## SUSTASIS FOUNDATION AN OREGON 501(C)(3) PUBLIC BENEFIT CORPORATION REG. NO. 462867-95

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Judy Bardin City of Olympia Planning Commission 1517 Dickinson Ave NW Olympia, WA 98502

Dear Judy,

As we discussed, there are a number of research findings on the value of urban greenspace, not only in direct economic benefit for things like property values, but in other indirect economic benefits as well as human benefits. One of the most interesting is the apparent link to public health.

As promised, attached is a short "discussion piece" that reviews these findings and their policy implications. I hope you find these useful.

Best,

Michael Mehaffy Executive Director Sustasis Foundation

## The Surprisingly High Value of Urban Greenspace:

Overview of Recent Research

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Urban greenspace is almost always a popular amenity, and most people sense that it's an important asset in community development. But research suggests the return on investment is considerably higher than is commonly recognized. Furthermore, the benefits are not just in property values, but in many other areas – notably including public health. Among the findings:

**1.** *Economic benefit for the surrounding real estate.* A number of studies show the greater economic value of homes and businesses that adjoin greenspaces (Conway et al., 2010). In addition, studies also show a consistent economic benefit for wider areas, perhaps for whole cities, when they feature extensive greenspace (McPherson, 1992).

**2.** *Ecological benefits.* It is well known that greenspace contributes to improved air quality, and can reduce runoff of pollutants. In addition, greenspace can reduce solar gain in summer, reduce the albedo effect, and reduce urban heat island effects (Swanwick 2003; Irvine et al., 2010). While these factors are of greater concern in warmer climates, they do play a role in Western Washington.

**3.** Value in promoting walking and active recreation. Greenspaces have been shown to encourage walking and recreational activities, particularly in combination with a mix of destinations and uses (Barton et al., 2009). Of course it it intuitively obvious that a beautiful greenspace area will be more inviting to pedestrians and to those seeking recreation, and the research bears this out.

**4.** *Value in fostering psychological health.* There is intriguing evidence that greenspaces, and the presence of vegetation and natural areas more generally, play a powerful role in psychological well-being (Irvine et al., 2007; Fuller et al., 2010). Particularly in urbanized areas, greenspaces can provide relief from the psychological discomfort of unpleasant urban conditions. The research topic of "biophilia" – the apparent affinity for natural environments – is suggesting that this factor is much more important than we thought.

**5.** Value in fostering physical health related to stress. Even more intriguing, there is now compelling evidence that views of greenspaces can have measurable effects on physical health and well-being (Grinde and Patil, 2009; Heerwagen, 2009). In a classic study published in the journal *Science*, Ulrich (1984) demonstrated that recovery times in hospitals were markedly better, with fewer complications, when patients had a view of greenspaces. Subsequent studies have demonstrated this rather startling link in other settings outside of hospitals (e.g. Ulrich et al., 1991; Ulrich, 1999).

**6.** Value in promoting the well-being of children and other vulnerable populations. The above studies suggest that the impact on the well-being of children might be particularly great, and other research has borne this out (Charles and Louv, 2009). The investigator Richard Louv has coined the term "nature deficit disorder" to describe the rising number of children who do not have any meaningful access to natural environments, carrying serious implications for their health and well-being. There are similar implications for seniors, the disabled and other vulnerable populations (Jackson and Kochtitzsky, 2000).

This research is continuing to mature, but it is already clear that an evidence-based best practice will respond to the findings of this field, and place an active greenspace plan at the center of any urban development strategy.

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