

Impacts of VNT Development Alternatives on Park/Trail/Open Space Services



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Ecological and Economic Services Provided by Park and Trail Systems

Property Values

Tourism Values

Direct Use Value

Health Value

Community Cohesion Value

Storm Water Management

Air Quality

Property Values – Connected Centers (-Same)

Increased property values within mixed use centers. Small park areas surrounded by mixed use centers would have minimal impact on regional property values as a whole.

Increased property values along regional trail corridors connecting mixed use centers however most trail corridors will be located along unused rail lines and utility easements. Minimal impact to existing residential properties.

Property Values – Return on Investment (++)Improves Greatly)

Focus on improving existing park and trail infrastructure could have significant impact on surrounding property values. Example: Woodall Rogers Deck Park, Belo Park, Main Street, Trinity River Corridor Projects

Encourages expansion of existing trail networks, encourages new development around improved parks.

Property Values – Diverse Distinct Communities (-Improves Slightly)

Focus on improving existing park and trail infrastructure could have significant impact on surrounding property values. Encourage community park development that reflects community character.

Does not encourage trail connectivity between diverse distinct communities.

Property Values – Green Region (++Improves Greatly)

Emphasis on identifying natural assets that could provide 'green infrastructure' would lead to larger regional parks. Perimeter developments could benefit from increase property values. Connectivity with usable green infrastructure parks is critical.

Encourages new development to embrace existing open spaces and should increase property values within these new developments

Encourages retrofits of existing developments, daylighting of creeks, trail and sidewalk enhancements, roadway improvements, etc.

Encourages expansion of regional trails through larger open spaces to provide connectivity between perimeter developments.

Tourism Values – Connected Centers (-Same)

Tourism values increase based on new mixed use infill developments would be negligible.

Provides higher density retail locations that would draw some tourism revenue but lacks emphasis on development of iconic parks such as Millennium Park in Chicago.

Tourism Values – Return on Investment (++Improves Greatly)

Focus on improving existing park and trail infrastructure could have significant impact on tourism values. Attracts festivals and other large events. Examples: Woodall-Rogers Deck Park, Trinity River Corridor Projects

Expansion of trail network could attract national race events and therefore boost tourism revenue. (hotel bookings, etc)

Tourism Values – Diverse Distinct Communities (-Improves Slightly)

Diverse Distinct Communities could increase tourism values by improving existing park areas that could host regional and national events. (Grapefest, Stockyards, State Fair)

Tourism Values – Green Region (++Improves Greatly)

Development of large regional park and trail systems could serve as a catalyst for boosting tourism to the area. (Ex. Balboa Park in San Diego)

Expansion of trail network could attract national race events and therefore boost tourism revenue. (hotel bookings, etc)

Direct Use Values – Connected Centers (-Same)

Small parks associated with dense mixed use developments do not increase recreational opportunities for the region.

Direct Use Values – Return on Investment (++Improves Greatly)

Focus on improving existing park and trail infrastructure could have significant impact on direct use values. Emphasis on improving existing recreational facilities will provide more opportunities for cities to generate revenue from direct use. (Soccer tournaments, boating, fishing, fitness programs, etc)

Expansion of trail network boosts direct recreational use but is not a key revenue generator.

Direct Use Values – Diverse Distinct Communities (+Improves)

Emphasis on improving recreational facilities within diverse distinct communities would increase direct use values.

Direct Use Values – Green Region (++Improves greatly)

Focus on creation of large regional parks could increase direct use values substantially. Activities such as hiking, camping, and other destination outdoor activities could be provided locally whereas now most of these direct use values are lost to neighboring regions and other States.

Requires regional initiative to identify those areas within “local” distance that are large enough and that have the ecological/landscape value that provide that special destination to encourage camping and hiking.

Health Values – Connected Centers (-Same)

Small parks associated with dense mixed use developments do not significantly increase the level of physical activity.

Health Values – Return on Investment (++)Improves Greatly)

Focus on improving existing park and trail infrastructure could have significant impact on health values. Emphasis on improving existing recreational facilities will provide more opportunities healthy physical activity for citizens.

Expansion of trail network boosts direct recreational use and therefore improves health values.

Health Values – Diverse Distinct Communities (+Improves)

Emphasis on improving recreational facilities within diverse distinct communities could facilitate and encourage healthy recreational .

Health Values – Green Region (++Improves Greatly)

Focus on creation of large regional parks could increase diversity and availability of healthy recreational opportunities. Having a local area that provides for mountain biking, kayaking, hiking, and other diverse activities would increase the physical activity of the citizens.

Community Cohesion Values – Connected Centers (-Same)

Emphasis on high density mixed use developments along transit corridors will not substantially increase community involvement efforts. There may be some increased involvement associated with connecting trail systems.

Community Cohesion Values – Return on Investment (++)Improves Greatly)

Focus on improving existing park and trail infrastructure would provide more opportunities for community groups to volunteer and create connections with their surroundings. (Adopt a Stream, Friends of Katy Trail, Etc)

Community Cohesion Values – Diverse Distinct Communities (-Same)

Emphasis on improving recreational facilities within diverse distinct communities could facilitate and encourage healthy recreational .

Community Cohesion Values – Green Region (++Improves Greatly)

Focus on improving existing park and trail infrastructure and creating new regional parks would provide more opportunities for community groups to volunteer and create connections with their surroundings. (DORBA, Audubon Society, Etc)

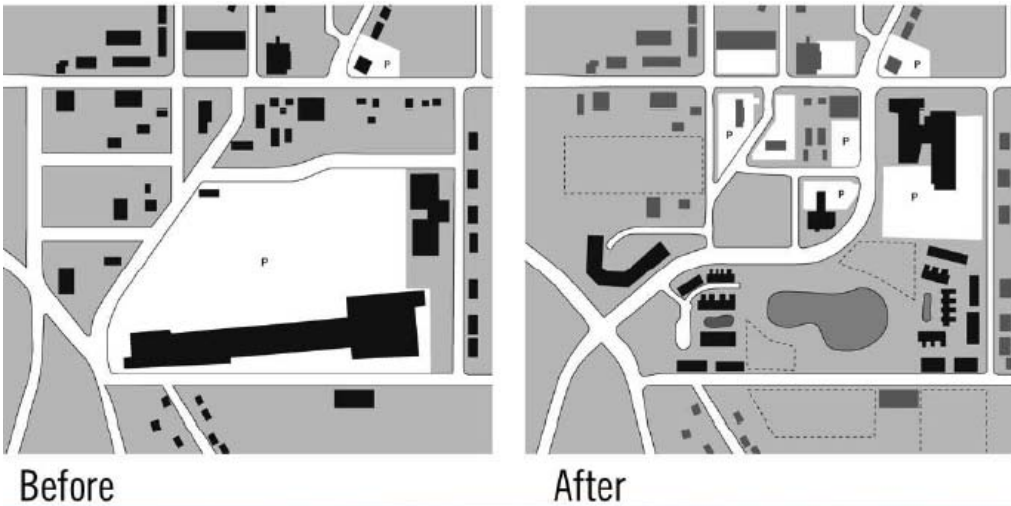
Storm Water Management – Connected Centers (- Improves Slightly)

Development of high density mixed use developments along transit corridors may provide some opportunities to daylight drainage features to use as amenities with some water quality and quantity components (see examples on next slides).

Storm Water Management – Return on Investment (++Improves Greatly)

Emphasis on infill developments and retrofit of existing storm water management systems offers great opportunity to enhance both quantity and quality management of urban storm water runoff. This also provides many opportunities to daylight drainage features to use as amenities and address flooding and water quality needs.

Tactic #2: Environmental Repair – Wetlands & Creeks

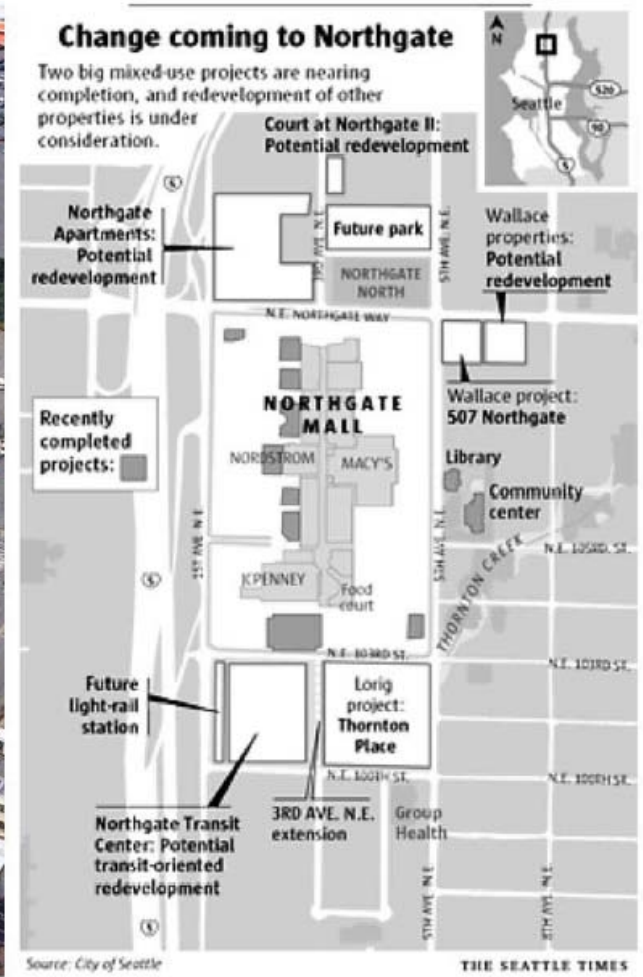


Phalen Village, St. Paul, MN
from shopping center to wetland
University of Minnesota CALA (Dowdell, Fraker, Nassauer) and City of St. Paul



Photos (Clockwise from top left):
Diagram from *Retrofitting Suburbia*
(Wiley, 2009), Mary Losure, Mary Losure,
Ellen Dunham-Jones

Tactic #2: Environmental Repair – Wetlands & Creeks



Daylighting, Thornton Creek in Northgate Mall Parking Lot, Northgate WA
LEED-ND pilot program

Storm Water Management – Diverse Distinct Communities (-Same)

This scenario may provide some opportunities to retrofit existing parks within each community to provide localized storm water management value.

Storm Water Management – Green Region (++Improves Greatly)

The Green Region scenario offers the most opportunity to create and restore regional storm water management facilities. These larger facilities would provide added value by improving flood management, sediment and erosion control, and increased canopy and open space.

Air Quality Value – Connected Centers (-Improves slightly)

Emphasizes mass transit and reduce VMT. Each center must truly embrace 'Live-Work-Play'. Each center must have some unique qualities to justify connectivity and encourage mass transit use.

Air Quality Value – Return on Investment (+Improves)

Focuses redevelopment within existing urban centers. Strives to reduce sprawl. Retrofit of existing buildings/structures with green roofs, energy efficient design, etc will reduce carbon footprint.

Air Quality Value – Diverse Distinct Communities (-Same)

Add notes

Air Quality Value – Green Region (++)Improves Greatly)

By preserving and expanding urban forests and regional parks this will maintain and potentially increase canopy.

Indicator	Scenario Change from Business as Usual			
	Connected Centers	Return on Investment	Diverse Distinct Communities	Green Region
Property Value	- Same	++Improves greatly	- Improves slightly	++ Improves greatly
Tourism Value	-Same	++Improves greatly	-Improves slightly	++ Improves greatly
Direct Use Value	-Same	++Improves greatly	+Improves	++Improves greatly
Health Value	-Same	++Improves greatly	+Improves	++Improves greatly
Community Cohesion Value	-Same	++Improves greatly	-Same	++Improves greatly
Storm Water Mgt Value	-Improves slightly	++Improves greatly	-Same	++Improves greatly
Air Quality Value	-Improves slightly	+Improves	-Same	+Improves

The Trust for Public Land – “Measuring the Economic Value of a City Park System” 2009



Parks and Trails

- Property Value
- Tourism Value
- Direct Use Value
- Health Value
- Community Cohesion Value
- Storm Water Management
- Air Quality

Parks and Trails

- Property Value
 - Proximate value measured up to 2,000 feet from a large park
 - Most value realized within 500 feet
 - Average value added to neighboring properties is 5%
 - Must consider the quality of the park
 - Problematic parks decrease value
 - Premium parks increase value more than 5%
 - Use GIS mapping as a tool to estimate increased tax revenues
 - Quantify added tax revenue attributable to City parks and trails
 - Maximizing proximity of commercial and residential properties to parks and trail maximizes realized tax revenues

Parks and Trails

- Income from Tourism
 - Central Park, Millennium Park, Balboa Park
 - Visitor spending data from local Chambers of Commerce
 - Day visitors and overnight visitors
 - Calculated for City parks that are major draws for out of town visitors
 - Are there major parks in North Texas that boost tourism?
 - Quantify added tax revenue based on visitation estimates and approximate spending

Parks and Trails

- Direct Use Value
 - Direct uses with tangible value: team sports, biking, hiking, picnicking, etc.
 - “Willingness to pay”: How much would someone pay for activities provided?
 - “Unit Day Value”, US Army Corps of Engineers
 - Value estimates savings for citizens
 - Not like a tax or tourism revenue but is quantifiable

Parks and Trails

- Health Value
 - Economic burden of physical inactivity
 - Access to parks increases individuals level of activity
 - “Parks Health Benefits Calculator”
 - \$250.00 annual savings for significant park users, \$500.00 for seniors
 - Estimated annual health value for City of Sacramento Parks = \$20,000,000

Parks and Trails

- Community Cohesion
 - Parks and the activities provided increase social capital
 - Economic value of social capital cannot be directly measured
 - Contributions to 'friends of parks' groups and other agencies tallied (includes time value of volunteering efforts)
 - Estimated annual health value for City of Philadelphia Parks = \$8,600,000

Parks and Trails

- Stormwater Management
 - Parks act as large pervious storage areas
 - Reduce burden on storm water management systems
 - Regional analysis to quantify the reduction of stormwater runoff from park systems
 - Assign a per gallon cost for managing stormwater via hard infrastructure
 - Apply this value to determine economic stormwater management value of parks
 - Estimated annual stormwater retention value for City of Philadelphia Parks = \$6,000,000

Parks and Trails

- Air Quality Improvement
 - Quantify air pollution removal by park systems
 - US Forest Service – Urban Forest Effects model
 - Use GIS mapping to determine urban forest cover on public parklands
 - Use regional data to determine pollutant loading “flux”
 - Estimates pollutant removal
 - Quantify removal value by it’s ‘externality value’.
 - Estimated annual air pollutant removal value for Washington D.C. Parks = \$19,900,000
 - Access to trail networks and the associated reduction in Vehicle Miles Traveled can also be incorporated into this value