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Effect of proximity to and view of, environmental land uses on property prices - A multidisciplinary review

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This paper provides a cross-disciplinary literature review of 'proximity to' and 'view of' eight different environmental amenity types on neighboring real property prices. The objectives of this paper are manifolds: first, it provides a comprehensive review of over 100 hedonic studies from five disciplines to understand variations in the marginal implicit price paid for homes near environmental amenities and how it differs from one amenity type to another? Second, this paper also identifies two most commonly used value capturing measurement variables, 'proximity to,' and 'view of,' amenities including their variants as used in the past hedonic studies (Mittal 2014). The appropriateness of variants used varies by the amenity type and its characteristics. This paper also presents analysis of characteristics similarities and differences amongst these eight amenity types explaining 'why' and 'how much' does the effect on property price varies across amenities and which variant of the two variables is most suited. This is the first attempt to compile a comprehensive review of literature from five disciplines across eight amenity types and provides a useful base for scholars interested in the topic. This review provides a useful insight to urban planners, real estate professionals and appraisers in understanding a range and variation in the marginal implicit price paid across environmental amenities.

The literature in this area is quite extensive and many scholars have also conducted reviews and meta-analysis, however with little consensus. Some of the notable studies include (Brander and Koetse 2011; Simons and Saginor 2006; McConnell and Walls 2005; Crompton 2005; 2001; Bourassa et al. 2004; Boyle and Kiel 2001; Fausold and Lilieholm 1999; Freeman III 1979). However, when it comes to

determining a reliable range of marginal price effect of environmental amenities on the neighboring property values, there is a lack of consensus amongst these scholars. The reasons for these variations are many: this is due variation and diversity in amenity types studied, local real estate markets studied, types and forms of measurement variables used, and diverse methodologies and models used. In this review, the environmental amenities have been grouped into two broad categories – 'recognizable amenities' and 'less recognizable amenities.' The former includes golf courses, waterfronts (ocean, lakes, and rivers), greenways and large parks while the latter includes miscellaneous open spaces around homes as explained later in this review. Two key variable have been used to measure this effect: Proximity and View.

"Proximity to" environmental amenity offers "Convenience Value" to homeowners and is measured by "distance to" amenity from homes. Proximity of golf courses, waterfronts, parks and naturally preserved areas with passive recreational opportunities, urban parks are highly valued by amenity seeking homeowners. Proximity of such amenities offers convenience values to home owners as they can easily access and participate in the activities that are housed in the environmental resource without incurring any extra time, costs or additional efforts. Similarly, "View of" environmental amenity offers "Aesthetic value" to homeowners and is measured by "view of" amenity by quality of view, extent of view available or not, both in terms of angle of view and span of view. When the two measures -- "Proximity to" and "visibility of" environmental amenity are combined, then they have the greatest effect on the marginal implicit price of homes (paid as amenity premium) for consuming such amenity benefits. The "Prospect refuge" theory also confirmed this. Extended and adjacent view of golf courses, extended view of waterfronts such as lakes, oceans and rivers, and parks both offer opportunity for homeowners enjoy the aesthetic landscape at the convenience of their homes. High quality surroundings near homes are preferred by home owners. It is measured by "Percentage availability of such high quality amenities" with in a defined radius of a home in its surrounding areas.

Using interdisciplinary literature review from various disciplines such as real estate valuation, land use planning, geography, reginal science, and natural resource management literature, this paper provides a useful insight to city planners, real estate

professionals and appraisers. Planners can use the findings and can confidently plan environmental land uses and estimate potential gains in property tax revenues due to incremental changes in neighboring property values; real estate developers and investors can use the synthetic insights and plan their new developments around amenity generating land uses to capture and pass the hedonic values to their end users; appraisers can also use the findings to derive price adjustments required for appraising houses located around such environmental amenities.

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