

# Department of Conservation Division of Land Resource Protection

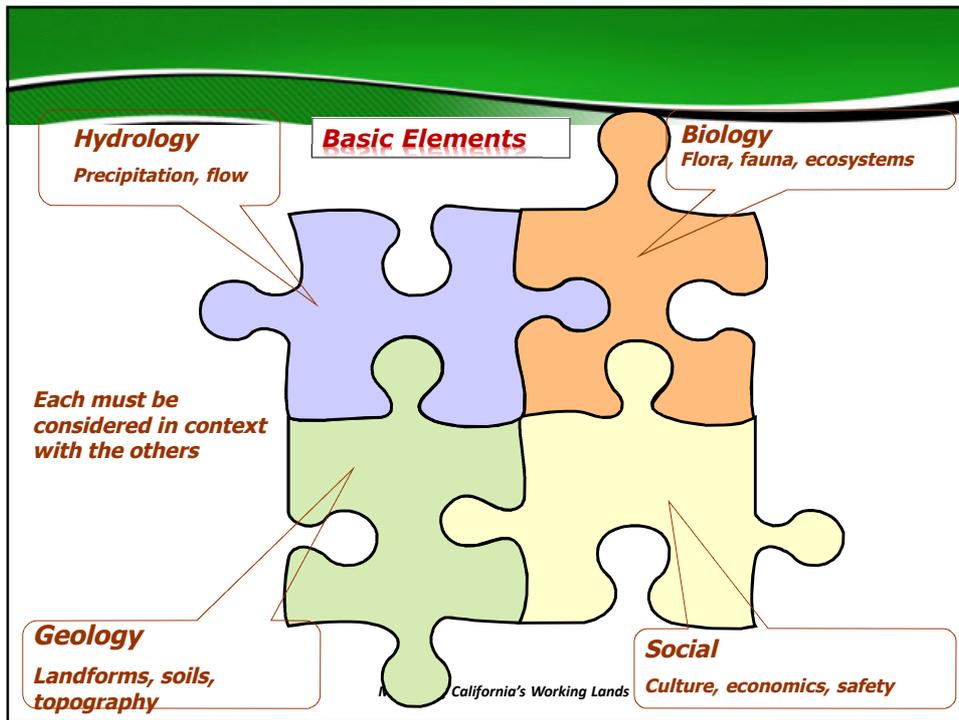


FROM INTEGRATED WATER  
MANAGEMENT TO  
INTEGRATED NATURAL  
RESOURCE MANAGEMENT

## TERMINOLOGY

- The Watershed= Place = interaction between components of the ecosystem
- Ecosystem Services= Management Goals and Objectives
- Management Approach
  - Recognizes importance of local and regional management
  - Organized based on physical, chemical, and biological boundaries and the human patterns within them

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## Ecosystem Services

- ✓ *purification of air and water*
- ✓ *mitigation of floods and droughts*
- ✓ *detoxification and decomposition of wastes*
- ✓ *soil and soil fertility generation and renewal*
- ✓ *pollination of crops and natural vegetation*
- ✓ *control of agricultural pests*
- ✓ *dispersal of seeds and cycling of nutrients*

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## Ecosystem Services



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## Ecosystem Services

- ✓ *maintenance of biodiversity*
- ✓ *protection from ultraviolet rays*
- ✓ *stabilization of climate*
- ✓ *moderation of temperature extremes*
- ✓ *moderation of the force of floods, winds and waves*
- ✓ *support of diverse human cultures*
- ✓ *beauty and spiritual sustenance*

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## Ecosystem Services



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## Ecosystem Services

- Many ecosystem services are beyond price - providing a source of *cultural identity*, of *kinship with life*, of *learning*, of *evolutionary processes*, and with the primary components of *soil*, *air*, *water*, and *biodiversity* make up complex systems which as yet, have no engineering substitutes.

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## Ecosystem Services



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## RESILIENCE AND CHANGE

- Systems need to be both robust and resilient to provide long term support services for human and other populations
- Change is inevitable (and necessary)
- Reactions to change are usually more important and influential than the change itself

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## Functional Continuity

- *System complexity allows a greater range of adaptation options*
- *Robust range of options provides greater resilience in the face of change*
- *Resilience provides the opportunity for more effective adaptation*
- *Effective adaptation retains complexity and sustains functions*

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## Integrated Natural Resource Management

- **Public Involvement**
- **Inclusiveness**
- **Multi-objective approach**
- **Transparency**
- **Goal-oriented**
- **Scientifically valid**
- **Performance based**
- **Integrate relevant federal, state, tribal, regional and local goals**

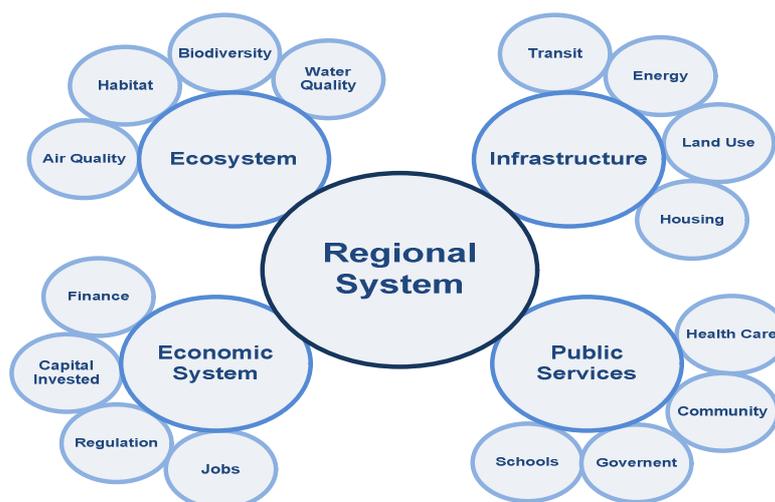
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## Integrated Natural Resource Management

- Integration of management effort will become more commonly used
  - As change occurs
  - In increments over time
  - As traditional methods fail to achieve anticipated results

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## Regional Planning & Management



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Learn where your water comes from...



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