00	$0.00	$75.00
Boerner Botanical Gardens	Hales Corners, WI	100,000	$5.50	$3.50	$65.00
Racine Art Museum	Racine, WI	56,617	$5.00	$0.00	$75.00
Dinosaur Discovery Museum	Kenosha WI	42,699	$2.00	$2.00	$50.00
Kenosha Public Museum	Kenosha WI	130,151	$0.00	$0.00	$50.00
Average		**245,319**	**$9.91**	**$5.77**	**$73.85**
Median		**115,076**	**$8.00**	**$5.50**	**$75.00**

Source: Facilities listed, US Census, AAM Official Museum Directory, and ConsultEcon, Inc.

Note: Domes Attendance does not include 37,000 Farmers Market attendees; (who are on-site but don't enter the Domes).

Table IV-3
Selected Local Attractions Staffing and Attendees per FTE

			Staffing				
Attraction	**Location**	**Attendance**	**Full**	**Part**	**FTE**	**Volunteer**	**Attendees per FTE**
Mitchell Park Conservatory	Milwaukee, WI	180,000	9	8	13	NA	13,846
Betty Brinn Children's Museum	Milwaukee, WI	160,000	17	18	26	12	6,154
Discovery World	Milwaukee, WI	400,000	75	10	80	100	5,000
Kenosha Public Museum	Kenosha WI	130,151	16	35	33.5	153	3,885
Milwaukee County Zoological Garden	Milwaukee, WI	1,300,000	125	450	350	680	3,714
Milwaukee Public Museum	Milwaukee, WI	411,000	81	71	116.5	400	3,528
Racine Zoological Society	Racine, WI	100,000	22	15	29.5	100	3,390
Milwaukee Art Museum	Milwaukee, WI	400,000	119	83	160.5	150	2,492
Racine Art Museum	Racine, WI	56,617	15	34	32	150	1,769
Dinosaur Discovery Museum	Kenosha WI	42,699	16	33	32.5	25	1,314
Lynden Sculpture Garden	Milwaukee, WI	14,000	10	4	12	NA	1,167
Milwaukee County Historical Society Museum	Milwaukee, WI	65,000	0	2	1	30	NA
Boerner Botanical Gardens	Hales Corners, WI	100,000	NA	NA	NA	NA	NA
Old World Wisconsin	Eagle, WI	75,000	NA	NA	NA	NA	NA
Average		**290,406**	**46**	**69**	**81**	**197**	**4,205**
Weighted Average							**3,608**
Median		**160,000**	**17**	**33**	**33**	**150**	**3,528**

Note: Domes staff has decreased since the date of the data source used for this analysis

Source: Facilities listed, US Census, AAM Official Museum Directory, and ConsultEcon, Inc.

Note: Domes Attendance does not include 37,000 Farmers Market attendees; (who are on-site but don't enter the Domes).

NA indicates not available

Table IV-4
Governance at Selected Local Attractions

Attraction	Location	Governance
Mitchell Park Conservatory	Milwaukee, WI	County. Parent Institution: Milwaukee County. Friends of the Domes, Tax-exempt: 501(c)(3) is the support organization.
Betty Brinn Children's Museum	Milwaukee, WI	Private; nonprofit organization. Tax-exempt: 501(c)(3).
Discovery World	Milwaukee, WI	Nonprofit organization. Tax-exempt: 501(c)(3).
Milwaukee Art Museum	Milwaukee, WI	Board of trustees, nonprofit organization. Tax-exempt: 501(c)(3).
Milwaukee County Historical Society Museum	Milwaukee, WI	Nonprofit organization. Branch Museums: Kilbourntown House, Milwaukee; Lowell Damon House, Wauwatosa; Jeremiah Curtin House, Greendale; Trimborn Farm, Greendale. Tax-exempt: 501(c)(3).
Milwaukee County Zoological Garden	Milwaukee, WI	Parent Institution: Milwaukee County. Tax-exempt. Operated by: County with support from Zoological Society of Milwaukee a Tax-exempt: 501(c)(3).
Milwaukee Public Museum	Milwaukee, WI	Nonprofit. Tax-exempt: 501(c)(3).
Boerner Botanical Gardens	Hales Corners, WI	County. Parent Institution: Milwaukee County. Friends of the Boerner Botanical Gardens, Tax-exempt: 501(c)(3) is the support organization.
Old World Wisconsin	Eagle, WI	State. Parent Institution: The State Historical Society of Wisconsin, 816 State St., Madison, WI 53706. Tax-exempt.
Lynden Sculpture Garden	Milwaukee, WI	Parent Institution: Bradley Family Foundation. Tax-exempt.
Racine Art Museum	Racine, WI	Nonprofit organization. Parent Institution: The Racine Art Museum Assoc., Inc.; Branch Museum: Charles A. Wustum Museum of Fine Arts, 2519 Northwestern Ave., Racine, WI 53404-2299. Tel. 262-636-9177. Tax-exempt: 501(c)(3).
Racine Zoological Society	Racine, WI	Municipal. Parent Institution: Racine Zoological Society is the Tax-exempt operator.
Kenosha Public Museum	Kenosha WI	Parent Institution: City of Kenosha, Wisconsin. Subsidiary Institutions: Dinosaur Discovery Museum; Civil War Museum. Tax-exempt: 170(b)(1)(A).
Dinosaur Discovery Museum	Kenosha WI	City; nonprofit. Parent Institution: Kenosha Public Museums, Kenosha, WI. Tax-exempt: 170(b)(1)(A).

Source: Facilities listed, US Census, AAM Official Museum Directory, and ConsultEcon, Inc.

Location and Site Context Summary

The Domes are accessible and highly visible. They are local icons and important nationally for their unique and compelling architecture and the grand spaces inside. However, their lack of supportive spaces including classrooms, offices, appropriately sized and outfitted retail and food service space and other support and public spaces limits their effectiveness as public attractions. The deteriorating physical conditions have not been comprehensively addressed but only within the limited resources available. There is also a lack of associated gardens and additional public draws to enhance the visitor experience and the duration of a visit. These factors have limited attendance. Also limiting attendance and earned revenue potential is the barebones staff and marketing budgets. Friends of the Domes have contributed to the ongoing operations of the Domes and have fundraised for improvements to the facilities. However, the government owned and operated structure of the Domes limits the capacity for support of the Friends. The governance structure of the Domes has limited the ability and capacity to correct the deferred maintenance and to proactively augment the public offerings and the organization and operations of the Domes to allow them to achieve their potential.

While the Domes are not operating up to their potential as discussed above, the Domes have remained a popular attraction because of their unique design, beautiful arid and tropical biomes and changing exhibits. They remain among the highly attended attractions in Milwaukee and attract strong numbers of visitors from the local area as well as out-of-town tourists. As such, The Milwaukee Domes are a unique public asset in the Milwaukee area and indeed in the larger context of the State of Wisconsin and in Illinois and other areas that contribute substantially to Milwaukee tourism. There is considerable potential for attendance to the Domes to increase substantially depending on the mix of physical improvements, operational improvements and governance changes. Without such improvements, attendance is likely to stagnate.

SECTION V

MARKET CONTEXT

The following section provides a review of the resident market and tourism market context that the Domes operate in.

This section includes:

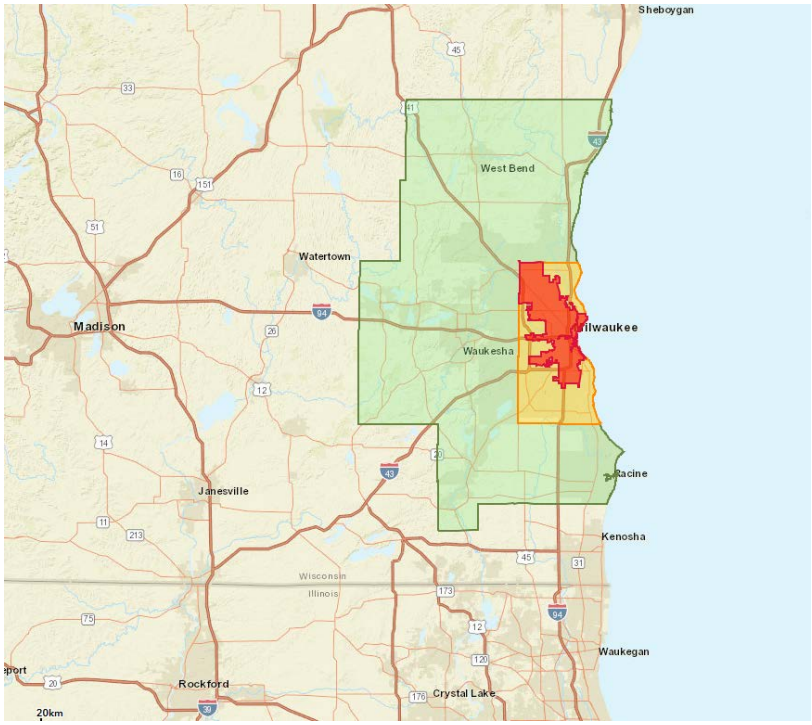
- Resident Market Definition
- Resident Market Population
- Resident Market Age Profile
- Resident Market Income Profile
- Tourism Market
- Tourism Market Benefits

Resident Market Definition

Figure V-1 provides the resident market area definition of the Domes. It is the Metro area plus Racine County. This is an area with close commuting, economic, media market and lifestyle ties to the central place - Milwaukee.

- Primary - City of Milwaukee
- Secondary - Remainder Milwaukee County
- Tertiary - Remainder Milwaukee Metro Area & Racine (Ozaukee, Washington, Waukesha & Racine Counties)

Figure V-1
Resident Market Area Definition



Source: ESRI and ConsultEcon, Inc.

Resident Market – Population

Data in **Table V-1** provides population trends in the resident market areas. Following are key findings:

- Milwaukee Metro Area itself had 1,574,900 residents in 2017; Racine is added as an additional local market in Tertiary Market Area for a total resident population of 1,772,300 in 2017.
- These markets have had and are projected to continue to have slow population growth patterns.

Table V-1
Population Trend in Resident Market Area, 2010, 2017, 2022

	2010	2017	2021	Percent Change, 2017 to 2021
Primary Market Area	594,700	591,900	593,400	0.3%
Secondary Market Area	353,000	356,100	358,300	0.6%
Tertiary Market Area	803,600	824,300	841,200	2.0%
Total Milwaukee Metro Area	**1,751,300**	**1,772,300**	**1,792,900**	**1.1%**
State of Wisconsin	***5,687,000***	***5,824,500***	***5,934,500***	***1.9%***
United States	***308,745,500***	***327,514,300***	***341,323,600***	***4.2%***

Note: Population numbers are rounded to nearest hundred.

Source: U.S. Census Bureau, Census 2010 Data; Esri forecasts for 2017 and 2022; and ConsultEcon, Inc.

Resident Market – Age Groups

Data in **Table V-2** and **Table V-3** provide an age group profile of the resident market areas. Following are key findings:

- City of Milwaukee has a much higher percent of children and young adults
- Secondary and Tertiary Market Area have a higher percentage of 55+ residents
- Experiences that serve both younger and older Audiences are desirable

Table V-2
Median Age and Percent of Population by Age Group in the Resident Market Area, 2017

	Median Age	0 to 17	18 to 24	25 to 34	35 to 54	55 +
Primary Market Area	31.4	26.2%	13.0%	16.2%	23.4%	21.2%
Secondary Market Area	41.0	19.9%	7.9%	13.2%	26.0%	33.0%
Tertiary Market Area	42.5	21.9%	8.0%	11.1%	26.8%	32.2%
Total Milwaukee Metro Area	**39.3**	**22.9%**	**9.7%**	**13.2%**	**25.5%**	**28.7%**
State of Wisconsin	***39.6***	***21.9%***	***9.7%***	***12.8%***	***25.5%***	***30.1%***
United States	***38.2***	***22.5%***	***9.5%***	***13.8%***	***25.5%***	***28.5%***

Source: ESRI and ConsultEcon, Inc.

Table V-3
Child Age Cohorts

Estimated Number of School Age Children in Resident Market Area, 2017 and 2022

	Ages 0-4	Ages 5-9	Ages 10-14	Ages 15-17	Total Ages 0-17
2017					
Primary Market Area	45,336	42,755	40,050	24,030	152,171
Secondary Market Area	18,886	20,059	20,367	11,492	70,804
Tertiary Market Area	43,551	49,949	55,434	31,672	180,606
Total Milwaukee Metro Area	**107,800**	**112,800**	**115,900**	**67,200**	**403,600**
State of Wisconsin	***336,300***	***352,800***	***363,200***	***225,800***	***1,278,100***
United States	***19,941,400***	***20,492,300***	***20,771,100***	***12,602,300***	***73,807,100***
2022					
Primary Market Area	45,604	41,237	39,417	26,092	152,350
Secondary Market Area	18,868	19,137	20,443	11,478	69,926
Tertiary Market Area	43,743	47,376	53,703	31,621	176,443
Total Milwaukee Metro Area	**108,200**	**107,800**	**113,600**	**69,200**	**398,700**
State of Wisconsin	***337,900***	***343,400***	***366,000***	***229,500***	***1,276,800***
United States	***20,663,600***	***20,576,200***	***21,418,600***	***12,947,000***	***75,605,400***
% Change 2017-2022					
Primary Market Area	0.6%	-3.6%	-1.6%	8.6%	0.1%
Secondary Market Area	-0.1%	-4.6%	0.4%	-0.1%	-1.2%
Tertiary Market Area	0.4%	-5.2%	-3.1%	-0.2%	-2.3%
Total Milwaukee Metro Area	**0.4%**	**-4.4%**	**-2.0%**	**3.0%**	**-1.2%**
State of Wisconsin	***0.5%***	***-2.7%***	***0.8%***	***1.6%***	***-0.1%***
United States	***3.6%***	***0.4%***	***3.1%***	***2.7%***	***2.4%***

Note: Total population numbers are rounded to nearest hundred.

Source: ESRI and ConsultEcon, Inc.

Resident Market – Income Profile

Data in **Table V-4** provides an income profile of the resident market areas. Following are key findings:

- Milwaukee Metro Area itself has a strong income profile that is higher than the State and the U.S. as a whole.
- The Primary Market Area – City of Milwaukee has a much lower income profile than in outer lying areas such as Ozaukee and Waukesha Counties. Providing educational and quality of life benefits to moderate and lower income people who may have fewer such opportunities is and will be an important goal of the Domes.

Table V-4
Resident Market Household Income

Percent of Resident Market Area Households by Income Group, 2017

	Median Household Income	Less than $25,000	$25,000-$49,999	$50,000-$74,999	$75,000-$99,999	$100,000+
Primary Market Area	$37,946	33.2%	27.7%	17.4%	9.9%	11.8%
Secondary Market Area	$60,911	16.6%	22.2%	20.0%	14.5%	26.7%
Tertiary Market Area	$73,557	12.6%	19.4%	18.7%	15.7%	33.5%
Total Milwaukee Metro Area	**$63,760**	20.2%	22.7%	18.6%	13.6%	25.0%
State of Wisconsin	***$56,369***	***19.5%***	***23.6%***	***20.0%***	***14.5%***	***22.3%***
United States	***$56,124***	***21.5%***	***22.7%***	***17.8%***	***12.4%***	***25.6%***

Source: ESRI and ConsultEcon, Inc.

TOURISM MARKETS

While not a major national destination the Milwaukee area still has an active travel sector and considerable numbers of visitors. The Domes as a destination attraction that already receives a significant portion of its attendance from outside of the local area creates positive economic impacts for the area especially when multiplier effects are taken into account. Following are highlights of the Milwaukee tourism market and the implications for the Domes.

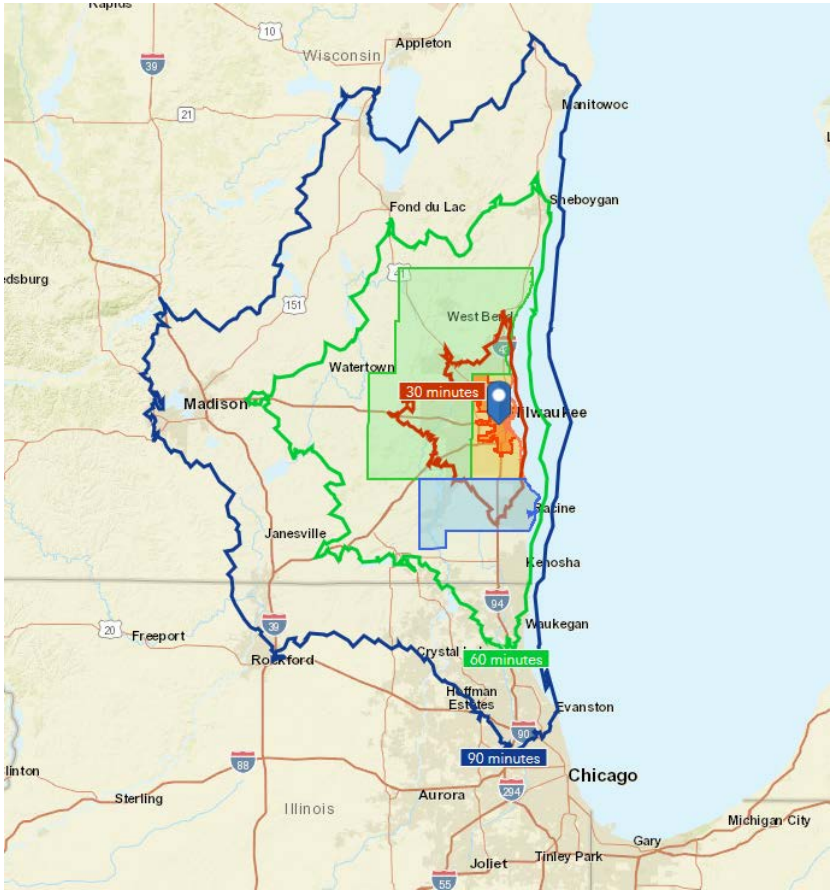
- Milwaukee County with 23 million visitors is largest tourism market in Wisconsin.
- Visit Milwaukee is an active Convention and Visitors Bureau promoting conventions, groups, and leisure travelers.
- Milwaukee is a regional destination for educational and cultural attractions.
- Large tourism markets are available in both overnight and day trip segments.
- Growth in number of hotel rooms in the market continues, signaling potential for further tourism growth.
- Both overnight and Day Trip Travelers provide substantial economic impacts and are tax generators. Direct total tourist spending includes attractions, hotels, restaurants, retailers and businesses.
- Domes ticketed attendance has a substantial percentage of out of town visitors (The available paid attendee zip code data supplied by the Domes indicates that a substantial percentage of attendees are out-of-town residents) in addition some of the free attendance (such as persons under five years old, some members etc.) are also from out-of-town).

Drive Time Analysis to Regional Cities

Figure V-2 provides a drive-time map that provides context for evaluation of the travel market to the Domes. In addition to the resident market area there are substantial cities and populated areas in the 60 minute up to 90 minute drive time as well as closer in areas in the under 60 minute drive time that are beyond the resident market area of Milwaukee Metro Area and Racine County. This drive time analysis is indicative of substantial day trip tourist markets for the Domes. These areas are already contributing substantial numbers of visitors to the Domes with capacity for growth in attendance if the potential improvements to facilities and operations are implemented and there are resulting longer length of visitor stay at the Domes complex.

- 30 Minute Drive
- 60 Minute Drive
- 90 Minute Drive

Figure V-2
Regional Drive Times



Source: ESRI and ConsultEcon, Inc.

Travel Volume and Trip Purpose

Data in **Table V-5** characteristics of domestic overnight and day trip travelers to Milwaukee by main purpose for leisure and business trips.

- Visiting Friends and Relatives is the most frequent trip purpose for both overnight and Day Trip travelers. This places a premium on Domes succeeding with Milwaukee Residents.
- Typically, tourists seek "high profile" experiences. As Domes are improved tourism attendance potential will increase.

Table V-5
Tourism Market Primary Purpose of Leisure Trips

	Domestic Overnight Trips		Day Trips		Total Trips	
	Number	Percent to Total	Number	Percent to Total	Number	Percent to Total
Total Person-Trips to Milwaukee	***7,360,000***	***32%***	***15,640,000***	***68%***	***23,000,000***	***100%***
Leisure Trip						
Visiting friends/relatives	3,900,800	53%	5,786,800	37%	9,687,600	42%
Special event	883,200	12%	2,189,600	14%	3,072,800	13%
Shopping	NA	NA	1,564,000	10%	1,564,000	7%
City trip	368,000	5%	1,564,000	10%	1,932,000	8%
Touring	368,000	5%	1,251,200	8%	1,619,200	7%
Casino	294,400	4%	782,000	5%	1,076,400	5%
Outdoors	220,800	3%	469,200	3%	690,000	3%
Theme park	73,600	1%	NA	NA	73,600	0%
Skiing/snowboarding	NA	NA	156,400	1%	156,400	1%
Total Overnight Leisure	**6,108,800**	**83%**				
Business Trip						
Conference / Convention	368,000	5%				
Other business trip	662,400	9%				
Business Leisure	220,800	3%				
Total Overnight Business	**1,251,200**	**17%**				

Source: *Milwaukee 2016 Visitor Research Report* *by* Longwoods International; ConsultEcon, Inc.

Tourism Economic Impacts

Following is a summary of the considerable Milwaukee County tourism related direct impacts and the larger impacts when multiplier effects are included. If the Domes are reinvested in and expanded, they will attract larger numbers of tourists and create additional direct economic benefits and consequent multiplier effects.

Direct Impacts of Milwaukee County Tourism in 2016:

- Tourist Expenditures $3.45 billion (up 3.9%)
- Full time jobs 32,000 (up 1.8%)
- Tax receipts $231 million (up 3%)

Total Economic Impact includes direct and multiplier effects

- Total Expenditures $5.25 billion (these are sales of goods and services)
- Total Employment 51,000 jobs (these include full time and part time jobs)

Visitor Spending

Data in **Table V-6** summarizes visitor expenditures in Milwaukee County. These per-travel party expenditures are further indication of the substantial impact on the local economy that the tourism economy has; and the direct benefits which increasing Domes attendance can have.

Table V-6
Tourism Market Expenditures

	Domestic Overnight Trips	Day Trips
Lodging	$124.00	NA
Restaurant Food & Beverage	$91.00	$53.00
Retail	$44.00	$34.00
Transportation at Destination	$37.00	$18.00
Recreation Sightseeing / Entertainment	$43.00	$32.00
Total Per Party Average Expenditure	***$324.00***	***$140.00***

Source: *Milwaukee 2016 Visitor Research Report* *by* Longwoods International; ConsultEcon, Inc.

SECTION VI

BOTANICAL GARDENS AND CONSERVATORY BENCHMARKS AND TRENDS

Benchmark Facilities

A representative group of conservatories was identified and evaluated to provide insights to industry standards and operating benchmarks. It is important to note that there are substantial differences between the benchmark institutions and the Domes. The Domes physically are among the largest conservatories (indoor gardens) in the U.S. but the Domes complex does not include substantial outdoor displays. The virtually all conservatories have substantial outdoor gardens and are thus larger attractions and have strong year-round visitor offerings. The Domes are distinct nationally in that they are stand-alone (no outside gardens), are operated by a government entity, and have very low operating budgets and staff. Therefore, while direct comparison with the other conservatories must be done carefully, these data provide useful insights into the comparative levels of operations of the Domes; and the opportunities for increased on-site facilities, attendance and operations. Without these identified benchmark institutions there would be little or no comparable benchmark data. Data in tables **Table VI-1** through **TableVI-6** provide the Benchmark data.[4] Benchmark factors include:

- Facility size and characteristics
- Attendance and pricing
- Metro area population and income characteristics
- Revenue by type (Note: Combined Domes and Friends of the Domes revenue is included for comparative purposes.)

[4] These are based on 2015 data as the most recently available at the time the study was conducted.

- Staffing, operating budgets and governance (Note: Combined Domes and Friends of the Domes revenue is included for comparative purposes.)
- Comparisons and analyses of the above operating factors

This section also includes a review of trends in Botanical Gardens and Conservations.

Table VI-1
Benchmark Facilities Profiles

Attraction	Location	Attendance	Floor Area covered by glass (sq.ft.)	Height (ft.)	Other Botanical Offerings	Attendance per Indoor Sq.Ft.
Mitchell Park Conservatory	Milwaukee, WI	180,000	46,200	85		3.9
Phipps Conservatory	Pittsburgh, PA	368,826	43,493	64	Includes Gardens	8.5
Missouri Botanical Garden	St. Louis, MO	1,133,484	24,300	70	Includes Gardens	46.6
Cleveland Botanical Gardens	Cleveland, OH	140,000	18,000	NA	Includes Gardens	7.8
Greater Des Moines Botanical Garden	Des Moines, IA	134,823	17,700	80	Includes Gardens	7.6
Atlanta Botanical Gardens	Atlanta, GA	525,000	16,400	65	Includes Gardens	32.0
San Antonio Botanical Garden Conservatory	San Antonio, TX	100,000	15,200	65	Includes Gardens	6.6
Myriad Botanical Gardens	Oklahoma City, OK	1,000,000	13,000	70	Includes Free Gardens	76.9
Denver Botanic Gardens	Denver, CO	1,042,763	12,800	51	Includes Gardens	81.5
ABQ BioPark Botanic Garden	Albuquerque, NM	390,000	10,000	60	Includes Gardens and Aquarium	39.0
Olbrich Botanical Garden/Bolz Conservatory	Madison, WI	250,000	10,000	50	Includes Free Gardens	25.0
Average		**478,627**	**20,645**	**66**		**30.5**
Weighted Average						**23.2**
Median		**368,826**	**16,400**	**65**		**25.0**

Source: Facilities listed, US Census, AAM Official Museum Directory, and ConsultEcon, Inc.

Note: Domes Attendance does not include 37,000 Farmers Market attendees; (who are on-site but don't enter the Domes).

Table VI-2
Benchmark Facilities Ticket Prices[5]

Attraction	Location	Attendance	2017 Median HH Income	Admission Includes	Adult Admission	Child Admission	Household Membership
Atlanta Botanical Gardens	Atlanta, GA	525,000	$59,802	Fee to Garden includes conservatory	$21.95	$15.95	$109.00
Phipps Conservatory	Pittsburgh, PA	368,826	$54,129	Fee to Garden includes conservatory	$17.95	$11.95	$99.00
ABQ BioPark Botanic Garden	Albuquerque, NM	390,000	$50,294	Fee includes Aquarium, Botanic Garden and conservatory	$14.50	$7.50	$99.00
Denver Botanic Gardens	Denver, CO	1,042,763	$70,077	Fee to Garden includes conservatory	$12.50	$9.00	$90.00
Missouri Botanical Garden	St. Louis, MO	1,133,484	$57,690	Fee to Garden includes conservatories	$12.00	$0.00	$115.00
Cleveland Botanical Gardens	Cleveland, OH	140,000	$52,902	Fee to Garden includes conservatory	$12.00	$8.00	$85.00
San Antonio Botanical Garden Conservatory	San Antonio, TX	100,000	$56,143	Fee to Garden includes conservatory	$12.00	$9.00	$75.00
Myriad Botanical Gardens	Oklahoma City, OK	1,000,000	$53,289	Outdoor Garden is free; fee to enter conservatory	$8.00	$7.00	$65.00
Greater Des Moines Botanical Garden	Des Moines, IA	134,823	$63,991	Fee to Garden includes conservatory	$8.00	$6.00	$100.00
Mitchell Park Conservatory	Milwaukee, WI	180,000	$57,345	Park is free; fee to enter Domes	$7.00	$5.00	$50.00
Olbrich Botanical Garden/Bolz Conservatory	Madison, WI	250,000	$64,498	Outdoor Garden is free; fee to enter conservatory	$2.00	$0.00	$55.00
Average		**478,627**	**$58,196**		**$11.63**	**$7.22**	**$85.64**
Median		**368,826**	**$57,345**		**$12.00**	**$7.50**	**$90.00**

Source: Facilities listed, US Census, AAM Official Museum Directory, and ConsultEcon, Inc.

Note: Domes Attendance does not include 37,000 Farmers Market attendees; (who are on-site but don't enter the Domes).

[5] Note that the Domes admission fee of $7 Adult and $6 Child Admission fee went up $1 for non-County residents at the beginning of 2018. Since many attendees are from Milwaukee County, for comparative purposes, the County resident pricing is shown in the chart.

Table VI-3
Benchmark Facilities Market Capture Rates

Attraction	Location	Metro Pop	Attendance	Market Capture Rate
Myriad Botanical Gardens	Oklahoma City, OK	1,373,211	1,000,000	72.8%
ABQ BioPark Botanic Garden	Albuquerque, NM	909,906	390,000	42.9%
Missouri Botanical Garden	St. Louis, MO	2,807,002	1,133,484	40.4%
Olbrich Botanical Garden/Bolz Conservatory	Madison, WI	648,929	250,000	38.5%
Denver Botanic Gardens	Denver, CO	2,853,077	1,042,763	36.5%
Greater Des Moines Botanical Garden	Des Moines, IA	634,725	134,823	21.2%
Phipps Conservatory	Pittsburgh, PA	2,342,299	368,826	15.7%
Mitchell Park Conservatory	Milwaukee, WI	1,572,482	180,000	11.4%
Atlanta Botanical Gardens	Atlanta, GA	5,789,700	525,000	9.1%
Cleveland Botanical Gardens	Cleveland, OH	2,055,612	140,000	6.8%
San Antonio Botanical Garden Conservatory	San Antonio, TX	2,429,609	100,000	4.1%
Average		**2,128,777**	**478,627**	**27.2%**
Weighted Average				**22.5%**
Median		**2,055,612**	**368,826**	**21.2%**

Source: Facilities listed, US Census, AAM Official Museum Directory, and ConsultEcon, Inc.

Note: Domes Attendance does not include 37,000 Farmers Market attendees; (who are on-site but don't enter the Domes).

Table VI-4
Benchmark Facilities Staffing

Attraction	Location	Attendance	Staffing Full	Staffing Part	Staffing FTE	Staffing Volunteer	Attendees per FTE
Mitchell Park Conservatory	Milwaukee, WI	180,000	9	8	13	NA	13,846
Olbrich Botanical Garden/Bolz Conservatory	Madison, WI	250,000	23	16	31	600	8,065
ABQ BioPark Botanic Garden	Albuquerque, NM	390,000	160	20	170	430	2,294
Denver Botanic Gardens	Denver, CO	1,042,763	140	87	183.5	2,100	5,683
Atlanta Botanical Gardens	Atlanta, GA	525,000	80	25	92.5	600	5,676
Greater Des Moines Botanical Garden	Des Moines, IA	134,823	23	5	25.5	210	5,287
San Antonio Botanical Garden Conservatory	San Antonio, TX	100,000	28	2	29	100	3,448
Missouri Botanical Garden	St. Louis, MO	1,133,484	390	0	390	2,148	2,906
Cleveland Botanical Gardens	Cleveland, OH	140,000	49	29	63.5	350	2,205
Myriad Botanical Gardens	Oklahoma City, OK	1,000,000	NA	NA	NA	NA	NA
Phipps Conservatory	Pittsburgh, PA	368,826	NA	NA	NA	NA	NA
Average		**432,897**	**100**	**21**	**111**	**817**	**5,490**
Median		**250,000**	**49**	**16**	**64**	**515**	**5,287**

Source: Facilities listed, AAM Official Museum Directory, and ConsultEcon, Inc.

Note: Domes Attendance does not include 37,000 Farmers Market attendees; (who are on-site but don't enter the Domes).

Table VI-5
Revenue by Type and Operating Expenses Select Benchmark Institutions[6]

Revenues by Source	Earned Revenue	Government	Membership	Contributions / Grants 1/	Investment / Endowment	Fundraising Events	Total Revenue	Operating Expenses 2/
Mitchell Park Conservatory	$1,112,400	$1,137,000	$55,000	$145,400	$0	$11,700	$2,461,500	$2,153,000
Phipps Conservatory	3,915,000	2,291,000	1,173,000	3,356,000	291,000	100,000	11,126,000	8,280,000
Olbrich Botanical Garden/Bolz Conservatory	648,000	1,219,000	342,000	1,155,000	15,000	37,000	3,416,000	2,793,000
Atlanta Botanical Gardens	6,762,000	172,000	3,155,000	25,110,000	501,000	6,000	35,706,000	16,045,000 3/
Cleveland Botanical Gardens	1,962,000	757,000	422,000	2,164,000	570,000	-	5,875,000	6,038,000
Myriad Botanical Gardens	2,487,000	2,010,000	175,000	495,000	7,000	229,000	5,403,000	5,142,000
Denver Botanic Gardens	7,548,000	5,146,000	2,963,000	2,292,000	28,000	122,000	18,099,000	18,155,000
Average	**$3,490,629**	**$1,818,857**	**$1,183,571**	**$4,959,629**	**$201,714**	**$72,243**	**$11,726,643**	**$8,372,286**
Percent to Total Revenues by Type								**Operating Expenses per Attendee**
Mitchell Park Conservatory	45.2%	46.2%	2.2%	5.9%	0.0%	0.5%	100.0%	$10.25
Phipps Conservatory	35.2%	20.6%	10.5%	30.2%	2.6%	0.9%	100.0%	$22.45
Olbrich Botanical Garden/Bolz Conservatory	19.0%	35.7%	10.0%	33.8%	0.4%	1.1%	100.0%	$11.17
Atlanta Botanical Gardens	18.9%	0.5%	8.8%	70.3%	1.4%	0.0%	100.0%	$30.56
Cleveland Botanical Gardens	33.4%	12.9%	7.2%	36.8%	9.7%	0.0%	100.0%	$43.13
Myriad Botanical Gardens	46.0%	37.2%	3.2%	9.2%	0.1%	4.2%	100.0%	$5.14
Denver Botanic Gardens	41.7%	28.4%	16.4%	12.7%	0.2%	0.7%	100.0%	$17.41
Average	**34.2%**	**25.9%**	**8.3%**	**28.4%**	**2.1%**	**1.1%**	**100.0%**	**$20.02**

1/ Contributions & Grants does not include Non-cash contributions
2/ Not including depreciation or grants
3/ Atlanta Budget includes fundraising for capital investments
Source: Institutions referenced and ConsultEcon, Inc.

[6] Domes Financials are for combined 2015 operations (for comparative purposes to the benchmark institutions) of the Domes Actual accounts provided by Milwaukee County Parks plus Friends of the Domes. This combination of the parks budget and the Friends provides a more complete comparison of the operations of the Domes to the Benchmark institutions.

Table VI-6
Benchmark Facilities Governance

Governance at Selected Benchmark Facilities - Ranked by Extent of Private Not-For-Profit Participation

Attraction	Location		Ownership / Governance
Missouri Botanical Garden	St. Louis, MO	Private Non-Profit	Nonprofit organization. Tax-exempt.
Denver Botanic Gardens	Denver, CO	Private Non-Profit	Nonprofit organization. Tax-exempt.
Cleveland Botanical Gardens	Cleveland, OH	Private Non-Profit	Nonprofit organization. Tax-exempt.
Atlanta Botanical Gardens	Atlanta, GA	Private Non-Profit	Nonprofit organization. Tax-exempt.
Phipps Conservatory	Pittsburgh, PA	Private Operations, Govt Support	Municipal; Nonprofit organization. Tax-exempt.
Myriad Botanical Gardens	Oklahoma City, OK	Private Operations, Govt Support	Municipal. City of Oklahoma City Parks & Recreation Dept.
San Antonio Botanical Garden Conservatory	San Antonio, TX	Gov. Operated / Society Support / Society to Operate in 3 years	Municipal.City of San Antonio. Subsidiary Institution: San Antonio Botanical Center Society. Tax-exempt
Olbrich Botanical Garden/ Bolz Conservatory	Madison, WI	Joint Operations / Funding	Municipal. City of Madison. Nonprofit organization. Tax-exempt.
Greater Des Moines Botanical Garden	Des Moines, IA	Joint Operations / Funding	Municipal. Department of Parks & Recreation. Nonprofit organization. Tax-exempt.
ABQ BioPark Botanic Garden	Albuquerque, NM	Gov. Operated / Friends Funding Support for Capital & Positions, Volunteers	Municipal. Nonprofit organization. Tax-exempt.
Mitchell Park Conservatory	Milwaukee, WI	Gov. Operated / Friends Funding Support, Volunteers	County. Parent Institution: Milwaukee County Park System. Tax-exempt Friends Group.

Source: Facilities listed, AAM Official Museum Directory, and ConsultEcon, Inc.

Following are key findings from the review of benchmark conservatories and botanical gardens.

- The Domes are one of the few conservatories that does not have accompanying outdoor gardens. Typically, the conservatory is an adjunct component of the larger botanical garden. The Domes in many respects are an anomaly -the comparables are generally botanical gardens that have major indoor conservatories. They are large in scale to provide the "mass of attraction elements" to attract visitors for a variety of offerings. Offerings at botanical gardens include a large variety of garden types that are outdoor and indoor; themed gardens such as children's gardens or Japanese gardens; excellent facilities to host events; educational facilities for adults and children; a variety of botanical shows and events; and visitor amenities including strong retail and food service. These botanical gardens are institutions in their city.

- The Domes do not have as high an attendance pattern as most benchmark facilities. This is despite having one of the two largest conservatories in the benchmark conservatories. Thus, adding outdoor gardens would bring the Domes into conformance with most conservatories and would support higher and less seasonal attendance and increased revenue potential.

- Ticket prices are lower than most of the benchmark conservatories.

- The ratio of attendance to metro area population; a measure of its local popularity and success in attracting attendance is lower than most of the benchmark conservatories. This measure signals attendance growth potential.

- Staffing is much lower than at the benchmark conservatories. Attendance per Full Time Equivalent employee (FTE) is seventy percent to 500 percent higher than the benchmark conservatories. Operating budgets are also low at the Domes relative to attendance. The low staffing and budgets are not measures of efficiency at the Domes, but rather of lost opportunity to advance the Domes' mission, to serve the public better and to earn more revenues.

- The implications of adequate staffing and operating budgets for improved outcomes given the current facility relate to education, public service, events, programs, maintenance and marketing. With expanded and enhanced facilities as outlined in this report's redevelopment and expansion scenarios, the implications of appropriate staffing and budgets are that the Domes could evolve into an operating model that would maximize the opportunity created by the enhanced facility for educational, conservation, economic development and quality

of life benefits in an economically self-sustaining governance format. The governance format in place currently has not been able to provide such adequate staffing.

- Domes have a higher ratio of government funding over earnings and private contributions than benchmark facilities. With improved facilities and increased operating budgets and more personnel at Domes, there is a good opportunity to increase earned and fundraising revenues.
- Benchmark facilities generally have not for profit governance and/or much higher involvement of private sector than Domes. The governance structure of the Domes as a unit in Milwaukee County Parks has limited the funds available for staff, maintenance and operations. Strategies to create public-private partnerships on governance and operations are the key to gaining private funding to supplement government funding to accomplish needed renovations and expansion of the Domes campus as outlined in the redevelopment scenarios. Then, the public-private operating model would allow the Domes to operate in a way to justify the initial capital investment and to provide educational, conservation, economic development and quality of life benefits to Milwaukee County and other area residents.

Trends in Botanical Gardens and Conservatories

The botanical garden, zoo, visitor attraction, and park industry has been changing in response to the technological revolution, changing demographics and economic conditions. The confluence of these macro environmental factors has forced projects of all types to reexamine how best to meet the changing needs of the communities in which they are located, how best to compete for the limited leisure time and money of visitors, and how to fund on-going operations, improvements and capital projects in a changing funding environment. These trends include:

- **Content Blending** has become widespread with all sorts of educational, cultural and nature-based facilities offering a blending of content rather than narrow focus on the core topic.
- **Community Centered Programming** is increasingly important to build a local base of support for the institution. The needs of people and communities for informal learning, places to engage with the community and to support education has grown and is expected to increase.
- **Increased Competition** from other educational, cultural and nature-based institutions as well as commercial offerings with nature-based content. In addition, today's busy lives often leave less time available for such educational, cultural and nature-based destinations.
- **Funding has Increasingly Become More Diverse** with government-based funding becoming a smaller percentage to total funds. Also earned revenues are increasingly emphasized in facility investments and ongoing operating policies.
- **Market Driven Content and Exhibits** are reflective of the above key trends. Purposeful attention is given to the market's needs and desires related to quality of experience, topics covered, attention to a complete and well-rounded experience, and, value in both price and time spent at the institution
- **Planning for an Aging Population and Diverse Audiences** is essential in addressing all of the above key trends. Knowing the audiences that are being served and can be served is critical to success.

- **Perceived Value and Pricing** is central to maximizing and sustaining attendance and earned revenue. Audiences respond to appropriately priced experiences. They are willing to pay more for value, but high quality is increasingly expected, as people are valuing the cost of attending an educational, cultural and nature-based facilities based on cost, but also time spent and alternative activities.
- **Use of Technology** has become widespread so that genuine experiences and nature-based exhibitions are still highly valued. However, audiences perceive that appropriate technologies augments the core experience.
- **Institutional Governance has Reflected Institutional Needs** with increasing use of public-private partnerships and governmental entities partnering / supporting non-profits.

Opportunities in Programs and Facilities

Simply addressing past deferred maintenance to the Domes will not appreciably change the current Domes operating profile which is well below industry standard and which is not meeting the Domes potential for attendance, education and community benefits and care for the facilities. These operational shortcomings are due to underfunded operating budgets and obsolete facilities in addition to the maintenance conditions. In order to move beyond the current Domes operating profile, there is a need to enhance operations and governance as well as programs and facilities. Following is additional information including imagery from other institutions that provides a sense of the possibilities to create at the Domes engaging programs and facilities of the type that are recommended for future scenarios that include reinvesting in the Domes experience. Note that many of these improvements will require extensive investment in the Domes to establish and maintain. These are the types of opportunities that are envisioned for the options for the future of the Domes. The type and scale of facilities and programs will be determined in future more detailed planning if reinvestment in the Domes is undertaken.

Trends in Programs

- Integrating STEM/STEAM topics with horticultural interpretation
- Art Exhibits / Nature / Local Art Programs
- Health & Wellness Programs
- Changing Horticultural Displays
- Native Ecological Displays / Reclaiming Native Species
- Ecosystem Approach (Taxonomy / Typology)
- Conservation and rare / endangered species studies
- Expanding Audiences beyond Traditional Core Audiences
- Landscaping classes (what to plant what time of year / what climate)
- Education – partnerships with (high schools?) – local colleges/universities – "degree programs"
- Dark Dome – night programs
- Photo Shoots
- Music / Concerts
- Pop-up Events
- Public Outreach to Neighborhood

The following Figures include pictures of some of these trends and the facilities that have implemented them.

Figure VI-1
Integrating STEM/STEAM topics with Horticultural Interpretation

Natural History Museum of Los Angeles County, metal listening stations allow visitors to hear the amplified sounds of vascular system of a coast live oak.
Source: Public Garden Magazine

Christina Reiman Butterfly Wind at Reiman Gardens, Iowa State University
Source: Robinson Anderson Summers, Inc.
Public Garden Magazine, 2014 Issue 3, pg. 5

United States Botanical Garden Exhibit Exposed: The Secret Life of Roots
Source: Public Garden Magazine Vol. 31, Issue 1, 2016 pg. 22-23

Figure VI-2
Art Exhibits / Nature / Local Art Programs

Mitchell Park Horticultural Conservatory Volunteers
Source: Mitchell Park Horticultural Conservatory

Raleigh: Wilkerson Nature Preserve Park
Source: townofcary.org

Frist Center for the Visual Arts, Nashville, TN
Source: fristcenter.org

Frist Center for the Visual Arts, Nashville, TN
Source: fristcenter.org

Aspen Center for Environmental Studies
Source: www.tripadvisor.com

Water Drop in the Earl & Donnalee Holton Arid Garden, 2008. Photo: Andy Terzes
Source: Public Gardens Magazine

Lena Meijer Tropical Conservatory,
Rock 2011 Photo: Andy Terzes
Source: Public Gardens Magazine

The Edinburg Scenic Wetlands & World Birding Center
Source: edinburgwbc.org

Trends in Facilities

- Children's (Discovery) Gardens and Displays
- Butterfly Gardens / Houses
- Treetop Walks / Canopy Walkway in Dome
- Plant Science Center
- Insectarium
- Restaurant / Food Services
- Grow Plants for Sale
- Expanding the array and type of Events and Event Space
- Offering Community Spaces for Local Use
- Seedbanks / Conservation
- Greenhouses / Farmers Market
- Outdoor Gardens / Water Features
- Aquarium Component
- Connect Domes underground or above ground seamlessly
- Improve energy efficiency to save costs
- Themed Outdoor Gardens
- Ice Age Garden (Wisconsin focus)
- Visitor Orientation Space
- Temporary Exhibit Space

The following Figures include pictures of some of these trends in facilities.

Figure VI-3
Children's (Discovery) Gardens and Displays

Far East Organization Children's Garden at Gardens by the Bay, Singapore
Source: http://www.archilovers.com/projects/115343/far-east-organization-children-s-garden-at-gardens-by-the-bay.html

Coastal Maine Botanical Gardens
Source: https://freeescortpost.com/garden-maze-designs/garden-maze-designs-lovely-english-maze-at-maine-children-s-garden-american-gardening/

Source: Google Images

Melbourne International Flower and Garden Show - The Children's Garden
Source: http://www.bubsonthemove.com/photo-blog-the-melbourne-international-flower-and-garden-show/

The Oregon Garden
Source: oregongarden.org/gardens/childrens-garden/

Book Worm Garden -Sheboygan, WI
http://www.bookwormgardens.org/photo-gallery

Camden Children's Garden, New Jersey
Source: Google Images

Figure VI-3 (continued)
Children's (Discovery) Gardens and Displays

Natural History Museum, London
Source: Photo by Oli Scarff/Getty Images

The Strong Museum, Rochester, NY
Source: The Strong, Rochester, NY

Museum of Natural History, Washington, DC
Source: http://www.argyleacademy.com

New York Botanical Garden
Source: photo by Joseph DeSciose

Desert Botanical Garden, Phoenix, AZ
Source: http://www.genehanson.com/

Fort Fisher Aquarium, NC
Source: www.wilmingtonparent.com/

Florida Museum
Source: www.floridamuseum.ufl.edu

Woodland Park Zoo
Source: wabutterflyassoc.org/

Wings of Fancy Live Butterfly and Caterpillar Exhibit, Washington, DC
Source: washingtonmomsgroup.com

Figure VI-4
Tree Top / Canopy Walks

Lied Jungle at the Omaha's Henry Doorly Zoo
Source: https://www.konpax.com/henry-doorly-zoo-in-omaha-nebraska/

Borneo Rainforest Lodge
Source: David Hogan Jr.
https://www.cnn.com/travel/article/malaysia-rainforest-resorts/index.html

Jewel Changi Airport in Singapore
Source: Moshe-Safdie-Architects

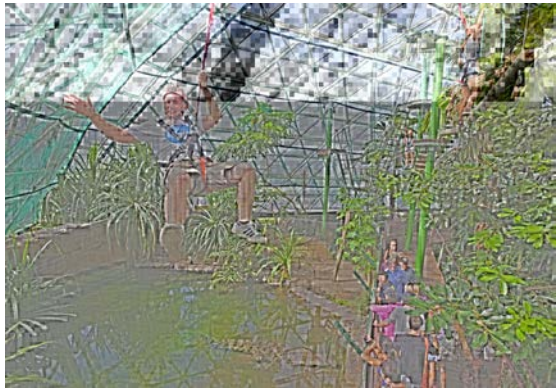
Burgers' Zoo Netherlands
Source: youtube.com

Gardens by the Bay in Singapore
Source: www.gardensbythebay.com.sg

Figure VI-4 (continued)
Tree Top / Canopy Walks in a Dome (continued)

Cairns ZOOM and Wildlife Dome
Source: Grayline Tours

Cairns ZOOM and Wildlife Dome
Source: Grayline Tours



Cairns ZOOM and Wildlife Dome
Source: https://cairnszoom.com.au/image-library/high-zoom-gallery/

Cairns ZOOM and Wildlife Dome
Source: https://www.city-discovery.com/cairns/tour.php?id=2483

Cairns ZOOM and Wildlife Dome
Source: Travelocity.com.au

Source: Cairns ZOOM and Wildlife Dome

Figure VI-5
Plant Science Center

Donald Danforth Plant Science Center
Source: /janiceperson.com

Donald Danforth Plant Science Center
Source: St. Louis Public Radio

Donald Danforth Plant Science Center
Source: St. Louis Public Radio

Auburn University Plant Science Center
Source: Alabama Agricultural Experiment Station

Donald Danforth Plant Science Center
Source: St. Louis Post-Dispatch

Donald Danforth Plant Science Center
Source: St. Louis Post-Dispatch

Figure VI-6
Insectarium

American Museum of Natural History
Source: Ralph Appelbaum Associates
https://nypost.com/2017/01/11/american-museum-of-natural-history-to-get-an-insectarium/

Audubon-Insectarium
Source: expeida.com

Philly Insectarium
Source: GoPhillyGo

Audubon-Insectarium
Source: audubontransactions.org/

Audubon-Insectarium
Source: expeida.com

Figure VI-7
Restaurant / Food Services

Source: Google Images

Figure VI-8
Plants for Sale

Source: Google Images

Botanical Garden and Conservatory Trends Summary

The basic offerings of quality botanical displays and seasonal changing exhibits and flower shows is not enough for botanical gardens and conservatories to have market success and maintain their relevance with audiences. Botanical gardens and conservatories are employing a variety of strategies to become more relevant to their current audiences and to attract new audiences. The mix of facilities, programs and events that individual institutions employ to bolster their basic offerings varies by institution based on their size, target audiences, financial resources and the goals and mission of the institutions. However offering a compelling array of physical spaces and programs that attract a variety of audiences throughout the year has been central to the operating success of botanical gardens and conservatories nationally. It is recommended that if reinvestment in the Domes complex is made, that complimentary investment in the types of leading edge ancillary facilities and programs be made as well. Further planning and design will be needed to identify the best mix of new public offerings and programs for the Domes. These new and improved facilities and programs will improve the visitor experience, increase attendance and earned revenues and enhance the relevance of the Domes to Milwaukee. In turn these investments will be a part of the rationale for reinvesting in the Domes.