

Best Available Science in setting Land Use Regulations

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King County

OR

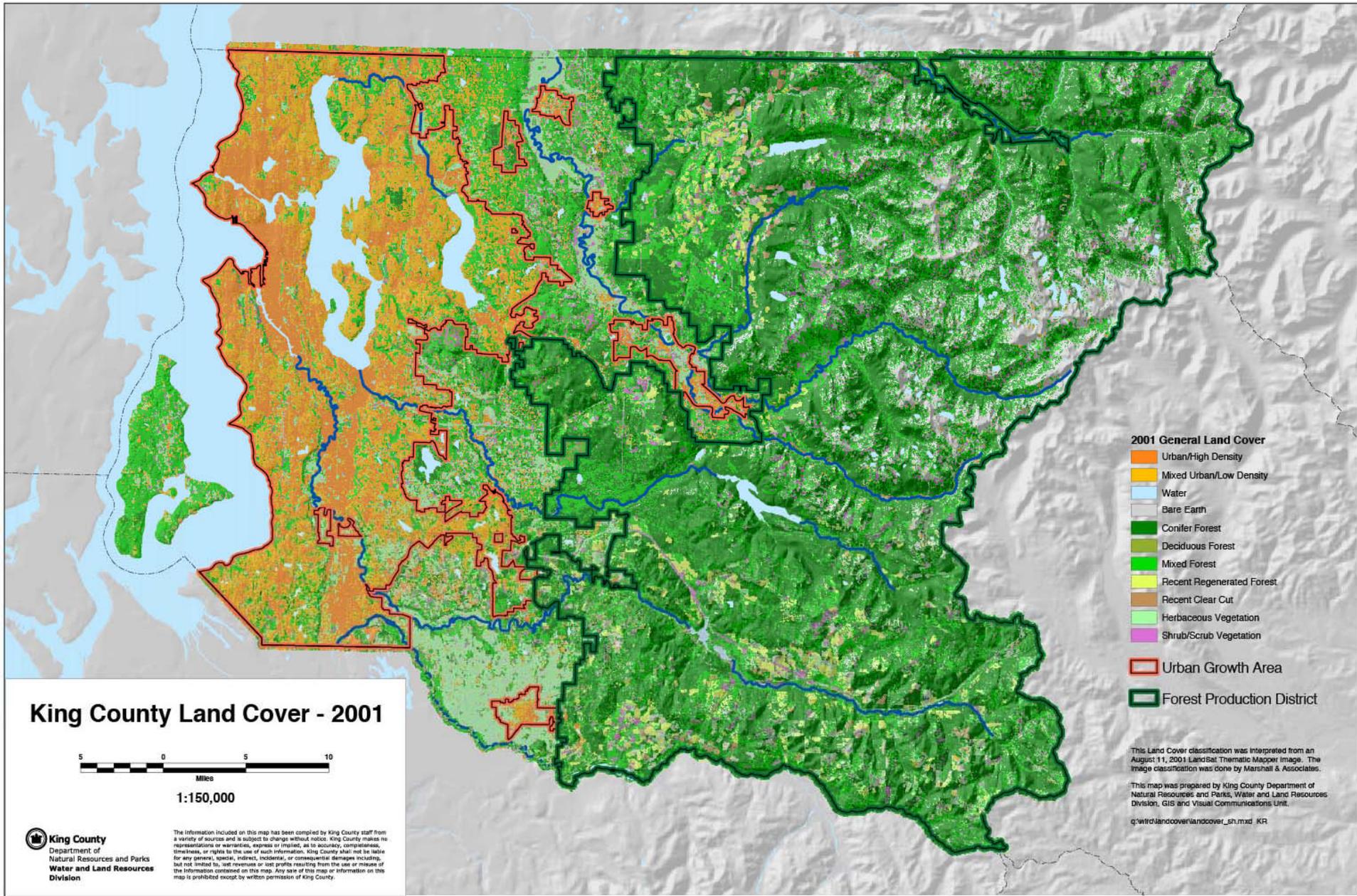
When the ...

**“one size fits all, everything’s
important everywhere”**

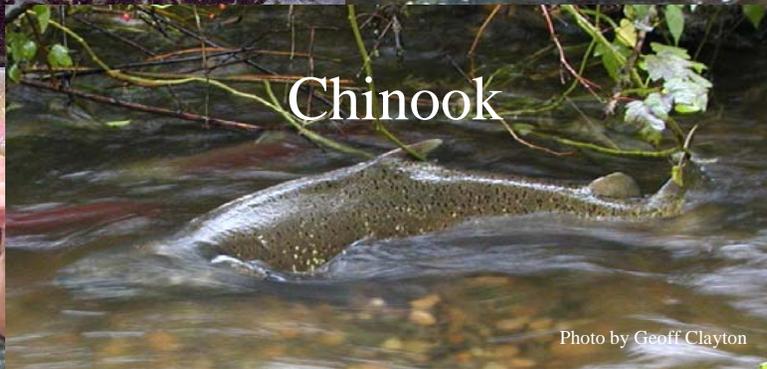
approach isn’t acceptable.

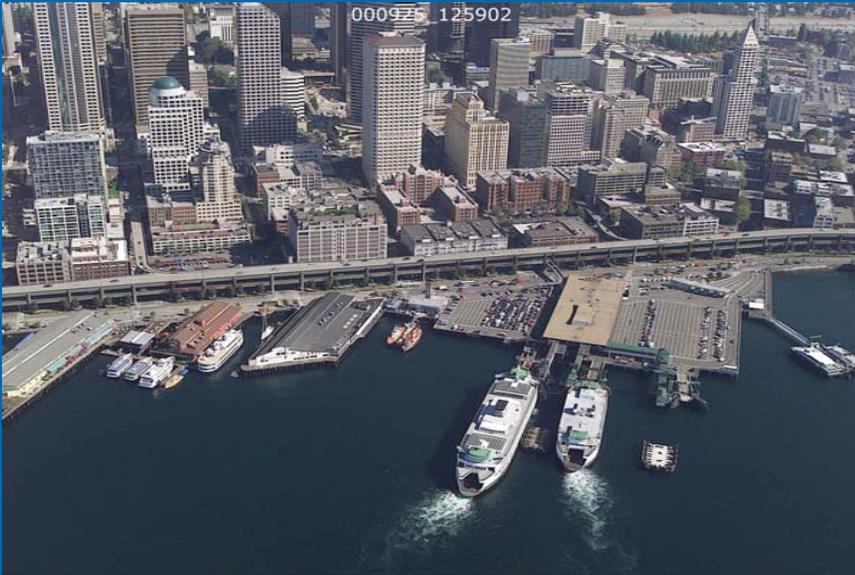


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Pacific Salmon of King County





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WA GMA Requires

- protect functions and values of critical areas
- give special consideration to preserve or enhance anadromous fisheries
- Substantive use of best available science
- When information is lacking or inadequate... be precautionary *in favor of the resource*
- deviation from BAS allowed to balance other GMA goals BUT must give rationale



Critical Areas

- **Aquatic Areas (streams, rivers, lakes, ponds, estuaries, marine shorelines)**
- **Wetlands**
- **Wildlife Habitat Conservation Areas (10 bird species)**
- **Hazard Areas (Flood, Erosion, Seismic, Volcanic, Coal Mine)**
- **Aquifer Recharge Areas**



Balancing Act

- Property Rights (everywhere)
- Urban
 - Urban density
 - Affordable housing
 - Buildable land supply
- Rural
 - Agriculture
 - Equity (Urban-Rural)
 - Rural character and rural development



Tools for Protection

- **Regulations**
- **Restoration and flood control projects**
- **Habitat and open space acquisition**
- **Educational programs, basin stewardship, and technical assistance**
- **County practices (tax incentives, technical assistance, grants)**
- **Agricultural and forestry programs**



Role of Science

- **Educate – describe effects/informed tradeoffs**
- **Keep science (and scientists) independent**
- **BAS is NOT justification for policy decision**
- **Science as Guidance for tough decisions**
- **Assess Risk (qualitative, relative)**
- **Identify and inform Prescriptive and Non-Prescriptive Measures**



What was done?

- **Synthesis of Literature (Fall 2003 – Spring 2004)**
 - **Context (Geology, Landscape, Conservation)**
 - **Habitat Functions and Processes**
 - **Ecological Models**
 - **Protection Approaches**
 - **Peer Review**
- **Condition assessment (Fall 2003)**
- **Draft regulations (Winter 2002 to Summer 2004)**
- **Risk Assessment (Spring 2004)**
- **Re-draft regulations to meet BAS or develop rational for deviations (Summer 2004)**
- **Send to Council (Summer 2004)**



Assessment of Freshwater Catchments

- Salmon use
- Priority Species
- Wildlife Network
- Road density
- Impervious Surface
- Surrounding Land Use
- Wetlands
- Forest cover



Assessment of Marine Shoreline Drift Cells

- Riparian Forest
- Forage Fish Spawning
- Eel Grass
- Designated Marine Reserve
- Important Bird Area
- Salt Marsh
- Armoring/bulkheads
- Shoreline Structures
- Riparian development
- Large Woody Debris

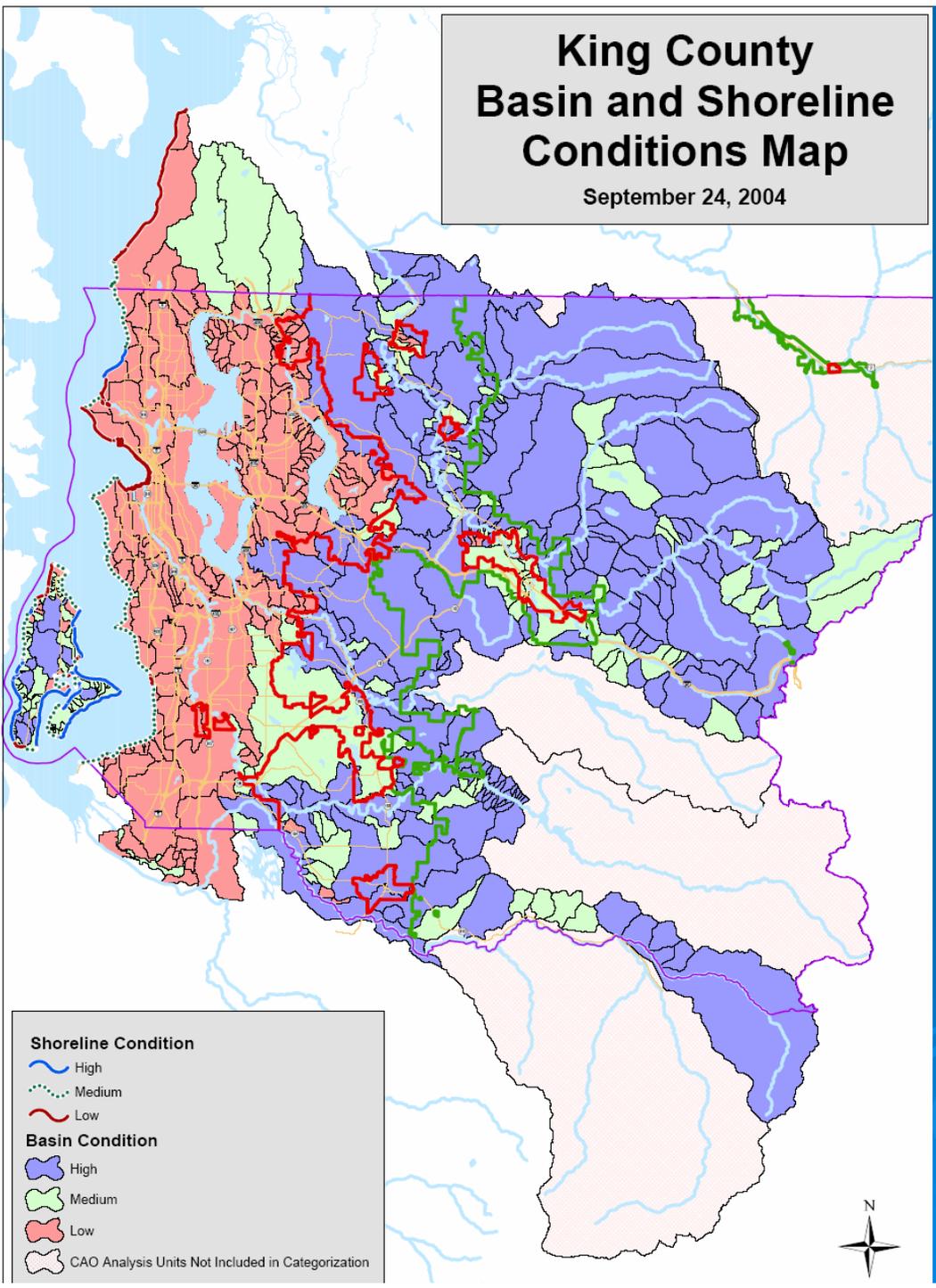
200 ft.

- Armored
- Patchy, separated, not overhanging trees
- No wood accumulations

- Unarmored
- Continuous, adjacent to overhanging trees
- LWD

King County Basin and Shoreline Conditions Map

September 24, 2004



King County

Overview of Prescriptive Regulations

- Upland –
 - Rural – 35 to 50 % limits on clearing (to protect forest cover)
 - Urban – enhanced stormwater engineering

- Riparian Buffers* (in feet)-

	<u>Fish</u>	<u>Non-Fish</u>	<u>Isolated</u>
Urban	115	65	25
Rural	165	65	25
<i>Special Urban</i>	165	N/A	N/A

*Based on FEMAT SPTH concept; measured from outside edge of severe CMZ or associated wetlands



Alternative “Flexible” Approach

- **Protections can be met with something other than prescriptive regulations**
- **Stewardship and Incentives**
- **Limited to rural residential areas**
- ***Must provide equal or better level of protection as prescriptive standards***



Flexibility Factors

- **Flexibility in location and extent of clearing and buffers**
- **Scientific criteria**
 - Condition of the buffer
 - Health of the drainage basin
 - Location in the drainage basin
- **Land owner objectives – what to do on property and where**
- **Site-specific best management practices**
 - Replanting native plants
 - Removing invasive plants
 - More stormwater controls
 - And many, many more



Flexibility Outcomes

- **Highest Protections (least flexibility)**
 - biological value/habitat conditions are high
 - Land use constraints are low

- **Lowest Protections (highest flexibility)**
 - biological value/habitats conditions are low
 - Land use constraints are high (and unlikely to be removed)



Risk Conclusions

- Proposal is NOT “no risk”
- Relatively low for salmonids
- Moderate to high for highly sensitive and sedentary species in salmonid-habitats (e.g., FW mussels), and
- Moderate to high for sensitive species in non-salmonid habitats (Pacific giant salamander, tailed frogs)



Major BAS Conclusions

Context, Context, Context

Protection of habitat-forming processes critical

Need BOTH Riparian and Upland Measures

**Range of Literature Recommendations
(set distance to several SPTHs)**



**YOU IMAGINE
"NEW" BILLABLE
S THE C.A.O.
CREATE FOR
S. EMPLOYEES
PLUS AN HOUR?**

**HARRY REINERT,
THE AUTHOR OF
THE C.A.O., IS AN
ATTORNEY
NOT A SCIENTIST.**

**SIM'S & D.D.E.S. CLAIM
1,000 PEOPLE
WENT TO 23 MEETINGS.
NAME ONE PERSON
WHO SAID O.K. TO
THE THEFT OF 65%
USE OF THEIR LAND.**

**CHOOSE CAREFULLY!
SIMS & D.D.E.S.
— OR —
PROPERTY OWNERS
& COMMON SENSE**



King County

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<http://www.metrokc.gov/ddes/cao/>



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