

# **Key Elements of Sustainability**

- 1. Vision
- 2. Results orientation



- 3. Strategic financing orientation
- 4. Adaptability to changing conditions
- 5. Broad base of community support
- 6. Key champions
- 7. Strong internal systems
- 8. Sustainability plan



# Shift from Being <u>Reactive</u> or <u>Responsive</u> - to Proactive

**Develop a Shared Understanding and Vision** 



Regional Planning partners

Darin Dinsmore phone: 530-277-0196 darindinsmore@gmail.com www.regionalplanningpartners.com

8

# **Ecological Footprint**

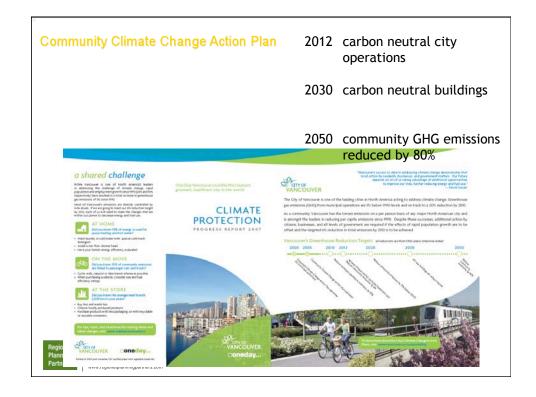
The ecological footprint is a measure of human demand on the Earth's ecosystems. It compares human demand with planet Earth's ecological capacity to regenerate it. It represents the amount of biologically productive land and sea area needed to regenerate the resources a human population consumes and to absorb and render harmless the corresponding waste

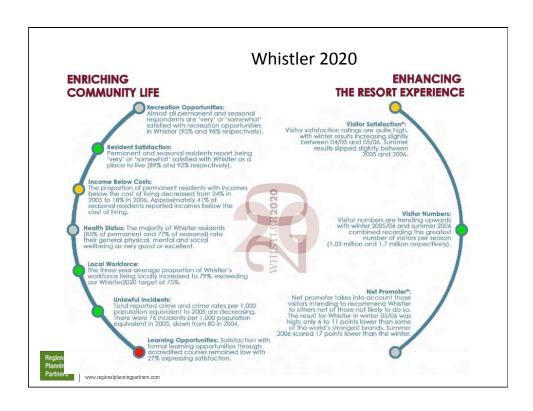
First academic publication about the ecological footprint was by William Rees in 1992. The ecological footprint concept and calculation method was developed as the PhD dissertation of Mathis Wackernagel, under Rees at the University of British Columbia in Vancouver, Canada, from 1990-1994. In early 1996, Wackernagel and Rees published the book Our Ecological Footprint: Reducing Human Impact on the Earth.[7]

Regional Planning Partners Darin Dinsmore
phone: 530-277-0196
darindinsmore@gmail.com
www.regionalplanningpartners.com







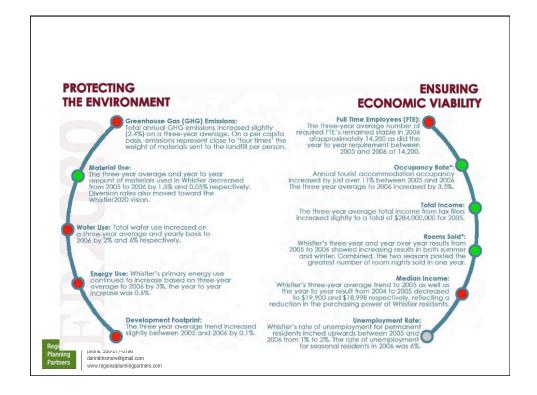








Regional Planning Partners Darin Dinsmore phone: 530-277-0196 darindinsmore@gmail.com www.regionalplanningpartners.com



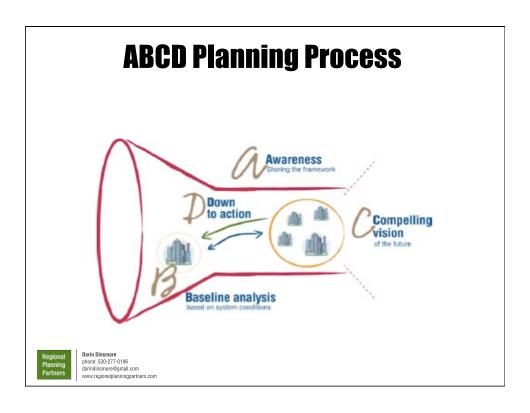




# The Natural Step Framework

- The Funnel as a Metaphor
- The System Conditions for Sustainability
- Backcasting from Principles
- A Four-stage "ABCD" Strategic Planning Process



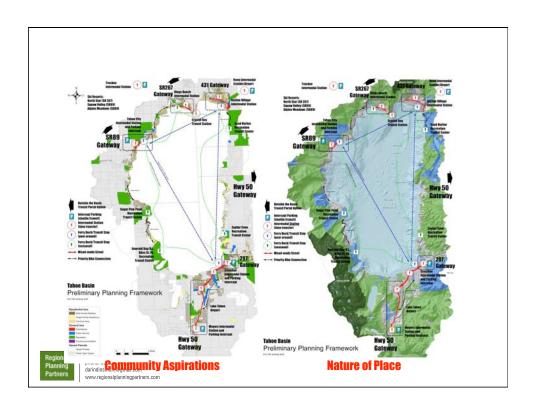


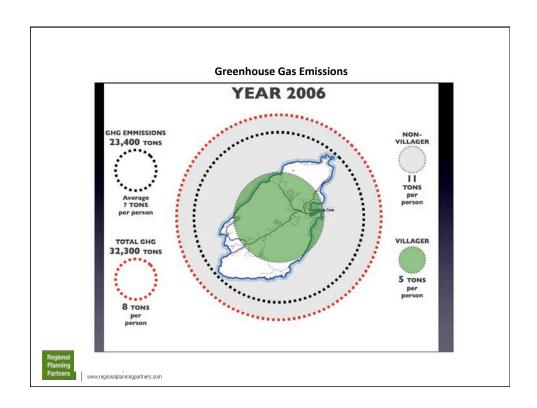
# **Backcasting from Principles**

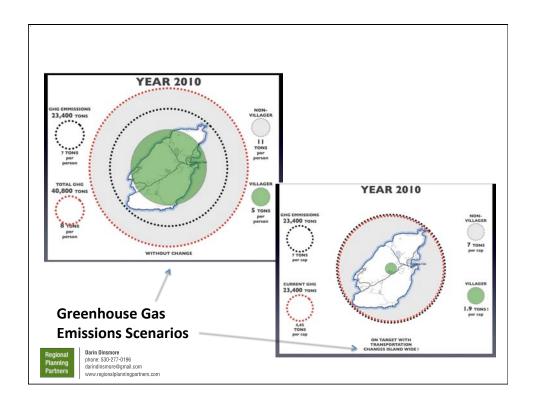
A methodology for planning that involves starting from a description of a successful outcome, then linking today with that successful outcome in a strategic way: what shall we do today to get there?











# **Planning for Sustainability**

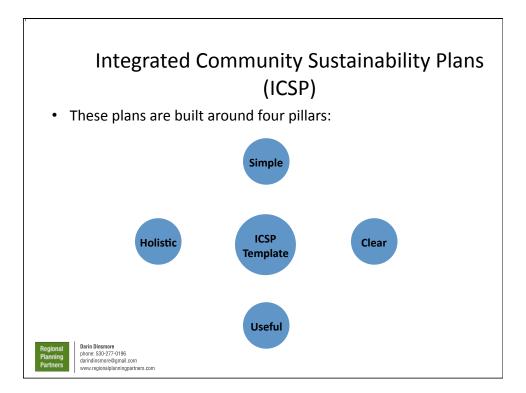
- Approaches
- Case Studies



Sustainable development is development that delivers basic environmental, cultural, social and economic services to all, without threatening the viability of the communities upon which these services depend.

- ICSP



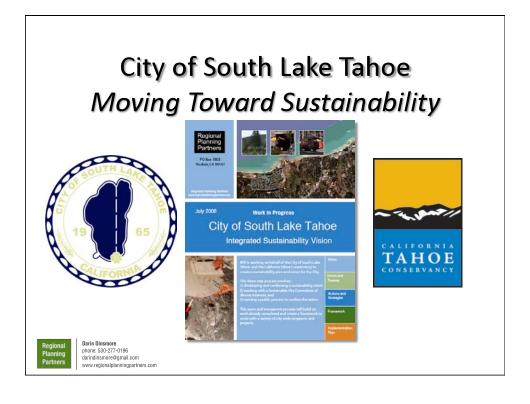


# **ICSP: The Process**

# **Plan Development Requirements**

- Develop the plan through a public consultation process;
- Demonstrate that cooperative efforts have been made between governments;
- The plan must identify and justify priority projects;
- The plan must be long-term; and,





# **Process and Schedule**

- Form Green/Sustainable City Committee
- Select a definition
- Select a framework
- Adapt framework to City
- Review existing supporting information (Place-Based, etc)
- Public Workshop



# DRAFT Sustainability Principles for the City of South Lake Tahoe (Summary)

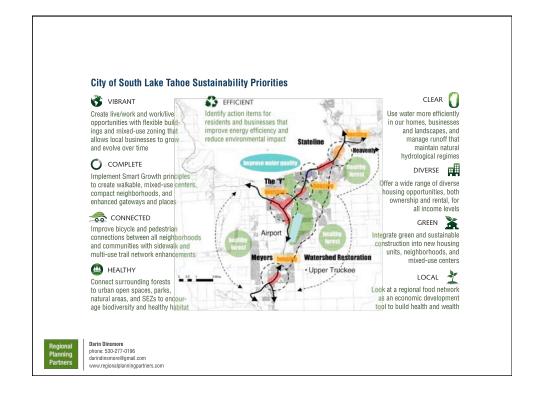


Darin Dinsmore
phone: 530-277-0196
darindinsmore@gmail.com
www.regionalplanningpartners.com

- 1) Green Infrastructure
  - Energy/Resource Usage, Waste Reduction & Recycling,

**Water and Stormwater Infrastructure** 

- 2) Complete Community
  - Neighborhoods, town centers and nodes, gateways & enhanced Places
- 3) Environmentally-Friendly Transportation
- 4) Vibrant Economy
- 5) Diverse Housing
- 6) Forest Health and Functional Open Space
- 7) Community Facilities and Programs
- 8) Healthy Food System
- 9) Green Buildings
- 10) Regeneration/Restoration



# The Top Four Strategies Identified by the Public for Moving Toward Sustainability

- 1. Shift away from reliance on non-renewable sources of energy.
- Create live/work and work/live opportunities with flexible buildings and mixed-use zoning that allows local businesses to grow and evolve over time.
- Provide economic opportunities for investment, businesses and employment that will support an economically diverse and prosperous year-round community.
- 4. Provide clear incentives for green buildings and consider phasing in the Green rating system or LEED certification.



# **Sustainable Site Planning and Design Features**

- Efficient use of the land
- Coverage reduction while increasing FAR
- · Small unit sizes
- Diversity of unit types, mix of housing, jobs, and retail
- Mix of permanent and visitor/fractional units
- · Design for connectivity, walkability, and mobility options
- Street front commercial/retail
- · Proximity to transit and linked trails
- Shared, Park Once, and Parking management strategies
- Solar Orientation, Energy Efficiency, and Design





# CITY SUSTAINABILITY GOALS AND ACTIONS

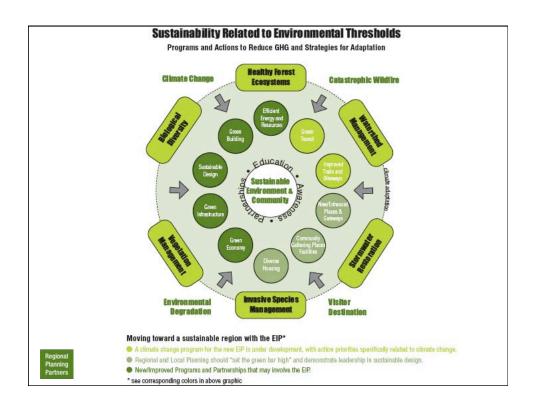
- 1. Energy Reduction of 15% by 2012
- 2. New Green Building Program
- 3. Environmentally-Friendly Transit
- 4. Recycling Plan to Achieve 55% Diversion Rate by 2011
- 5. Reduce Use of Plastic Bags and Styrofoam

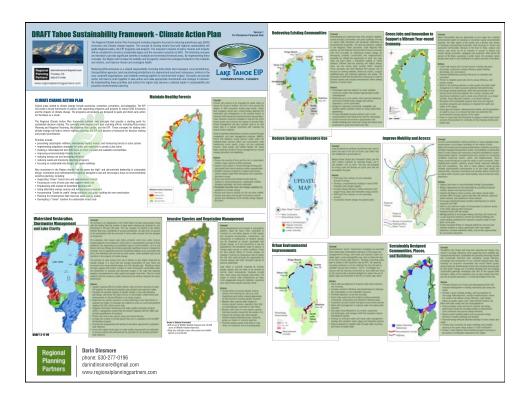


# **RESIDENT SUSTAINABILITY GOALS AND ACTIONS**

- 1. Improve Home Energy Efficiency
- 2. Start Using Responsible Mobility Options
- 3. Be an Environmentally-Conscious Consumer
- 4. Assist in Education, Awareness, and Capacity Building
- 5. Incorporate Sustainability in Business Practices

Regional Planning phone: 530-277-0196 darindinsmore@gmail.com





# Maintain Healthy Forests

Forests will continue to be managed for public safety to reduce the threat of wildfire; this will in turn prevent the release of GHG emissions during large events.

# Walfand Uthan Interface Union Jim Colonia Jim Thoma Jim Thoma Jim Shore of York

Darin Dinsmore phone: 530-277-0196 darindinsmore@gmail.com www.regionalplanningpartners.com

# Actions

- Reduce the severity of fires and the risk of catastrophic wildfire, major sources of GHG emissions
- Capture more carbon in forests through thinning and tree growth that would maximize carbon sequestration
- Establish biomass programs to replace pile burning (which releases large GHG emissions) and to generate alternative energy
- Grow more diverse and tolerant forests that are resilient to rising temperatures, catastrophic wildfire, changing hydrology, and insect outbreaks

# Watershed Restoration, Stormwater Management and Lake Clarity

The pollutants that impact Lake clarity primarily come from urban sources located adjacent to the lakeshore. There is current evidence that the increase in water temperature has already impacted the Lake's biodiversity.



# Actions

- Support ongoing efforts to obtain federal, state and local resources to keep EIP projects for watershed protection and pollutant load reduction viable
- Consider the possible impacts of climate change in areawide planning and design, and stress the need to focus on stormwater runoff control and enhancement of natural infiltration in all urban projects
- Determine the specific dynamics of urban hydrology in the Tahoe Basin
- Integrate stormwater monitoring with water quality restoration projects within a management system that will directly integrate with the TMDL and provide quantification of progress

Planning phone: 530-277-0196 darindinsmore@gmail.com
www.regionalplanningpartners.com

# Invasive Species and Vegetation Management

Rising temperatures and changes in precipitation patterns make the basin more vulnerable to invasions by non-native species in both aquatic and terrestrial environments.



# Action

- Elevate efforts to prevent aquatic invasive species from entering the Lake
- Monitor other regional water bodies for invasive aquatic species, especially those that are hydrologically connected to Lake Tahoe
- Monitor Lake Tahoe for new invasive species that have recently moved into the western U.S.
- Promote healthy aquatic food-webs in Lake Tahoe, its tributaries and surrounding lakes

Regional Planning partners

Darin Dinsmore phone: 530-277-0196 darindinsmore@gmail.com www.regionalplanningpartners.com

# **Redevelop Existing Communities**

Redeveloping our urbanized areas with compact, walkable, transitoriented communities and green buildings will help to reduce GHG emissions and accelerate attainment of environmental thresholds.

# Kings Beach Hay 28 Taboe City Hay 28 Honismodel Hay 28 Stateline Hay 50 South Lake Taboe Hay 50

## Actions

- Reconfigure land-use patterns to create walkable, mixeduse centers and compact appropriately-scaled redevelopment
- Redevelop up to nine centers with improved pedestrian and transit-oriented urban design that reduces dependency on the automobile
- Design for improved connectivity, walkability, and mobility options between centers to reduce automobile dependancy
- Provide affordable housing solutions and a work/housing balance that reduces the need for commuting

Planning Partners

Darin Dinsmore phone: 530-277-0196 darindinsmore@gmail.com

# Green Jobs and Innovation to Support a Vibrant Year-round Economy

Basin communities have an opportunity to once again be a national environmental leader by focusing on innovation around environmental solutions.



# Actions

- Create high-quality jobs focused around: training, education, technology, ecotourism, energy efficiency, green building technology, arts, and science
- Continue philanthropic pursuits that focus on solutions and innovation
- Partner to establish green jobs tied to energy efficiency, and climate change
- Build on the existing expertise in water quality and public lands management to create successful public/private partnerships

Regional Planning partners

Darin Dinsmore phone: 530-277-0196 darindinsmore@gmail.com www.regionalplanningpartners.com

# Reduce Energy and Resource Use

Local jurisdictions and Basin businesses may want to follow the lead of the City of South Lake Tahoe that has established a priority goal to: "Reduce Green House Gas Emissions (GHG) and the City's Carbon Footprint by reducing energy use in City facilities 15% by 2012."

# Main Street Transi Mass Connection Mose Mode Street Indipact Internally Mode Internally Mode Internally Lower Internally Lower Internally

## **Actions**

- · Shift away from reliance on non-renewable sources of energy
- Develop a comprehensive strategy to reduce GHG emissions and climate impacts
- Increase energy efficiency, reduce emissions and support local, clean and renewable energy sources
- Shift away from reliance on non-renewable sources
- Incorporate climate change into general plans



# Improve Mobility and Access

In more rural destinations within proximity to a large population base, transportation is the largest contributor to the release of GHG. Basin communities and recreational destinations should be served by a centrally-managed transportation system.



# Actions

- Support and invest in environmentally-friendly transportation
- Reduce dependence on the automobile by providing increased mobility options and improved access
- Improve the Basin's transit systems and reduce vehicle miles traveled (VMT) through a basin-wide bike trail network, improved transit network, and waterborne transit network
- Encourage pedestrian/transit-oriented redevelopment to reduce emissions and VMT

Planning Partners Dismore phone: 530-277-0196 darindinsmore@gmail.com www.regionalplanningpartners.com

# Regional Electric Vehicle Car Share Program Concept

Car Share programs have been used in larger cities and mixed-use or residential projects to provide people with the opportunity to share a car within their building and reduce their carbon footprint. Other City Car Share programs operate city wide with strategic drop-off/pick-up locations. We would like learn from the success of these programs and use the idea within the Tahoe basin to reduce our carbon footprint and promote environmental improvement. The concept is that the program would start on a county/city scale, but then grow into a regional program with connections outside of the basin.

The Intra- and Inter-Regional electric vehicle car share program could be a partnership between local utility districts, TRPA, Tahoe California Conservancy, NLTRA, and Chamber of Commerce to promote clean and efficient molility options for visitors and locals.

This program could be started and supported by developers and residents of mixed-use redevelopment projects as an extension of the Community Enhancement Program.

Donations would be accepted through a local nonprofit for regional carbon offsets to help subsidize the program

Solar panels on public buildings and institutions could be strategically located around the basin to establish charging stations for the program. Vehicles may also be located at the Reno/Tahoe airport, Downtown Truckee-Rail depot, and Carson City/Minden as the program expands.

Priority locations include waterbourne transit facilities/ferry terminals, downtowns and mixed use projects.

# **Project Goals**

- Showcase innovative technologies
- Reduce vehicle ownership in mixed-use projects Reduce emmissions in the basin
- Build sustainable mobility partnerships in the basin Provide flexible mobility choices in our Basin
- Promote multimodal travel options

## **Funders**

- Project partners
- Developers
- Residents-user fee
- Tourists/Visitor-user fee
- Public institutions
- Rental car mitigation fee Private donations
- Corporate Sponsorship
- PG&E Carbon Consolidators





# **Urban Environmental Improvements**

Comprehensive "green" infrastructure strategies are important when addressing sustainability objectives in the supply and management of energy, solid waste and materials, water and waste water.

- Work with local agencies to improve solid waste reduction and recycling
- Increase economic efficiency and performance by reducing the consumption of non-renewable resources
- · Promote reduction, re-use and recycling
- Divert solid waste from the landfill including household, commercial, construction and site/forest clearing waste

Darin Dinsmore phone: 530-277-0196 www.regionalplanningpartners.com

# Sustainably Designed Communities, Places, and Buildings

Thoughtful site design and area-wide planning and design may result in coverage reductions while supporting more walkable and compact development. Sustainable site planning and design should also incorporate improved solar orientation, energy efficiency and design and introduction of new efficient building types.



### Actions

- Promote efficient use of land and redevelopment/infill with compact development in existing community plan areas and nodes
- Develop a green building strategy with local partners to encourage redevelopment, compact neighborhoods, mixeduse centers and address energy efficiency, solar design, indoor air quality, green roofs, water efficient fixtures, etc.
- Create a Tahoe Specific Green Building program focusing on key points of certification important to the region

Planning Partners

Darin Dinsmore phone: 530-277-0196 darindinsmore@gmail.com www.regionalplanningpartners.con

# VISION OF THE FRASER BASIN COUNCIL

The Fraser Basin is a place where social well-being is supported by a vibrant economy and sustained by a healthy environment.

# Charter for Sustainability

The Fraser Basin Council's Charter for Sustainability 2-2.4MB marks a new era in stewardship for the Fraser Basin. The individuals, organizations, governments and communities who support the Charter accept its overall intent and principles agree to do their part to pursue its goals. The names of the original signatories to the document can be found on the last proof the Charter.

The Charter for Sustainability was developed in 1997 by the FBC's predecessor, the Fraser Basin Management Board (FBMP). Created by the federal, provincial and local governments in 1992, the FBMP was given a mandate to develop a strategic plan for the entire Fraser Basin. This plan was formalized in the Charter. The FBC now oversees the implementation of the Charter, and its vision statement provides the cornerstone upon which the FBC establishes its priorities and develops its programs.

The Charter is a good-faith agreement among Basin residents and organizations to work towards the social, economic and environmental sustainability of the Fraser Basin. It outlines the vision, directions, principles, goals and values that will lead to a better, more sustainable future. The Charter is not a legally binding document nor does it interfere with any existing laws, agreements, treaties or policies.



Charter for Sustainab



The Charter takes a watershed management approach to addressing issues and resolving conflicts in the Fraser Basin. Planning and decision-making occur within watershed boundaries as these boundaries remain stable over time, are easily recognized and provide natural limits for managing social, economic, environmental and institutional connections.

### Charter Directions and Goals

To achieve its vision, the Charter for Sustainability outlines four strategic directions for its activities. Each direction features goals and suggestions on how those goals can be achieved.

# • Understanding Sustainability

Governments, community groups and individuals recognize why and how they can contribute to building vibrant communities, developing strong and diverse economies and maintaining the air, water, land and living species that make up our ecosystems.

### • Caring for Ecosystems

We are all stewards of resources such as water, forests, fish, wildlife and land. As stewards, we conserve and enhance our ecosystems to maintain strong and diverse economies and to support growing communities. In this way, we not only enjoy our natural environment, but also conserve it to support our high quality of life.

## • Strengthening Communities

Communities benefit from local experience, skills and values. Strong communities are built on a diverse economy, an educated workforce, safe neighbourhoods, accessibility to basic commodities, shared goals, local action and a sense of belonging

## • Improving Decision-Making

Decision-making is shared and we work together to reach creative agreements and achieve common goals that reflect the interests of a growing population mixed in gender, culture, religion, age and interest. Aboriginal rights and title now being defined are reconciled in a just and fair manner.



# narter Principles for Sustamabili

To guide its activities, the Charter outlines twelve important principles on how the FBC and its partners, directors and staff will conduct business.

# Mutual Dependence

Land, water, air and all living organisms including humans are integral parts of the ecosystem. Biodiversity must be conserved.

# • Accountability

Each of us is responsible for the social, economic and environmental consequences of our decisions and accountable for our actions.

# Equity

All communities and regions must have equal opportunities to provide for the social, economic and environmental, needs of residents.

# • Integration

Consideration of social, economic and environmental costs and benefits must be an integral part of all decision making.

# Adaptive Approaches

Plans and activities must be adaptable and able to respond to external pressures and changing social values.

# Coordinated and Cooperative Efforts

Coordinated and cooperative efforts are needed among all government and non-government interests

# Open and Informed Decision Making

Open decision making depends on the best available information

# • Exercising Caution

Caution must be exercised when shaping decisions to avoid making irreversible mistakes.

# Managing Uncertainty

A lack of certainty should not prevent decisive actions for sustainability. • Recognition

# There must be recognition of existing rights, agreements and obligations in all decision making Aboriginal Rights and Title

We recognize that aboriginal nations within the Fraser Basin assert aboriginal rights and title. These rights and title now being defined must be acknowledged and reconciled in a just and fair manner.

# Regional Planning

# • Transition Takes Time

Sustainability is a journey that requires constant feedback, learning and adjustment. In the short-term, the elements of sustainability may not always be in balance.