Towards A Green Building & Infrastructure Investment Fund

Review of Challenges and Opportunities
SUMMARY PRESENTATION

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Compass Resource Management Ltd.

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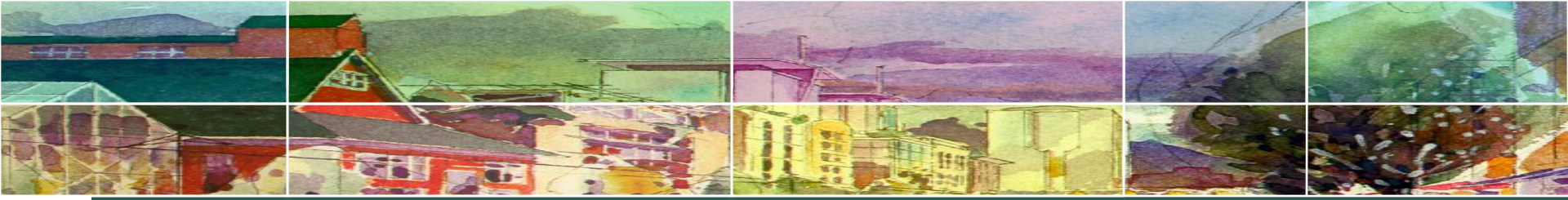
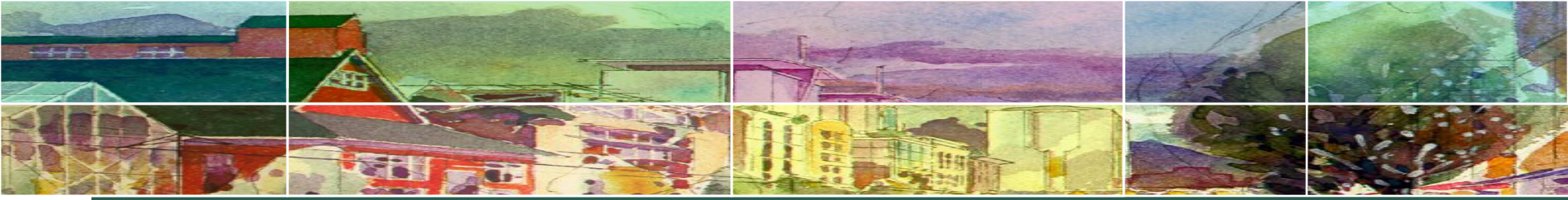
Compass Resource Management



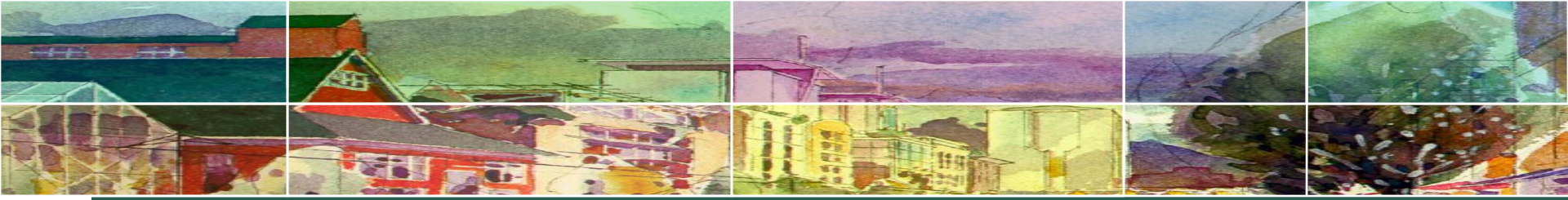
Outline

- Project Overview
- Methodology
- Summary Findings



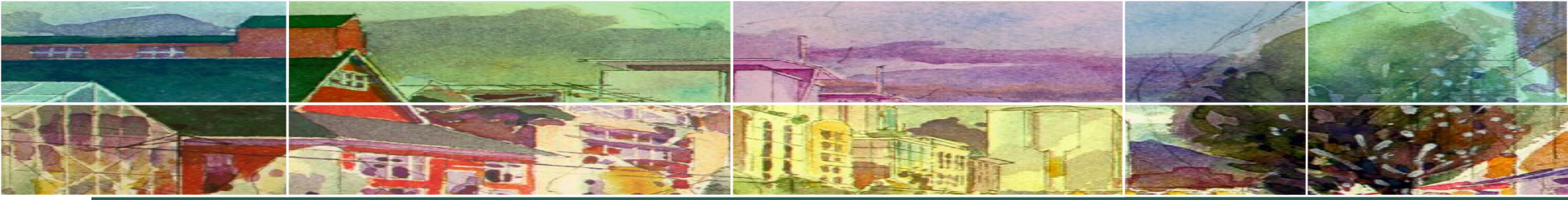
Project Overview

- Project sponsors:
  - The City of Vancouver,
  - Vancouver Organizing Committee for the 2010 Olympic and Paralympic Winter Games (VANOC),
  - Vancity,
  - BC Hydro
  - Tides Foundation
- Project purpose:
  - Identify issues and opportunities for a fun to invest in and/or finance green buildings and infrastructure projects.
- Project scope:
  - Identify typical premium for green construction,
  - Calculate representative potential investor returns,
  - Identify best means of recouping investment,
  - Assess magnitude of available opportunities,
  - Identify challenges and opportunities for an investment fund.
- Compass Resource Management was engaged to conduct to conduct the preliminary scoping study. Compass was assisted in the analysis by MK Jaccard and Associates.



Definition of Green Buildings and Infrastructure

- Buildings are one of the largest consumers of resources on the planet.
- Green buildings and infrastructure are very generally defined as developments that use fewer resources, produce less waste, and have superior indoor air and other qualities.
- Study focuses on “discretionary” construction practices – i.e., changes not required by law.
- The most common discretionary certification standard for green buildings in North America is the Leadership in Energy and Environmental Design (LEED) system.
- LEED is a standardized credit-based system in which individual buildings can receive varying levels of LEED accreditation according to building performance.
- No standard for green infrastructure, although some indirect linkages to infrastructure in the LEED system.



Project Methodology

1 Typical premium for green construction

2 Typical performance of green construction

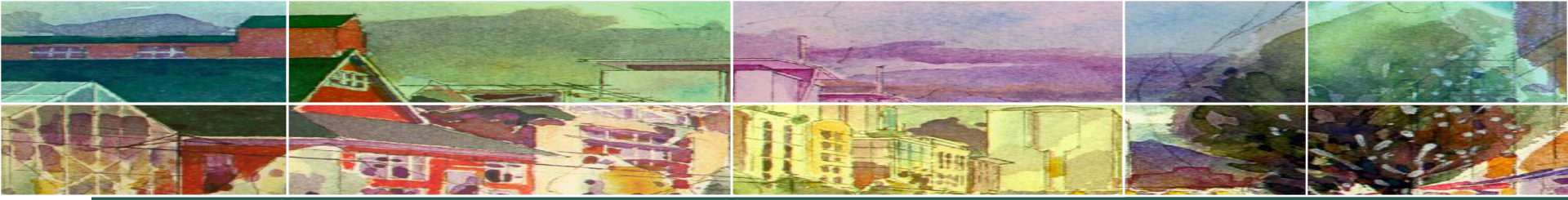
3 Potential investor returns

4 Possible mechanisms for recouping investments

5 Magnitude of investment opportunities

6 Challenges & opportunities for an investment fund

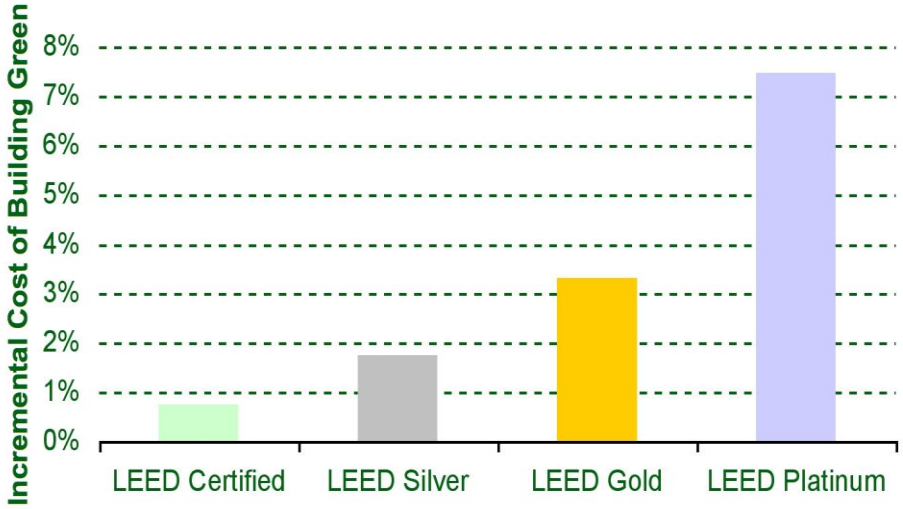
- Representative analysis based on construction costs and utility rates in B.C.
- Costs and returns are based on the Leadership in Energy and Environmental Design (LEED) standards.
- Created a database of costs and energy / water savings from actual / modelled projects.
- Conducted interviews to identify opportunities to identify challenges and opportunities.

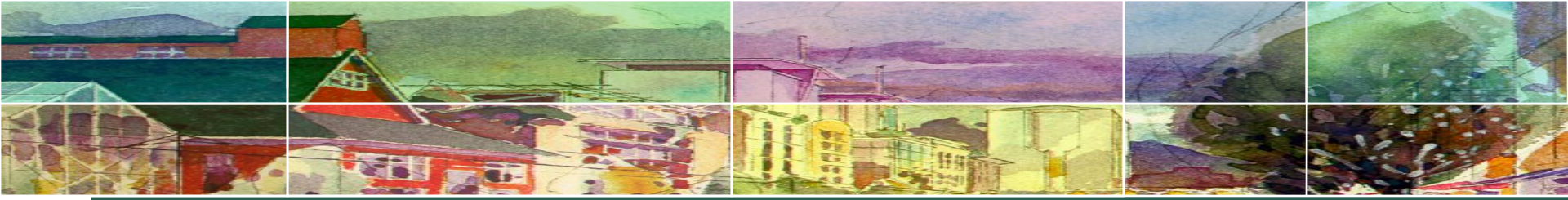


1. Financial Premium for Green Construction

- **Typical premium for green construction**
- Typical performance of green construction
- Potential investor returns
- Possible mechanisms for recouping investments
- Magnitude of opportunities
- Challenges & opportunities for an investment fund

- Based on (i) surveys of building owners and (ii) modelling of green building costs, <u>average</u> reported green premium for new construction ranges from < 1 - 8%, depending upon the level of certification.
- Costs for retrofits cannot be readily generalized but retrofitting existing buildings to achieve comparable performance is typically more costly.
- Studies suggest these incremental costs can be minimized through appropriate incorporation of green building practices throughout the design and construction process.

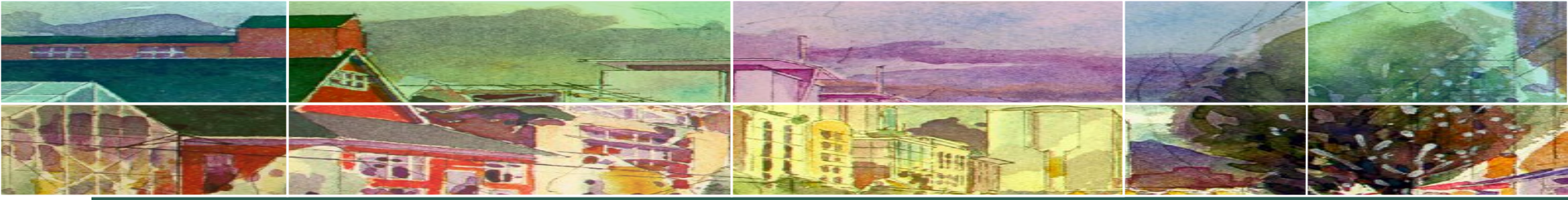




2. Performance of Green Buildings - Energy

- Typical premium for green construction
- **Typical performance of green construction**
- Potential investor returns
- Possible mechanisms for recouping investments
- Magnitude of opportunities
- Challenges & opportunities for an investment fund

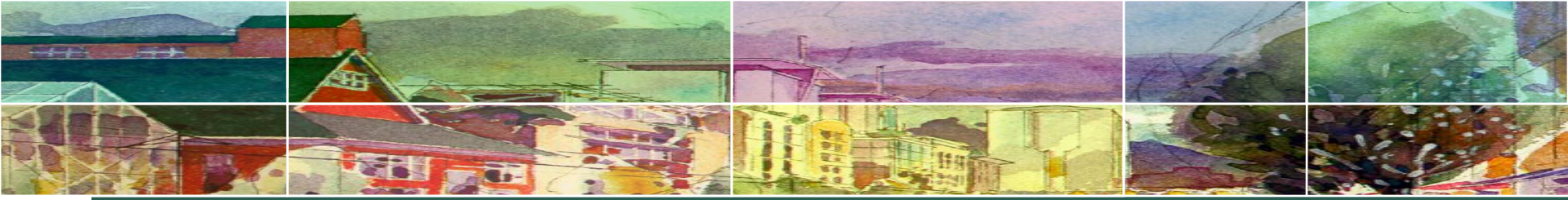
- Although LEED provides credit for many types of performance improvements, energy and water savings provide the most direct financial benefits.
- Typical energy savings for different levels of certification:
  - LEED Certified: 24%
  - LEED Silver: 33%
  - LEED Gold: 47%
  - LEED Platinum: 60%



2. Performance of Green Buildings - Water

- Typical premium for green construction
- **Typical performance of green construction**
- Potential investor returns
- Possible mechanisms for recouping investments
- Magnitude of opportunities
- Challenges & opportunities for an investment fund

- The LEED system awards points for both indoor and outdoor water conservation.
- On average, LEED buildings in British Columbia and Canada have reduced indoor water consumption by almost 30% compared to normal practice.
- On average, LEED buildings in British Columbia and Canada have reduced outdoor potable water consumption by 50 - 90% compared to normal practice.



3. Potential Investor Returns

Typical premium for green construction

Typical performance of green construction

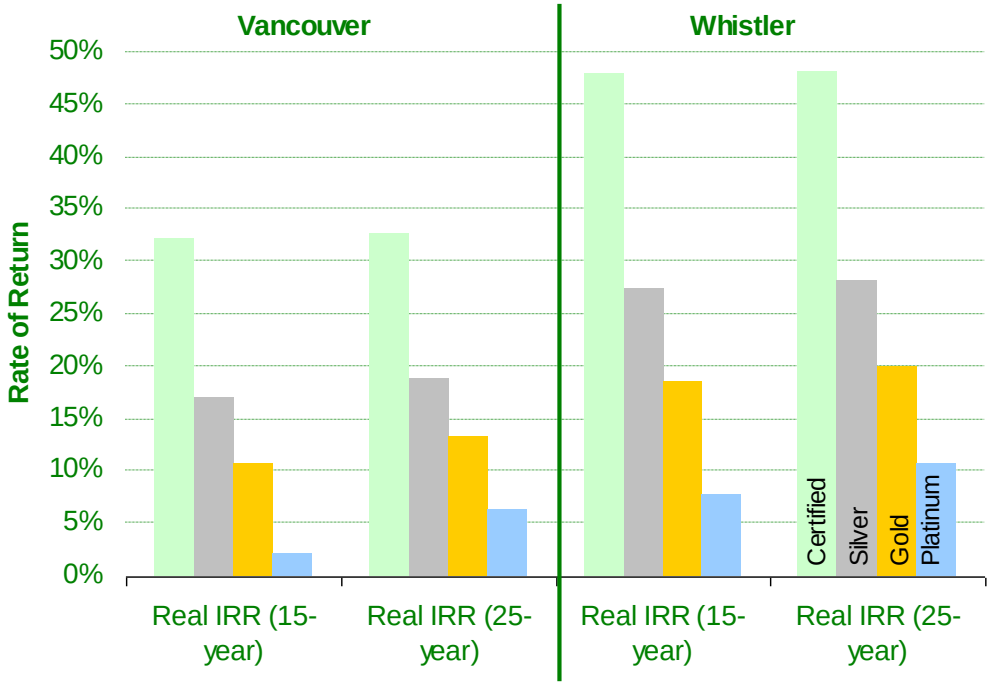
Potential investor returns

Possible mechanisms for recouping investments

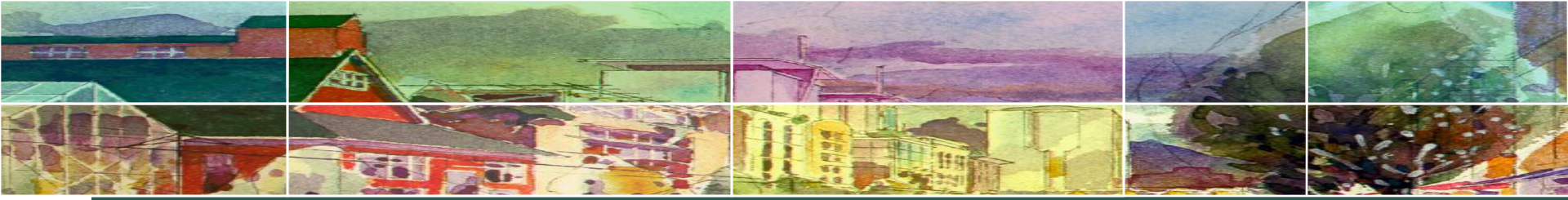
Magnitude of opportunities

Challenges & opportunities for an investment fund

- Cash flow analysis to calculate representative long-term IRR and payback on incremental investment associated with different levels of LEED certification.



Returns based on incremental costs and savings only and exclude any effects of leverage, taxes or other government incentives, where these exist.



4. Mechanisms for Recouping Investments

Typical premium for green construction

Typical performance of green construction

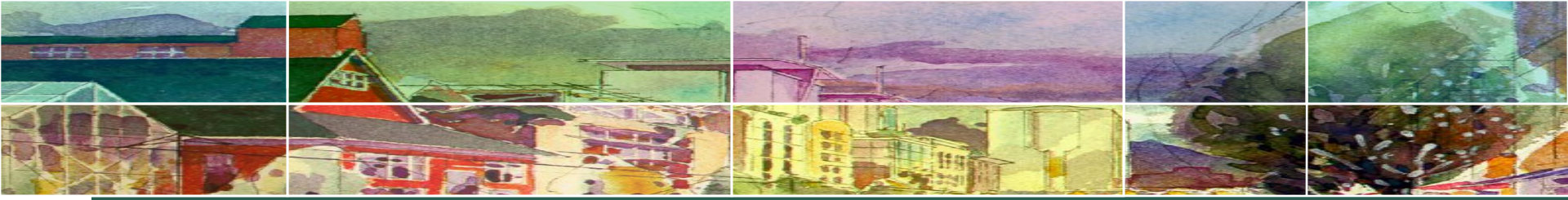
Potential investor returns

Possible mechanisms for recouping investments

Magnitude of opportunities

Challenges & opportunities for an investment fund

- Although returns seem reasonable, these returns do not necessarily translate immediately into higher asset value.
- As a result, it is often difficult for green developers to justify and capture a green premium through the sales value for their buildings.
- With ongoing ownership a long-term investor is more likely to recoup the premium through lower operating costs and/or higher rents from occupants.
- There are also other innovative mechanisms to recover the premium for green construction. These include:
  - Green performance contracting
  - Green lending
  - Green leases and lease purchase agreements for equipment
  - Establishing utilities to own and operate equipment / services



5. Magnitude of Investment Opportunities

Typical premium for green construction

Typical performance of green construction

Potential investor returns

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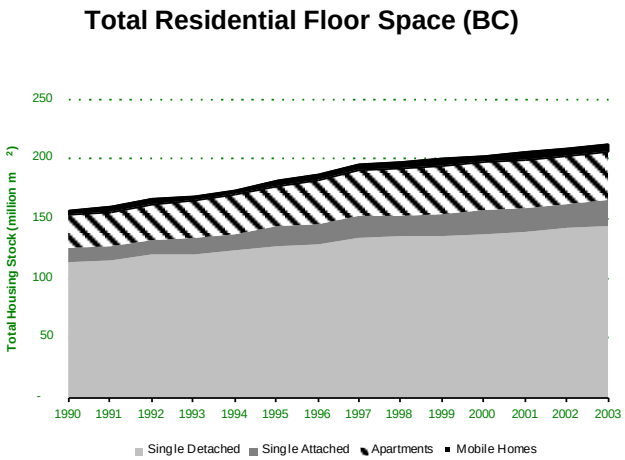
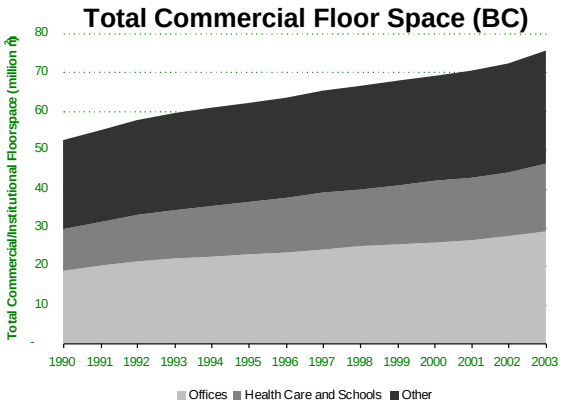
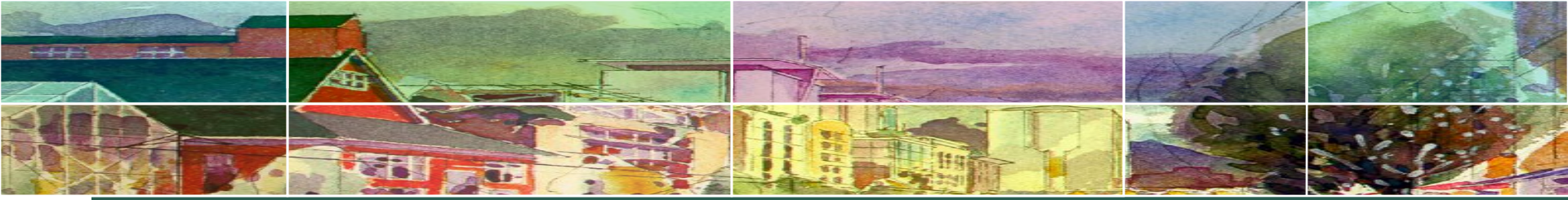
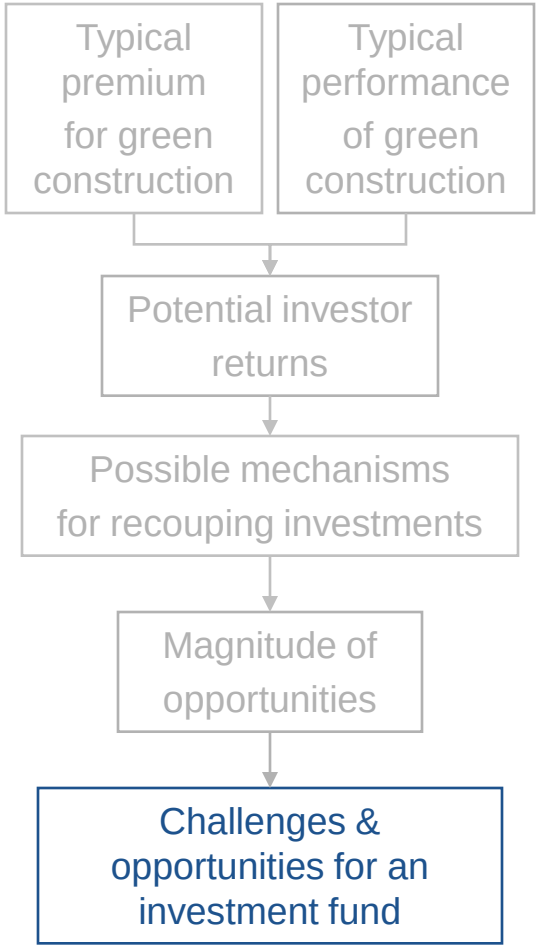




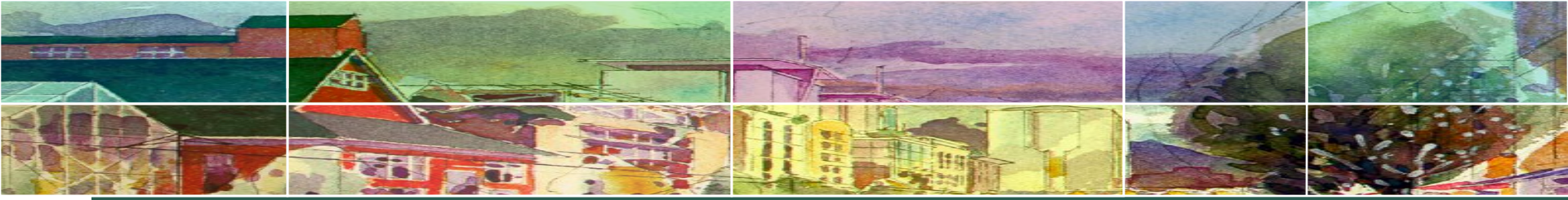


6. Challenges & Opportunities for a Fund



Investor Demand

- Socially responsible investors are defined as those who integrate social and environmental considerations in their investment decisions.
- There is an estimated $504 billion in funds in Canada managed according to socially responsible investment guidelines as of June 2006.
- Real estate is an important asset class to include in a well-diversified investment portfolio but still few socially responsible real estate funds (also called “responsible property investing” or RPI)
- Several green building funds have recently been established in the U.S., most notably the recently announced Hines Calpers Green Investment Fund. No similar funds currently exist in Canada.
- Green property investments of the type identified here could also appeal to conventional investors with longer investment time horizons (e.g., pension funds).



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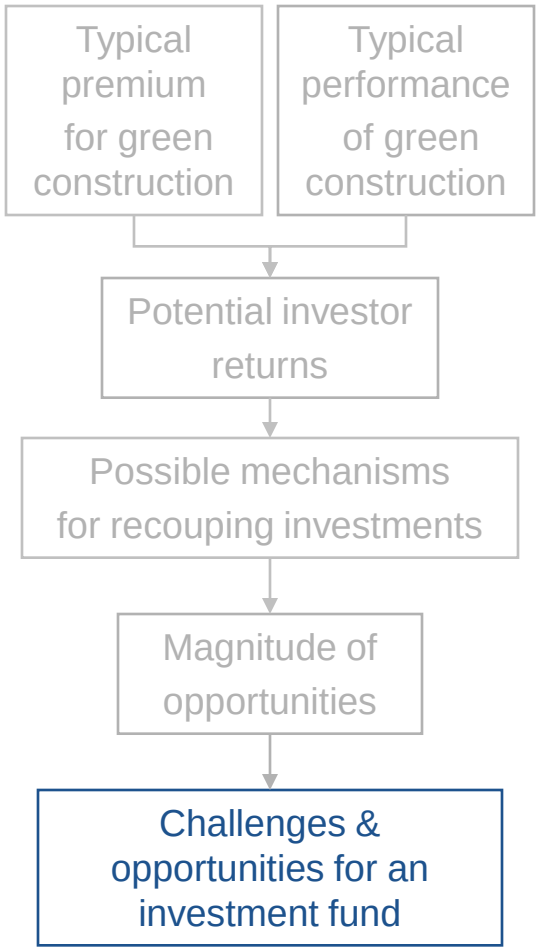
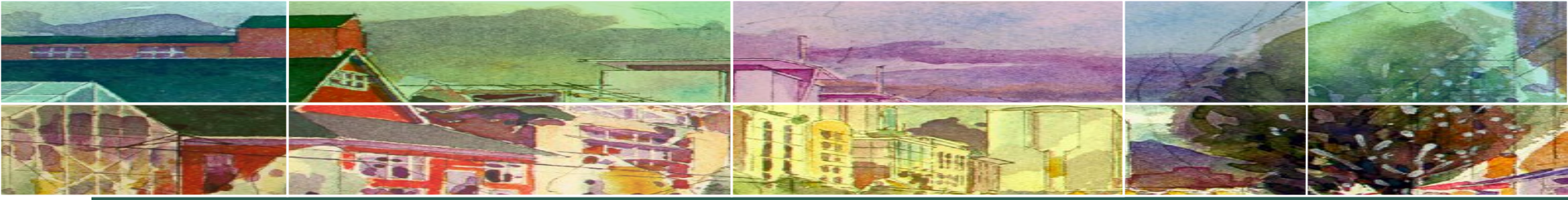


The Need for Capital

- Green development is still a small (but growing) portion of total development activity.
- Green developers have not had much trouble accessing capital.
- Issue is how to recover premium.

Fund Focus

- Most likely ways for investors to recoup their investment is through long-term ownership of green buildings (e.g., office, retail, rental housing and/or social housing) or specific assets within a green development (e.g., equipment or utility infrastructure).
- The lack of existing green properties that could be acquired suggests a fund would need to be involved in the development of new buildings.
- Green lending is unlikely to attract above-market rates of return and a large focus on green lending would likely not be sufficient to justify the overheads associated with a new investment fund.



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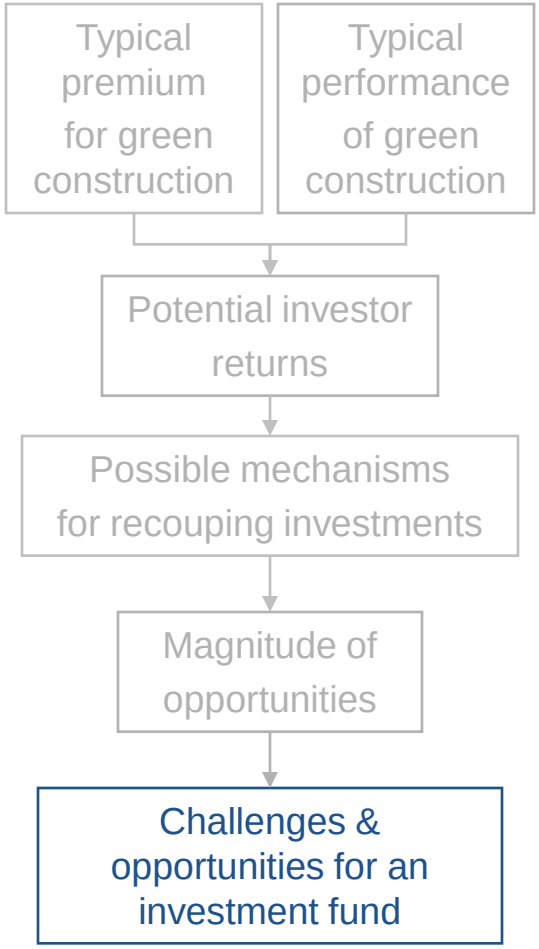
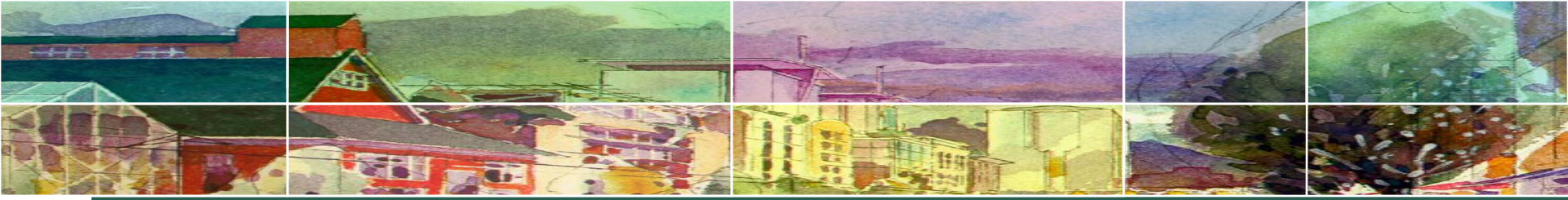


Implementation Issues

- Minimum size and level of diversification (geographic and project type) to absorb set-up and ongoing administrative costs, and to mitigate investment risks.
- A minimum capitalization of $100 million is likely required – to cover overheads and allow diversification.
- Large anchor investor will be required.
- The fund should initially focus on institutional investors.
- Given the limited number of existing green buildings, a partnership with a developer is likely required.
- A partnership with a large renter of retail or office space and with a corporate commitment to lease green premises could provide significant stability and credibility.
- Government could play a role in establishing a fund either as an investor or through tax credits and guarantees to encourage investment.
- Given the current real estate cycle, now may not be the time to be developing new properties but there is considerable work to do in order to get commitments from investors and develop investment criteria and opportunities.
- There are few remaining opportunities to leverage investments for the 2010 Olympics to help in establishing a new fund.



In Conclusion

- There is demand for a product:
  - Institutional investors with long time horizons (initial focus).
  - Retail investors with long time horizons and/or social and environmental screens.
- Minimum fund size: $100 million.
- Returns are there:
  - Market-based returns possible for investors with long time horizons at lower levels of certification.
  - Some trade-off between financial return and social / environmental return at higher levels of certification.
- Fund will benefit from possible partnership:
  - Developer (limited product currently available)
  - Large anchor tenant for properties (ideal)
  - Government (credits for green attributes)