



Tradeoffs of Density Literature Overview

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International TDC Workshop



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Introduction

- Shift to favouring low density development
- Urban sprawl is a common term to describe typical modern growth pattern
- Factors contributing to low density development include growing population, rising incomes, falling commuting prices (Brueckner 2000)
- Low versus High Density
 - Pros and Cons





Low Density

Positive Outcomes

- Public preference for low density (CV=8 to 10 Euros per person; (Garcia & Riera 2003; Carrion-Flores & Irwin 2004))
- Close to environmental amenities
- Affordability
- Better services/proximity to services
- Jobs in suburbs becoming more available



<http://coldjazz.blogspot.com/>





Low Density

Negative Outcomes

- Impaired health (Ewing et al. 2003 etc)
- Decreased social capital (Brueckner 2000, Brueckner & Largey 2008)
- Perceived loss of open space (O'Toole 2004)
- Increased air pollution (Brueckner 2000, Frumkin 2002)
- Disparity between classes or race (Frumkin 2002)
- Low neighbourhood satisfaction (Levine & Frank 2007)



<http://www.urbanphoto.net/blog/2007/01/page/2/>





High Density

Positive Outcomes

- Negative outcomes from low density reversed
 - Improve health (Frank et al. 2004)
 - Increase social capital (Brueckner & Largey 2008)
 - Decrease loss of open space (Brueckner 2000; Garcia & Riera 2003)
 - Improve local environment (Garcia & Riera 2003)



<http://www.greenplaybook.org/neighborhoods/act/characteristics/density.htm/>





High Density

Negative Outcomes

- Low neighbourhood satisfaction (Howley et al. 2009)
- Lower preference (O'Toole 2004)
- Higher housing costs (Brueckner 2000; O'Toole 2004)
- Under supplied (Levine & Frank 2007)



<http://www.flickr.com/photos/christopherdewolf/261996585/>





Factors Affecting Developers' Decisions

- Developers may not develop to meet restrictions/density regulations
- Influencing factors:
 - Size of subdivision
 - Proximity to similar and other land uses (e.g. residential, agricultural, industrial, commercial)
 - Accessibility to roadways, sewers, town centers, public and private services
 - Additional development costs (e.g. TDC price, impact cost)
 - Geographical features

Reference: McConnell et al. 2006



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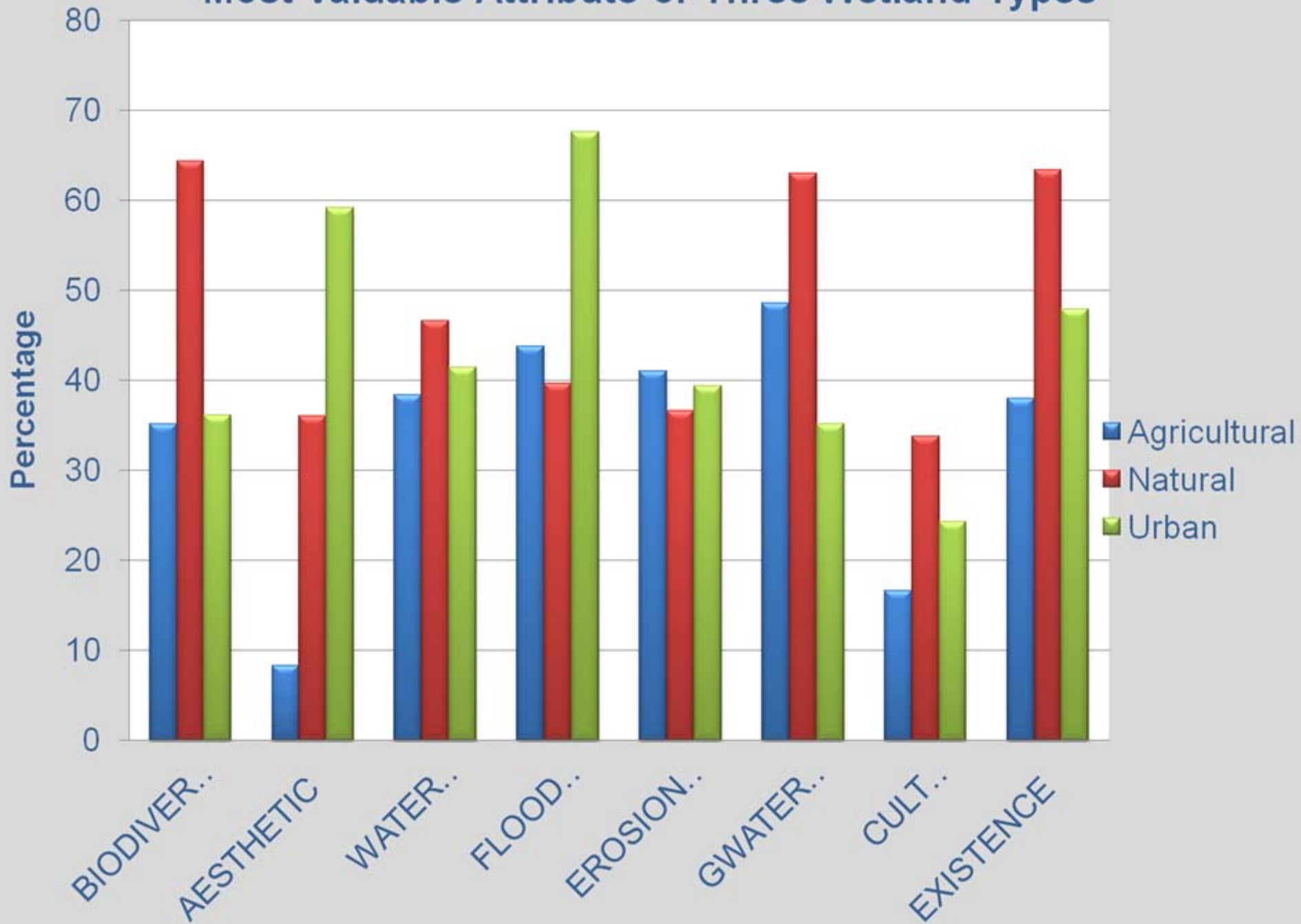


Choice Experiment

- Stated preference survey to understand tradeoffs of preferences with respect to development
- Attributes
 - Density related
 - Environmental



Most Valuable Attribute of Three Wetland Types





Thank you



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