

## The Compelling Case for a Biophilic Approach to Arlington's Future

At only 26 square miles and with a rapidly growing population, Arlington County faces critical challenges. Its central location in the Washington, DC, metropolitan area assures long-term economic viability, and a desirable location to live and to work. As a result, the number of residents is expected to increase 33 percent in the next 25 years—from an estimated 226,400 today to 301,200—a rate that will produce a density of more than 11,580 persons per square mile by 2045, as compared to a countywide density today of 8,700. \*

Arlington has an impressive 148 county-owned parks, but nearly half are small—under 2 acres—and park acreage is not distributed evenly across the county. One logical consequence of Arlington's predicted growth is the diminished per capita availability of parks and public open spaces for Arlington residents in the future. The impact is particularly serious in and near the otherwise well-planned development corridors. Currently, 51 percent of Arlington's residents live in one of three planning corridors, which themselves constitute about 5.7 square miles, or 22 percent, of Arlington's land area. In those corridors, density is currently more than double that of the countywide figure—at 20,200—and comparable to the 15 densest jurisdictions in the U.S.

Arlington's overall development strategy—known as SmartGrowth—is the policy behind this distribution pattern. Anchored by MetroRail pathways and other major local features, SmartGrowth has focused development to achieve efficiencies in transportation, infrastructure, commercial and business enterprises, employment, and residential locations. Overall, this approach has been highly effective in achieving the vision intended. However, SmartGrowth has not sufficiently accounted for the livability of Arlington's corridor spaces and has severely undervalued open spaces and park availability in and near those corridors. The vast majority of Arlington's future population growth will occur in these same corridors. By 2045 it is estimated that the corridors will be home to 179,500 residents, with a density of 31,490 per square mile. The remainder of the county (78 percent and 20.3 square miles) will be home to 121,700 residents, at a density of 5,595 residents per square mile. Without immediate and significant changes to our development priorities, Arlington will face a future that will create serious inequities with regard to outdoor space availability and access, and increasingly will demonstrate how SmartGrowth is not, in one very important way, smart.

One of the most important initiatives for urban areas in this century is the emerging Biophilic Cities movement. Biophilia is the recent, science-based understanding of the importance of nature for our health, our happiness, and even our economic and environmental sustainability. And it is the basis for a paradigm shift in urban planning. Many cities around the globe are already placing urban nature at the top of their priorities, adding to their repertoire of policies to promote equitable opportunity for residents to have healthy habitat, and complementing their efforts to protect the environment, promote sustainability, and enhance resilience.

Arlington residents have expressed in numerous public engagement contexts a strong preference to protect natural spaces, to avoid condemning existing natural spaces to any other purpose, and to find ways to repurpose current built spaces for needed municipal operations, or restore them to casual use spaces. The Public Spaces Master Plan\* survey, a statistically valid analysis of resident views on public space priorities and amenities, placed natural spaces and trails as the highest priority. In various public fora, residents have also expressed strong preferences that we

preserve natural habitat, increase open space, protect and plant native trees, and ensure recognition of the inherent value of wetland, meadow and riparian areas in all land use contexts.

The Trust for Public Land has estimated that currently 98 percent of Arlington residents live within a ten-minute walk to a park. It is an admirable data point, but that data point does not address the per capita loading on our parks, by location and by population distribution. We have less park acreage and more people in and near the development corridors, where most of our affordable housing efforts are located. Data to calculate a “per capita load” by park is not readily available, but is not needed to understand the issue. Projecting forward, it is clear that the “per capita load” for Arlington parks that are within a ten-minute walk for development corridor residents is quite high today, and in 2045 will likely be at a nearly dysfunctional level. We should be concerned about the persons per acre ratings of our public spaces right now.

The location of parks is one important factor, while park size is another. Having small parks is certainly better than having no parks, and in a dense urban area small parks are predominant. Future acquisitions, as we attempt to keep pace with the need for park spaces, will likely be small as well. But overall, just keeping up with growth appears to be a serious challenge. Of the current 1857 acres of parks and open spaces in the county, 924 acres are Arlington parks, 38 acres are privately owned easements, 417 acres are National Park Service land, 136 acres are parks owned and managed by NOVA Parks, and 342 acres are on Arlington Public School property. From this we can create a rough estimate of the available county-owned public open spaces and parks in Arlington. Not all APS land is open or available for general public use. However, if we consider for the sake of argument that about half of APS land—175 acres—might have current or potential general public park space at least part of the time, we have a round total of 1100 acres of park/rec land as a rough starting point for looking ahead. The projected increase in Arlington’s resident population from 226,000 to 301,000 in 25 years is about 75,000, or 33 percent. A 33% increase in parkland comparable to the base figure of 1,100 acres is 360 acres. The PSMP parkland acquisition goal of 30 acres in ten years, if prorated for the full 25 years of the population projection at the same annual rate of 3 acres, totals 75 acres. So, even a sustained acquisition and expansion program under the PSMP goal produces only about 21 percent of the total additional park space that is required to maintain the current level.

This is clearly not the trajectory that most Arlingtonians desire, and clearly not a path toward healthy urban habitat for future residents. How should we address our critical future need for park space and everyday nature? The most obvious priority, of course, is to increase the actual land area available for recreational and casual/natural park space. This needs to be a fiscal priority and a focus of creative land use planning and development. Such additions could be achieved through land acquisition, land repurposing (reclaiming or reassigning uses for existing county land), increasing public access to current spaces that are not currently available (physically or legally) for use, and creating “new” usable land (by decking over infrastructure or making horizontal space such as rooftops useful for park/recreation purposes). It may involve a hard calculus of decommissioning some streets, or portions thereof, to encourage different transportation choices and reduce impermeable surfaces while restoring environmentally desirable open space. These are all worthwhile considerations. Some may require creative financing, and some may involve serendipitous opportunities that we must be prepared to pursue should they arise. The Public Spaces Master Plan contains an inventory of potential parcels for

acquisition. However, it is unlikely that all of these approaches combined will be sufficient to maintain the current level of per capita park space, and they will need to be supplemented by a companion strategy.

Fortunately, Arlington has an additional strategy available to help address the density and development challenge by ensuring that its built environment be as natureful, as parklike, and as biophilic as possible. A biophilic strategy under which each plan and proposal—public and private—should be imagined and scrutinized for what it can bring to residents and employees in the form of natural space is the necessary companion to the previously noted means of creating more natural public spaces. While every urban jurisdiction must aspire to have efficient services and a strong economy, it is vitally important that it is also a healthy human habitat. And that means employing biophilic planning and design principles in all development. These priorities are not at all incompatible. In fact, properly understood, they are symbiotic. But solidifying this as our concept of development will require a concerted and sustained effort.

Biophilic principles, which explain, guide, and justify the incorporation of natural features and spaces in our built environment, are the key to successful planning and design for all urban jurisdictions in the 21<sup>st</sup> century. Each project vision would include consideration of ways to create park space, open space, natural habitat, and nature corridors for residents to visit, sit in, walk through, or explore. From environmental projects to transportation infrastructure to new accommodations for residents and business, the opportunity to build successfully would be simultaneously understood as an obligation to bring natural resources into the design in a significant way. Doing this benefits our environment, our residents, and our legacy.

The ability to envision multivalued projects is largely a matter of awareness of, and imagineering with, biophilic principles. This is not fundamentally about what should be built, but about how the purpose of the build should be understood. An environmental management requirement can also be a nature park; a housing project can produce a pocket park or roof garden; a re-designed transportation corridor can create a nature trail, or even a park; and a retail area can be activated with a combination of respite and diverse interest, using natural features as the integrating design theme. In all cases, the value to residents, the community, and the environment of the result is significantly multiplied beyond that of a single-purpose concept. And, in all cases, a multivalued result provides additional benefit to the entity that produces it, in terms of its contribution to Arlington's livable spaces, and in terms of a recognition of local stewardship, enhancement of public interest, and return on financial investment.

A biophilic commitment is a win-win proposition for Arlington. It will create healthy habitat for residents, and combat the nature deficit inequities of our development. It will also support environmental and economic sustainability and resilience. Failure to embrace this strategy will lead to diminished livability and a diminished reputation for the county. The choice is clear—and the time to begin is now.

DHowell 8/12/19

\*Data sources include the 2019 Arlington Profile prepared by the Department of Community Planning, Housing and Development, and the 2019 Public Spaces Master Plan, prepared by the Department of Parks and Recreation and approved by the County Board in April 2019.