



Standards and Protocol for Participation in the Biophilic Cities Network

Expectations and Submittal Requirements for Partner Cities

[Version: March 2015]

PREAMBLE

We believe, as the planet continues to rapidly urbanize, that the importance and primacy of nature in the daily lives of the human species, needs re-affirming and strengthening. With this in mind, the Biophilic Cities Project was initiated at the University of Virginia in 2011. The Project builds on the important concept of Biophilia--that humans have co-evolved with the natural world, and that we have an innate need for contact with nature and other forms of life [More information about the idea of biophilia can be found in Wilson, 1984, and its implications for design and planning are examined in Kellert, Heerwagen, 2009].

What is a Biophilic City?

The concept of Biophilic Cities extends this idea to urban environments, where most of the world's population in the future will live. While the question of what constitutes a biophilic city is an open and evolving one, it is a city that contains abundant biodiversity and nature, that works to conserve that nature as well as creatively insert new forms of nature, and fosters connections to the natural world. It is a nature-ful city, ideally providing residents of urban neighborhoods an ability to live in nature-immersive environments. A Biophilic City places nature at the core of its design and planning, works to create abundant opportunities to learn about and connect with this nature. The vision of a biophilic city understands and celebrates that cities represent habitat for many different forms of life, and works to ensure humane co-existence. Biophilic Cities protect, grow, and celebrate local nature, but also work on behalf of nature its borders.

Much of the work of the Biophilic Cities Project has been focused on exploring the many ways that cities can give meaning to biophilia and manifest biophilic urbanism. Please refer to BiophilicCities.org for more information.

The Many Benefits of Biophilic Cities

There are many clear and tangible benefits that flow from fostering urban connections to nature. The research is growing and presents an increasingly compelling argument about the need for and power of nature in urban environments. Research shows that contact with nature reduces stress, improves mood, and enhances cognitive performance. We are likely to be healthier, happier and more productive with nature around us. Nature in the city, moreover, helps to make cities and urban neighborhoods more

resilient and livable, and this nature provides extensive and economically-valuable ecosystem services. A nature-ful city, emphasizes the life-enhancing value of wonder and awe, and has the potential to add the meaning and enjoyment of an urban life.

More information on the emotional, environmental, social and economic benefits of nature in cities can be found at: BiophilicCities.org.

BACKGROUND

On October 17-20, 2013, the Biophilic Cities Project officially launched the Biophilic Cities Network. At that time, the Biophilic Cities Network consisted of eleven partner cities including: Singapore; Birmingham, United Kingdom; San Francisco, California; Portland, Oregon; Wellington, New Zealand; Montréal, Quebec; Milwaukee, Wisconsin; Vitoria-Gasteiz, Spain; Rio de Janeiro, Brazil; Phoenix, Arizona; and Oslo, Norway. Representatives from many of these cities joined us for the Biophilic Cities Launch in 2013 to share the current state of biophilic initiatives in their cities and brainstorm potential research questions and resources that would be helpful in moving these initiatives forward. In addition, the event drew attendees from nonprofit organizations, businesses, and academic institutions who participated in discussions, field trips, and workshop activities. The event lasted four days and yielded many ideas and potential partnerships. Since the launch, members of the new Biophilic Cities Network created a steering committee to guide the process of defining and expanding the network.

RATIONALE FOR THE BIOPHILIC CITIES NETWORK

One of the key questions before establishing a Biophilic Cities Network is determining whether such a network is needed. Given the large and growing number of networks in the United States and throughout the world, some identified need must exist to justify creating another way for cities, organizations, and individuals to connect. During the Biophilic Cities Launch, participants indicated that they are involved in other, somewhat similar networks (e.g. the Urban Sustainability Directors Network, the Wild Cities Project, the C40 Cities Climate Leadership Group and others).

Yet, participants could not identify any other network exclusively focused on increasing human-nature connection in cities. We believe that such a network will be a pivotal complement and resource for related networks, and inspire people and cities to incorporate nature more explicitly into design and planning decisions; and connect local citizens and leaders with like-minded people and initiatives. An important distinction between the majority of existing networks and the Biophilic Cities Network is an explicit focus on increasing the presence of and opportunity to connect with all forms of nature in cities, rather than a broader focus on climate adaptation and sustainability more generally (although these goals are certainly also addressed by the aims and intent of the Biophilic Cities Network!) Additionally, the Biophilic Cities Network is not intended exclusively to promote “urban greening” (green rooftops, green streets, green walls, etc.) but rather adopts a more holistic view of the definition of “nature,” embracing all aspects of urban ecology, from the tiniest invisible microbes, to urban wildlife habitats, to increasing our connection with the wonders of the night sky. The Biophilic Cities Network defines “nature” in a broad and inclusive way. It includes traditional natural spaces in city planning and design, and native flora and fauna, but also includes the many human-designed green elements, such as ecological rooftops, balcony plantings and vertical gardens, often attached to buildings. While what constitutes urban “nature” remains an open question, the Network acknowledges that there is value from many different forms. Even the presence of shapes and forms in nature help us to connect to the natural world and tap into our biophilic sensibilities.

The Biophilic Cities Network intends to connect people all over the world, both ordinary citizens and urban leaders, desiring to welcome more nature, and greater love of nature, into urban life. The network will complement existing networks and organizations, and offer a unique opportunity to share best practices and develop a stronger global attitude toward embracing nature in cities.

NETWORK MODELS

To determine the appropriate structure of the Biophilic Cities Network, we reviewed various types of network models that have been used by other organizations with similar missions, goals, and objectives. We identified four different types of models: Membership/Subscription Networks, Technical Assistance Programs, Certification Programs, and Pledges/Commitments.

Type	How It Works	Benefits	Examples
Membership/ Subscription Networks	Pay fee to join the organization/network	• Resources • Recognition • Exclusive access to network/networking opportunities	STAR Communities, Urban Sustainability Directors
Technical Assistance Programs	Create action plan that is reviewed	• Assistance available to ensure success • Recognition • Resources	One Planet Communities
Certification (rigorous)	Apply for certification, pursue “points”	• Recognition • Meet legal requirements	LEED, International Living Future Institute's Living Building Challenge
Certification (designation)	Commit to actions to achieve designation	• Recognition/community support	Tree City, Bird City
Pledge/Commitment	One-time commitment, take pledge, actively promote mission	• Resources • Access to community of like-minded people	SEED Network

Membership/Subscription Networks

Membership and subscription networks are one type of model that appears to be common for many organizations. To be a member of this type of network, an individual or group typically pays a fee to join. A member may also have to undergo an assessment and remain active within the network. One example is the Urban Sustainability Directors Network, which is a membership based peer-to-peer network. There are different levels of membership, but each requires active participation and a fee to join. This network offers many benefits, including an approach for networking with other sustainability directors across the country, opportunities for collaboration, funding, and other forms of support. An example of a membership or subscription network for cities is the Sustainability Tools for Assessing and Rating Communities or STAR Communities. This network is based on evaluation and while their tool is free, you must pay to enter your community's data in order to be certified. There are two levels of recognition, which includes all communities that certify their intent to use the STAR Community Rating System and those that have certified their intent and have made progress on reporting.

Technical Assistance Programs

Technical Assistance programs can provide recognition, resources, expert assistance, and accountability. These programs may or may not be fee based depending on their funding source. The One Planet Communities program is an example of a technical assistance program. Applicants have assistance creating and implementing their One Planet action plans. There is an annual review process to maintain accountability.

Certification Programs

Certification programs can provide recognition and a place for members to connect. In some ways similar to subscription or membership-based networks, rigorous certification programs can require a fee to join and have an evaluation component. One of the most well-known certification programs is the fee-based Leadership in Energy & Environmental Design (LEED) program. With LEED, a building must be reviewed using an appropriate rating system for its type.

There are other certification programs that are not as detailed and expensive as LEED. Tree City or Bird City certifications are examples of certification programs that are more like designations. To become a Tree City, a community must meet four basic requirements that are flexible enough to be applicable to a variety of conditions. The Bird City program has 22 criteria and cities must meet at least 7 of them.

Pledge/Commitment

Another category of networks requires a simple signing of a pledge or commitment. The Social Economic Environmental Design (SEED) network is an example that requires its members to sign a simple pledge online and provide basic contact information. This type of network requires the lowest level of commitment on the part of members, but allows people to feel connected to the organization.

RECOMMENDATIONS

After reviewing existing network strategies, we propose a model for the Biophilic Cities Network that is a hybrid of the “Pledge/Commitment” model and the “Membership/Subscription” model. For individuals and organizations interested in participating in network activities, membership in the Biophilic Cities Network will only require signing the pledge, with further and more frequent participation at the discretion of the individuals and/or organizations. In order to receive full Partner City status, local leaders must agree to adopt legal and policy changes (at a minimum a measure committing to biophilic efforts) to advance biophilic initiatives and attitudes in their city, as well as select and commit to a flexible set of parameters to monitor progress over time. Specific activities of general network participation and standards and protocol for Partner City Participation are discussed further below.

Biophilic Cities Network

It is our belief that every city is biophilic to some degree, and has the potential to become a more biophilic city, and that realizing that potential will require intentional changes in some municipal and urban planning and design policies and practices to produce richer, more vibrant nature-filled cities of the 21st century. To that end, membership in the Biophilic Cities Network will be free and open to anyone interested in committing to making their neighborhood, city, and region places where nature is at the forefront of design and planning decisions and where people are encouraged to develop deeper connections with the nature all around them. Those who join the Biophilic Cities Network will be listed as members on our map of Global Biophilic Cities, will receive our monthly newsletter, and have the opportunity to join the network’s social media outlets, including the Biophilic Cities LinkedIn group, Twitter feed, and Facebook page. Network members are invited to attend international conferences and meetings, participate in Biophilic Cities webinars, and will have the opportunity to create or join a local Biophilic Cities Network chapter in their own city or town.

In sum: If you join the Biophilic Cities Network, you:

- *Receive our monthly newsletter*
 - *Are encouraged to join us on social media (LinkedIn, Twitter, Facebook)*
 - *Are invited to attend our annual or bi-annual conference and meeting*
 - *Are invited to attend our webinars*
 - *Create a local chapter and encourage network participation in your city*
-

Standards and Protocol for cities wishing to officially participate in the Biophilic Cities Network as a Partner City (as opposed to an individual or organization) will be required to satisfy the following key requirements.

Minimum Partner City Requirements

Adoption of an official resolution or other instrument stating the intention to participate in the Network, by the City Council or other local governing board or body. The precise wording of this resolution is open to variation and is modifiable, but must contain a statement supporting the goals of biophilic cities, the importance of nature in urban life, and stating the city's intent to join the network. A sample resolution is contained in Appendix A of this report.

Preparation of a Biophilic Cities Summary/Narrative Statement as a background document for the Resolution adoption. Here we ask that each participating city prepare a brief statement summarizing existing biophilic qualities and current initiatives, and a statement of goals and aspirations for the future. The total length of this statement should be in the 500-1000 word range.

More specifically, this brief narrative should consist of two parts:

- A statement of the key ways in which the city is already biophilic (extent to which nature may already be found in the city and where/in what ways) and the key initiatives, programs, policies and projects already undertaken to advance the agenda of biophilic cities (around 500 words).
 - A statement of goals and aspirations for the future. This part of the statement would describe the specific steps the city will undertake to enhance nature or the position of nature in the community. This section can be in the form of a text narrative, a set of bulleted actions, or a combination of both (around 500 words).
-

Biophilic Cities Indicators

Participation as a partner city will require each city to select a limited number of municipal indicators by which biophilic qualities can be assessed and progress can be evaluated over time. More specifically, cities will be asked to identify a minimum of 5 indicators (and these can be indicators that are already in use and contained in other plans and documents), and agree to take the necessary steps to collect the data necessary to monitor these indicators over time. More specifically, partner cities must choose at least one indicator in each of the following categories:

1. Natural conditions, qualities, infrastructure

- Examples of such indicators include:
 - Percent forest canopy coverage;
 - Percent city population living (or working) within 300 meters of a green space, park, or other natural element;
 - Square foot/square meter of green rooftops, green walls, and other vertical nature per 1000 population;
 - Percent/total acreage covered by native habitat;
 - Number of new projects (public or private) of constructed nature, started or completed, over time.

2. Biophilic engagement, participation, activities, and knowledge

- Examples of such indicators include:
 - Percent population visiting parks or green spaces daily;
 - Ability of city residents to identify common species of flora and fauna;
 - Extent of basic eco- or bio-literacy among residents;
 - Extent of membership in nature and outdoor-oriented clubs and activities (e.g. birding clubs, neighborhood nature clubs, community gardening, native plants society, etc.)
-

3. Biophilic institutions, planning, and governance

- Examples of such indicators include:
 - Percent city budget devoted to nature conservation, restoration, education;
 - Existence of a biophilic cities strategy, action plan, or the equivalent (e.g. a biodiversity action plan, green infrastructure plan or element in local comprehensive plan) and annual progress towards its goals;
 - Revisions to, and innovation in, development planning, policy, regulations, guidelines, and public engagement and education to incorporate and create biophilic values and goals through city planning, design, and development practice;
 - Percent of primary school pupils exposed to nature education; number of city schools with eco- or bio-literacy curricula;
 - Extent of evidence of leadership and support of global nature conservation, and nature conservation efforts in other cities [e.g. city-to-city aid agreements, participation in global conservation initiatives and conferences, etc].

[Note: participating cities may wish to review the similar, relevant indicators used in the Singapore Index of Biodiversity; see <https://www.nparks.gov.sg/biodiversity/the-singapore-index-on-cities-biodiversity>]

4. Human health/well-being Indicators

- Examples of such indicators include:
 - Percent of city population spending at least 30 minutes of the day outside exposed to urban nature;
 - Percent of city population participating in 30 minutes of physical activity outside per day;
 - Percent of schools where children have access every day to nature play;
 - Percent of low-income and/or minority city neighborhoods with access to nature (within five minute walk);
 - Measurable progress made to overcome inequitable or unfair distributions of urban nature through planning. An example might be increasing tree canopy coverage in neighborhoods with vulnerable populations.
-

A more complete listing of possible indicators is being compiled and will be provided in an accompanying appendix B.

Biophilic City Contact / Coordinator

Each participating city will designate a specific staff person who will serve as the City's Biophilic Cities Network Contact and Coordinator. This individual should ideally be housed in and represent an agency or department of the city already involved in the conservation, restoration of nature, and/or the design and planning of development in the city.

Cost of Joining the Network

To partially compensate for the costs of administering the Network, a small membership fee will be charged for new Partner Cities. This fee shall be a one-time fee of: \$250 USD. The fee may be waived in special circumstances (for instance, in the case of smaller cities wishing to join).

Partner City Expectations

While we wish to avoid making the Network overly regulatory or bureaucratic, it is important to establish that participation in the Network carries with it certain duties and obligations, and certain expectations. They shall include, but not be limited to, the following:

Over the course of the year, partner cities will be expected to:

- Share at least one (1) blog post, short best practice case or video-report;
 - Participate in at least one (1) webinar, workshop or Skype/conference call;
 - Respond to requests for assistance from other partner cities where possible;
 - Host possible visits from delegations from other partner cities when possible;
 - Attend where/when possible our yearly or semi-yearly Biophilic Cities world conference;
 - Assist individuals and organizational members of the Network located in your city;
 - Other expectations consistent with serving as a global leader in the Biophilic Cities Movement.
-

Timeframe

Partner City status shall be awarded initially for a period of two years, beginning at the point of approval by the Biophilic Cities project, and following the submittal of application materials. Partner City status will be renewable following this for subsequent periods of 2-5 years.

In sum, If you are a Partner City, you:

- *Adopt an official resolution or other instrument*
 - *Prepare a Biophilic Cities narrative statement*
 - *Select and commit to monitoring a minimum of five indicators*
 - *Designate a Biophilic Cities contact/coordinator*
 - *Meet additional expectations as outlined above*
-

Appendix A: Sample BC Resolution

ATTACH - forthcoming

Appendix B: Sample BC Indicators

ATTACH - forthcoming

[Authorship and Acknowledgements: This protocol document was primarily authored by Tim Beatley, Carla Jones and Julia Triman, of the Biophilic Cities Project. Extensive comments were provided by our Biophilic Cities Steering Committee members including Julia Africa, Amber Bill, Peter Brastow, Lena Chan, Scott Edmondson, Nick Grayson, Mike Houck, Jana Soderlund, Stella Tarnay, Craig Thomas, and Helena van Vliet.
