



STATE OF CONNECTICUT  
DEPARTMENT OF ENERGY AND  
ENVIRONMENTAL PROTECTION

Daniel C. Esty, Commissioner



Bureau of Natural Resources  
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# Natural Resources Executive Summary

- **BNR manages services across four resource areas and a diverse constituency:**
  - Living resources and habitats: saltwater, freshwater, terrestrial ecosystems
  - Consumptive and non-consumptive users, recreational & commercial, and general public
- **BNR is implementing a 5-year strategic plan and a 10 month transformation such that by July 2012:**
  - Fishing opportunities enhanced, particularly for marine species
  - Forest Management Plans for 1,000 additional acres underway
  - Operations and production targets at fish culture facilities aligned with staff resources and program needs
  - Approval from USFWS to use federal funds to conserve key properties
  - Rapid Response Plan developed for Aquatic Nuisance Species
  - Education, outreach, recruitment & retention efforts enhanced by improved CARE classes, on-line CE/FS classes, expanded *Connecticut Wildlife*, improved price structure for licenses, and a strategy to reach new markets
- **Key to Success are stability of federal funds, success implementing new legislation and regulations, and ability to re-fill positions for which we have funding.**

# Bureau of Natural Resources

- **Who we are:** 127 staff; 150 seasonal staff; 7 field facilities & hatcheries; 32 State Forests totaling 170,000 acres; WMAs totaling 25,000 acres
- **Mission:** To conserve and enhance Connecticut's fish, forest and wildlife resources and to enhance opportunities for sustainable public use and appreciation.
- **Transformation:** Will: (1) maintain the long-term ecological health and resiliency of our renewable natural resources, (2) increase sustainable use and value to the public, and (3) increase the capacity of the public to support long-term conservation and management. This will be accomplished through:
  - Ongoing Prioritization & Planning (Science Based Adaptive Management)
  - Enhanced Process/Implementation
  - Enhanced Outreach, Marketing & Product Development
  - Improved use of Analytics & Metrics



*Vision and Mission*

# BNR Programs Serve Many Constituencies

## Constituents & Partners

- General Public
- Non-consumptive outdoor users: hikers, birdwatchers, etc.
- Casual anglers & hunters
- Avid anglers & hunters
- Businesses community: timber harvesters, forest product industry, tackle shops, commercial fishermen, retailers of outdoor goods, etc.
- Federal Agencies: USFWS, USGS, USFS, NOAA, etc.
- Northeastern States: AFWA, ASMFC, NEFMC, ASF
- Municipal Governments

## Key CT Partner Organizations

- Conservation Advisory Council (reps from 30 member organizations)
- Fisheries Advisory Council (reps from 25 member organizations)
- Forest Practices Advisory Board
- Connecticut Coalition of Sportsmen
- Trout Unlimited
- BASS Federation Nation
- CT Forest & Parks Association
- Ducks Unlimited
- CT Audubon & Audubon CT
- and many others!!!

# Four Transformation Areas for BNR

## Description

## Major activities

### Prioritization & Planning

- Ongoing review of programs relative to best available science & data, and resource constraints (staff and budget)

- Strategic Planning
- CORE Program Analysis
- Operational Planning
- Annual Work Plans

### Process & Implementation

- Implement processes that focus effort and increase efficiency. Result will be cost savings and improvements in quality and speed of delivery

- PARS
- LEAN
- Performance Reviews
- IT improvements

### Outreach, Marketing & Product Development

- Improve quality and delivery of education programs.
- Improve quality of outreach products and effectiveness of delivery.
- Develop and implement innovative marketing strategies to attract/retain new customers.

- CARE & CE/FS programs
- News Releases
- CT Wildlife Magazine
- Pricing Strategies
- Product Development
- Work with Partners/Vendors
- Automated License System

### Analytics & Metrics

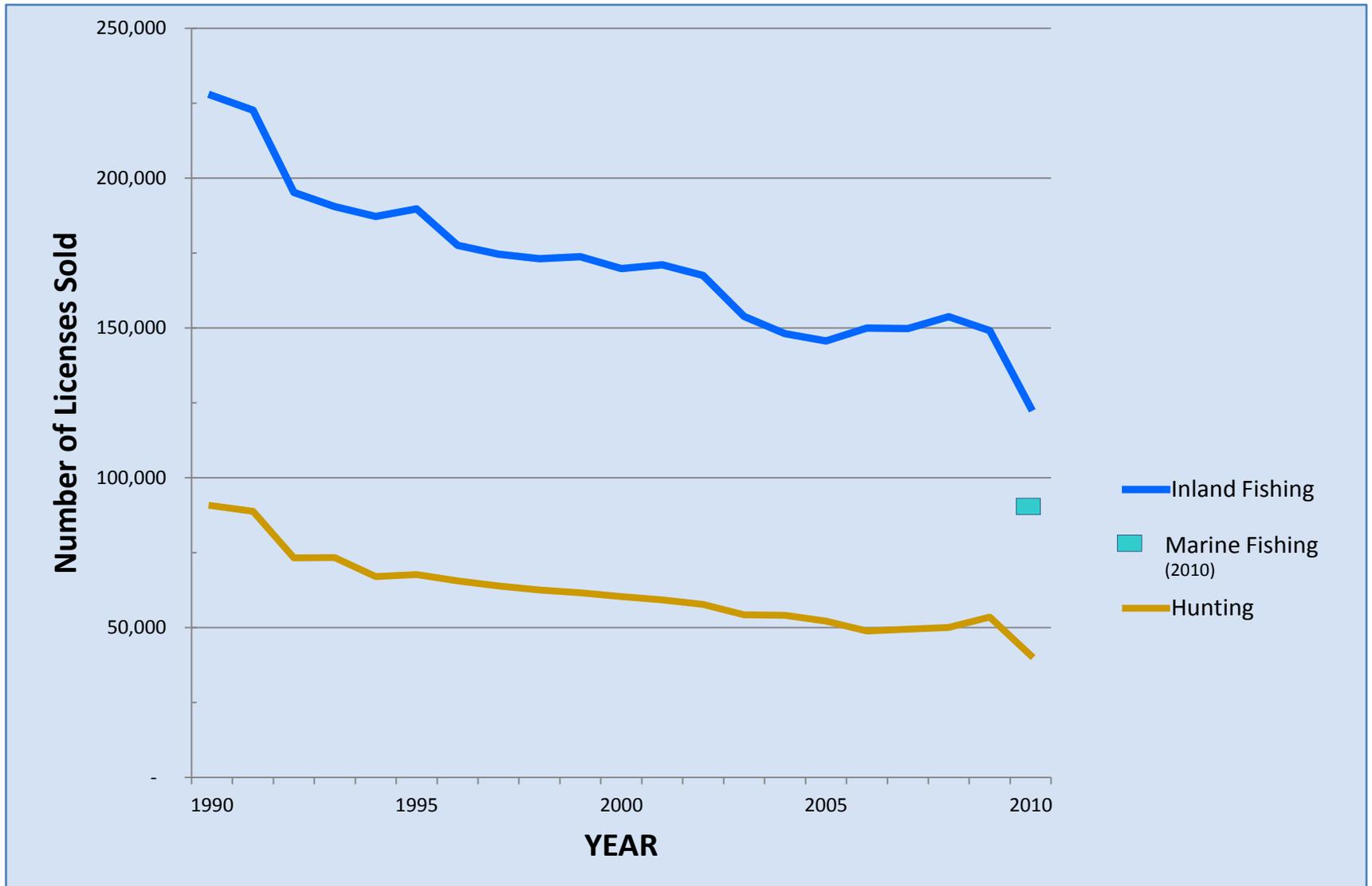
- Review and modify internal metrics to better inform decision making (science data and cost/benefit analysis).
- Review and modify external metrics to improve communication with constituents (environmental and socioeconomic data).

- Identify Key internal and external metrics.
- Annual project/program reports.
- Compilation of socioeconomic data.
- Dashboard development

# BNR Breakthrough Objectives: 2011-2016

- Protect high priority habitat based on a “landscape scale” conservation approach.
- Increase participation in fishing, hunting, and wildlife associated recreation.
- Reduce damaging impacts from non-native nuisance species.
- Diversify wildlife habitat by doubling the number of acres of state forest under active timber management.
- Reduce property damage and threats to public health and safety caused by wildlife.
- Maintain ongoing CORE programs including implementation of key components of the state Comprehensive Wildlife Conservation Strategy and Climate Adaptation Strategy.

# Connecticut License Sales 1990-2010



# NATURAL RESOURCES – SUPPORTING A GREEN ECONOMY FOR 143 YEARS!

DEEP Bureau of Natural Resources has been a leader in resource conservation and the Green Revolution since evolving from the State Board of Fisheries and Game that was established in 1867.

## SOCIOECONOMIC BENEFITS OF CONNECTICUT'S NATURAL RESOURCES

**\$1.3 Billion and 9,600 Jobs!**



### Freshwater and Saltwater Fishing

- 251,000 state residents take 5.4 million fishing trips and spend **\$198 million** per year, 51,000 non-residents take 457,000 fishing trips and spend **\$45 million** per year in CT.
- Recreational fishing supports over 4,400 jobs in CT.
- Connecticut's commercial fishing industry employs more than 500 people and generates annual sales totaling approximately **\$33 million**.

#### Did You Know...

**Fishing in Connecticut supports over 90 locally owned bait and tackle shops!**

### Wildlife

- 40,803 hunters spend over 500,000 days afield in Connecticut annually and spend **\$68 million**, supporting over 1,100 jobs.
- Nearly 1.2 million Connecticut residents are engaged in watching wildlife annually, with total expenditures exceeding **\$509 million**.

#### Did You Know...

**Anglers and hunters contribute over \$13 million annually to fund DEEP Fish and Wildlife programs!**

### Forestry

- Connecticut timber is processed into valued added forest products including lumber, custom cabinets, furniture, flooring, doors, etc., contributing **\$500 million** dollars to Connecticut's annual economy and employing 3,600 people.
- Connecticut forests produce 60-80 million board feet of timber annually. Other forest products include 400,000 Christmas trees, 12,000 gallons of maple syrup, and 500,000 cords of firewood.

#### Did You Know...

**Kent, CT was named top fall foliage viewing destination for 2010 by Yankee Magazine!**

# Outreach, Marketing & Product Development

	Description	Rationale/impact	Timing	Status	Owner
1 Education CARE & CE/FS	A Refill CARE Supervisor	Maintain CARE operation & outreach initiatives	Ongoing		Pete Aarrestad
	B Offer online CE/FS instruction (keep 1 field day)	Increase CE/FS classes to meet demand			Mark Clavette
	C Add 1 federally funded CE/FS staff	To meet demand			Rick Jacobson
2 Marketing & Constituent Development	A Print stocking maps in e-Angler Guide	Promote trout fishing with new information	2012		Pete Aarrestad
	B Develop marketing strategy for Asian and Hispanic population	Represents likely growth opportunity	2012		TBD
	C Facilitate transformation/succession/recruitment of constituent groups	Groups need new energy. Foundation of conservation effort	2012/13		Bill Hyatt
	D Create on-line "Watchable Wildlife" training program	Expand recruitment to non-traditional user groups	2012		TBD
	E D. Coordinate with BOR on development of smart phone Apps and QR codes	Improve outreach on regulations and programs	2012-13		Tony Petrillo

# Outreach, Marketing & Product Development

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Product Development

Description	Rationale/impact	Timing	Status	Owner
<b>A</b> <b>Increase fishing on recovered marine populations</b> 2. Maximize deer hunting opportunities	Promote sustainable use and benefit to tackle shops	Ongoing	●	Dave Simpson
<b>B</b> 3. Increase # pheasants stocked <b>C</b> 1. <b>Increase hunting opportunities on expanding populations (ex. bear)</b>	Increase opportunity concurrent with license/stamp revenue	Ongoing	●	Mark Clavette
<b>D</b>	Promote sustainable use	2012-15	●	Rick Jacobson
<hr/>				
<b>E</b> Reduce energy costs at Quinebaug	Reduce costs and energy consumption	2013	●	R.VanNostrand
<b>F</b> Complete "Privatization Study" of hatcheries	Legislative mandate	2012	●	Bob Orciari R.VanNostrand
<b>G</b> Initiate process to redesign commercial fishing licenses, permits and registrations (including lobster)	Work to achieve sustainable and viable commercial fisheries	2012 -13	●	Dave Simpson M. Alexander

# Outreach, Marketing & Product Development

	Description	Rationale/impact	Timing	Status	Owner
3 Product Development (Continued)	H Develop Forest Management Plans for 1,000 acres of State Forest (implement approach)	Promote sustainable use and improve wildlife habitat	2012	●	Chris Martin
4 Pricing Strategies	A Reduce fees for 16-20 year olds by 50%	Drop-off in participation at age 16	2012-13	●	Hyatt/Aarrestad
	B Authority to adjust fee structure for marketing purposes	Promote sales at specific times	2012-13	●	Hyatt/Aarrestad
5 Partners, Vendors	A Partner with RBFF and ORM to utilize recruitment/retention services	Reduce churn rate and attract new customers	2012-13	●	Rick Jacobson Pete Aarrestad



# Analytics and Metrics

	Description	Rationale/impact	Timing	Status	Owner
1	Annual Program Performance Reports	A Conduct data collection, analysis, and reporting for all programs	Report to federal funding agencies. Information for decision-making	Annual ongoing	● Tony Petrillo Directors Project leaders
2	Socioeconomic data	A <b>Compile socioeconomic data annually with extensive update every five years</b>	Information for decision-making. Nat'l Survey done every five years.	2013	● Tony Petrillo Bill Hyatt Chris Martin
3	Internal Metrics (annual data)	<ul style="list-style-type: none"> <li>A Number of fish passage projects initiated</li> <li>B Number of fishing/hunting trapping licenses sold</li> <li>C Number of CARE students</li> <li>D Acres of early successional habitat created/maintained</li> <li>E Number of CE/FS students</li> <li>F Status of effort to restore NEC</li> <li>f. Acres of wetland habitat restored</li> <li>G g. Percentage of municipalities with urban tree and community forest management plans</li> <li>H</li> </ul>			



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# Analytics and Metrics

Description

Rationale/impact

Timing

Status

3

Internal Metrics  
(continued ... )

I

Acres of state forest land under active management

J

Number of commercial personal use marine licenses sold

K

Private lands forestry (TBD)



4

External Metrics

A

Miles of riverine habitat connected

B

Number of trout/walleye/pike/catfish stocked

C

Number of pheasants stocked

d

Number of participants in freshwater fishing, saltwater fishing, and hunting

D

Acres of habitat conserved, created or restored

E

f

Number of acres opened to public hunting

F

g.

Board feet of timber harvested from state forests

G

h.

**Index of freshwater fish population health (TBD)**

H



# Analytics and Metrics

Description

Rationale/impact

Timing

Status

4

External Metrics  
(continued ... )

I Number/proportion of  
"sustainably managed  
"healthy" marine fish stocks  
(NOAA/ASMFC)

J Index of forest health (TBD)

k. Index of wildlife population  
"health" (TBD)

K



# Quick Wins

1. **RBFF and ORM**
2. **Approval to use federal funds to acquire key properties.**
3. **Stream stocking maps in electronic version and anglers guide.**
4. **ANS rapid response plan.**
5. **Forest management plans for 1,000 acres underway.**
6. **Increased fishing opportunities for summer flounder, striped bass, and scup.**

