

Private Residential Docks on the Lower Connecticut River

J. H. Torrance Downes

- 1995-Present CRERPA
- 1990-1995 Permit Analyst, DEP/OLISP
- 1988-1990 Zoning Enforcement, Old Saybrook
- 1986-1988 Chemical Sales (Connecticut)
- 1981-1986 Exploration Geologist/Geophysicist, AMOCO/New Orleans, Louisiana

Recent Significant Events

- 1991 Silvio O. Conte Wildlife Refuge
- 1993 One of "40 Last Great Places" (TNC)
- 1994 Ramsar International Treaty
- 1998 American Heritage River
- 2000 Updating of "*Gateway Standards*"
- 2001 Two controversial private residential dock applications on CT River

CRERPA Dock Studies

2001

Investigation of Potential Impacts of New Dock Construction on the Lower CT River
(DEP License Plate Grant)

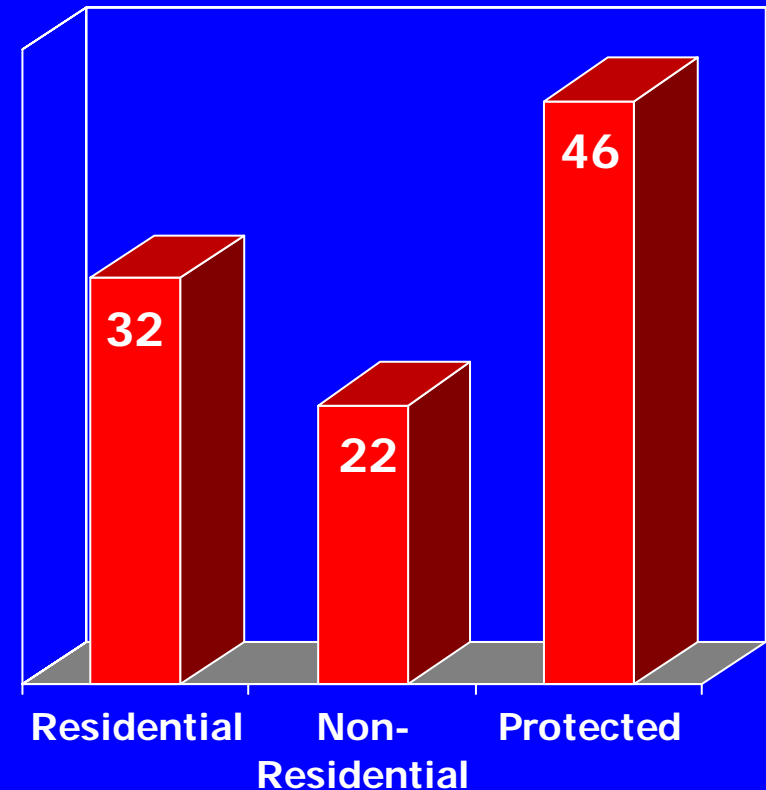
2003

“Implementation Phase, Lower CT River
Dock Impact Study: Creation
Of a General Plan”
(NOAA Coastal Planning Grant/DEP)

Percent of Riverfront by Use

(Linear Feet of Riverfront)

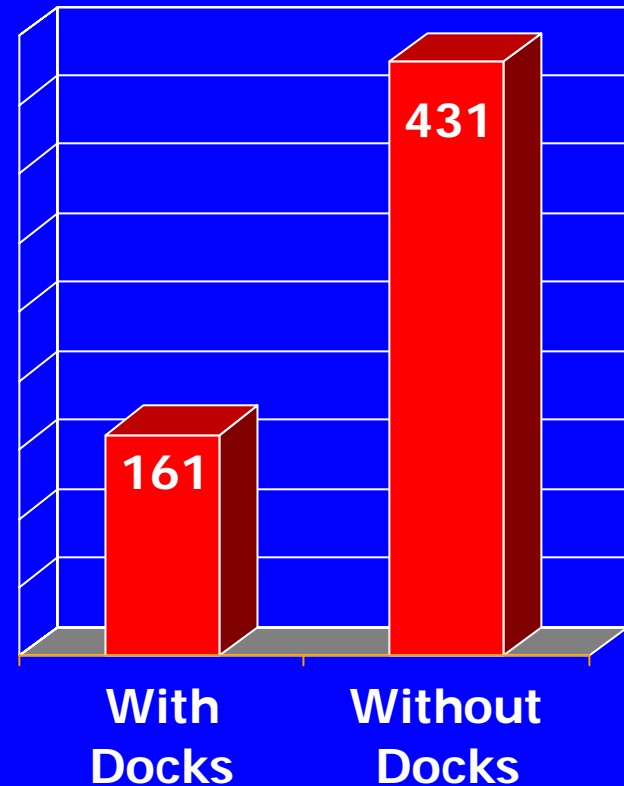
- Residential - vacant, improved, with or without docks
- Non-residential - marinas, municipal, infrastructure, industrial, etc.
- Protected – State of CT, TNC, local land trusts, etc.
Note: Does NOT include protection thru conservation easement



Private Residential Docks on the Lower Connecticut River

(Through 12/31/03)

- 592 residential properties
 - 161 with docks (27%)
 - 431 without docks (73%)
- Extrapolation of increasing submission rate of dock applications to DEP/OLISP (1990 to present)
- Total build-out of residential docks in 25 years



Need for Increased Management?

CT Regulatory Program

- DEP final authority in tidal, coastal and navigable waters (S&D, TWAct, CCMA)
- Effective, especially in lower Connecticut River
- Harbor Management Act - DEP Permit Decisions *influenced* by local HMC policies found in Harbor Management Plan (HMP)
- Common language - "*minimize impacts to environment, navigation, scenic quality*"
- Old Saybrook, Old Lyme, Essex, Chester [DR?]
- Desire for more local influence on State process?

Desire for More Local Influence on State Permitting Process?

- Review of RI, MA, NY and ME Programs
- NY zoning authority extends to municipal boundary, even when *waterward* of shore
- CT local zoning authority only extends to MHW and not waterward
- CT waterside "authority" – Harbor Mgmt (1984)
- Policies regarding "...*desirable use of the harbor for recreational, commercial, industrial and other purposes....*"

Harbor Management Act

(§22a-113k – 113t C.G.S.)

- Harbor Management Plan - Policy-driven
- No clear provisions enabling adoption of standards or criteria for docks or anything else within a Harbor Management Plan (HMP)
- One approach – propose “standards and criteria” for docks and see if DEP will approve them, allowing adoption into HMP
- OR, amend HMA statutes to clearly enable

An Act Concerning Harbor Management Plans

- Representative James Spallone (D)
36th District (DR, ES, LY, OL)
- Signed into law on June 1, 2004
- Will be codified as §22a-113n(b)(6) & (7)
- Standards/Criteria including Aesthetic Standards for Private Residential Docks
- Unanimous votes, House & Senate

Harbor Management Act

PA 04-183 (sHB 5526)

The Commissioner of Environmental Protection shall select *two* harbor management commissions ... from the member towns of the Connecticut River Gateway Commission to jointly recommend standards and criteria for the construction and location of private residential docks and piers and standards and criteria for the management of scenic resources and visual impacts within the limits of navigable waters...

PA 04-183 (sHB 5526)

The standards and criteria shall be jointly submitted for approval to the Commissioners of Environmental Protection and Transportation. The commissioners shall approve or reject each recommendation not more than one hundred twenty (120) days after submission.....

PA 04-183 (sHB 5526)

A harbor management commission...from a member town of the CT River Gateway Commission... may adopt any standard or criterion approved [by the DEP/DOT] as part of its harbor management plan....

IMPORTANT QUESTION!

How are standards and criteria to be chosen so as NOT to be arbitrary?

Any “number” (i.e. length, width, etc.) chosen can be challenged as being arbitrary unless its based upon some reasoned investigation that has meaning.

Length of 50 feet? Why not 55? 45?

Implementation Phase, Lower CT River Dock Study: Creation of a General Plan

Categorization of the Lower CT River Shoreline:

- Lower river to be separated into four categories using environmental, navigational and scenic criteria in order to establish areas where docks with differing characteristics should be constructed.
- Rhode Island CZM - Six (6) Shoreline Categories – Types 1 through 6
- Pleasant Bay (MA) Resource Alliance – Resource Indexing Scheme

- Identified SEVEN resource parameters impacted by *dock construction & use*
- Indexed each resource parameter based on scores ranging from "0" to "3"

"0" = Dock construction/use causing lowest sensitivity or impact

"3" = Dock construction/use causing highest sensitivity or impact

- Scores from seven maps totaled on a "Master" Resource Sensitivity Index Map (RSIM)

Lowest scores – Shoreline areas where dock construction and use will cause *least* impact

Highest scores – Shorelines areas where dock construction and use will cause *most* impact

Seven Resource Parameters

- (1) Width of Intertidal Vegetation (tidal wetlands)
- (2) Location of Submerged Aquatic Vegetation (SAV)
- (3) Width of Intertidal Flats
- (4) Waterbody Width (river and cove)
- (5) Ecological, Wildlife and Fisheries Resources (EWF)
- (6) Patterns of Paddlecraft Navigation
- (7) Visual Assessment/Scenic Resources

Width of Intertidal Vegetation

(Based Upon *Area* of Vegetation Shaded; Independent of "Value")

- "0" 0 to 25 feet of wetlands spanned
(Little or No Impact)
- "1" 25 to 50 feet spanned (Moderate Impact)
- "2" 50 to 100 feet spanned (Strong Impact)
- "3" > 100 feet spanned (Severe Impact)

Location of Submerged Aquatic Vegetation

(Based on Quantity of SAV)

- "0" Areas where NO SAV identified
(Little or No Impact)
- "1" Areas with 0 to 100,000 Sq. Meters SAV
(Moderate Impact)
- "2" 100,000 to 400,000 Sq. Meters SAV
(Strong Impact)
- "3" 400,000 to 1,000,000 Sq. Meters SAV
(Severe Impact)

Sidebar
DEP Policy for
Reasonable Riparian Access

In most cases, fixed timber pier extending to MLW with a ramp and 100 square foot float extending waterward of that point.

Width of Intertidal Flats

(Measured From HTL to MLW – area affected by tide)

- "0" 0 to 25 feet of intertidal flat spanned
(Little or No Impact)
- "1" 25 to 50 feet spanned (Moderate Impact)
- "2" 50 to 75 feet spanned (Strong Impact)
- "3" > 75 feet spanned (Severe Impact)

Width of Waterbody

(Based on Projection of a 100 Foot Dock)

Indexed at half the value of the other resources

"0" Width > 2000 feet (Little or No Impact)

"0.5" Width between 1500 and 2000 feet
(Moderate Impact)

"1.0" Width between 1200 and 1500 feet
(Strong Impact)

"1.5" Width between 800 and 1200 feet
(Severe Impact)

Ecological, Wildlife & Fisheries Resources

EW&F Resources include:

Staging areas for anadromous/diadromous fish

Concentration areas for species such as pintail, green-winged teal, mallards and black ducks

Important migratory feeding areas including Whalebone Cove and similar sensitive areas

Specific roosting and perching sites

Forest floodplain

Ecological, Wildlife and Fisheries Resources

(Based on Proximity to Resources, All Equally Valued)

- "0" > 1/2 mile from EF&W Resources
(Little or No Impact)
- "1" 1/4 to 1/2 mile from EF&W Resources
(Moderate Impact)
- "2" 0 to 1/4 mile from EF&W Resources
(Strong Impact)
- "3" Within identified EF&W Resource
(Severe Impact)

Patterns of Small Craft Navigation

(Based Upon *Commonly-used* Launch Sites)

"0" Excursions greater than 2 miles from launch site (Little or No Impact)

"1" Excursions from 1 to 2 miles (Moderate Impact)

"2" Excursions from ½ to 1 mile (Strong Impact)

"3" Excursions from launch site out ½ mile (Severe Impact)

Visual Assessment

(Based on Public Views From the 10 Most Prominent Public Viewing Locations (PVL) and the State of Maine's Aesthetic Review Process
Blocking, Obscuring or Spatially Dominating a Viewshed)

Ten Most Prominent Viewing Locations Chosen:

Haddam Meadows State Park

Goodspeed and Camelot Cruise docks below Goodspeed Bridge

Gillette's Castle

Chester Ferry, East and West Slips

Deep River Town Landing, Kirtland Street

Riverfront stretches along the Essex Steam Train Route

River Road, Deep River (winter)

CT River Museum/Town Landing, Essex Village

DEP Marine Headquarters, Ferry Landing, Old Lyme

Saybrook Point Waterfront, Old Saybrook

Visual Assessment

- "0" All other river segments (Little or No Impact)
- "1" River segments located further than 1 mile from, and adjacent to, an identified Public Viewing Location, and river segments seen from across a waterbody, between ½ and 1 mile from an identified PVL (Moderate Impact)
- "2" River segments from ½ to 1 mile of, and adjacent to, an identified PVL, and river segments seen from across a waterbody up to ½ mile from an identified PVL (Strong Impact)
- "3" River segments within ½ mile of, and adjacent to, an identified PVL (Severe Impact)

“Master” Resource Sensitivity Index Map

- Index Scores for each of seven individual resource parameter maps totaled and plotted on “Master” RSIM Map
- Highest possible score = 19.5
- Lowest possible score = 0
- Range between 0 and 19.5 divided into four separate categories – Type “A”, “B”, “C”, “D”

"Master"

Resource Sensitivity Index Map

Type "A" Severe Sensitivity or Impact

Cumulative Impact Score of
Individual RSIMs > 10

Type "B" Strong Sensitivity or Impact

Cumulative Impact Score of
Individual RSIMs - 7.0 to 10.0

"Master"

Resource Sensitivity Index Map

Type "C" Moderate Sensitivity or Impact

Cumulative Impact Score of
Individual RSIMs – 3.5 to 6.5

Type "D" Little or No Sensitivity/Impact

Cumulative Impact Scores of
Individual RSIMs – 0 to 3.0

Model "Standards" for Type "A", "B", "C" and "D" Shorelines

- Based on Lyme boundaries and area allowances Section 22a-360 (formerly Sec. 25-7 CGS)(1980)
- Model standards are based on overall dock area. Dock area includes that of fixed pier, ramp and floating dock at MHW
- Dock parameters (length, width) can be adjusted as long as the total dock area doesn't exceed specific dock area allowance for any given shoreline category

“Standards” Summary

- (a) Maximum AREA allowed
- (b) Maximum LENGTH allowed based on MLW
- (c) INCREASED Area Allowance for Shared Docks
- (d) Minimum Height above Wetlands
- (e) Prohibition of Mechanical Lifts

Type "A" – Severe Sensitivity/Impact

- (a) Total dock area shall not be greater than **300 SF**
- (b) Dock shall not extend more than 25% of the distance to the opposite shore, or **40 feet beyond MLW**, whichever is the lesser distance
- (c) Shared structures encouraged, with such shared structure being increased in area by **30%** in order to accommodate riparian right of access for both waterfront property owners
- (d) Structures over wetlands shall not be wider than 4 feet and must be elevated at least 5 feet above the marsh surface. No fixed timber pier shall exceed 5 feet in width.
- (e) If proposed for an area where individual RSIM for **VISUAL IMPACT** is indexed as a "2" or "3", mechanical boat lifts are prohibited

Type "B" – Strong Sensitivity/Impact

- (a) Total dock area shall not be greater than 350 SF
- (b) Dock shall not extend more than 25% of the distance to the opposite shore, or 40 feet beyond MLW, whichever is the lesser distance
- (c) Shared structures encouraged, with such shared structure being increased in area by 35% in order to accommodate riparian right of access for both waterfront property owners
- (d) Structures over wetlands shall not be wider than 4 feet and must be elevated at least 5 feet above the marsh surface. No fixed timber pier shall exceed 5 feet in width.
- (e) If proposed for an area where individual RSIM for VISUAL IMPACT is indexed as a "2" or "3", mechanical boat lifts are prohibited

Type "C" – Moderate Sensitivity/Impact

- (a) Total dock area shall not be greater than 400 SF
- (b) Dock shall not extend more than 25% of the distance to the opposite shore, or 50 feet beyond MLW, whichever is the lesser distance
- (c) Shared structures encouraged, with such shared structure being increased in area by 40% in order to accommodate riparian right of access for both waterfront property owners
- (d) Structures over wetlands shall not be wider than 4 feet and must be elevated at least 5 feet above the marsh surface. No fixed timber pier shall exceed 5 feet in width.
- (e) If proposed for an area where individual RSIM for VISUAL IMPACT is indexed as a "2" or "3", mechanical boat lifts are prohibited

Type "D" – Little or No Sensitivity/Impact

- (a) Total dock area shall not be greater than 600 SF. **IN NO EVENT SHALL A TYPE "D" DOCK EXCEED A LENGTH OF 100 FEET.**
- (b) Dock shall not extend more than 25% of the distance to the opposite shore, or 50 feet beyond MLW, whichever is the lesser distance
- (c) Shared structures encouraged, with such shared structure being increased in area by 40% in order to accommodate riparian right of access for both waterfront property owners
- (d) Structures over wetlands shall not be wider than 4 feet and must be elevated at least 5 feet above the marsh surface. No fixed timber pier shall exceed 5 feet in width.
- (e) If proposed for an area where individual RSIM for VISUAL IMPACT is indexed as a "2" or "3", mechanical boat lifts are prohibited

Model Standards Summary

(a) Area Allowance, (b) Length [MLW],
(c) Shared Allowance

Type "A" - 300 SF, 40 Feet, 30%

Type "B" - 350 SF, 40 Feet, 35%

Type "C" - 400 SF, 50 Feet, 40%

Type "D" - 600 SF, 50 Feet, 40%

Not to exceed 100 foot length
from HTL (22a-359(c)CGS)

Correlation of Model "Standards" with 38 Issued Permits, 2000 through 2003

Breakdown of Categories

Type "A" - 12 permits

Type "B" - 9 permits


Type "C" - 12 permits


Type "D" - 5 permits

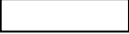
PERMITTEE	Permit #	Date Issued	Town/Water Body	Total Index and Type	Actual Area/ "Allowable" Area	A	B	C	D
Horn, Richard*	200203761-SG	10/22/03	ES/North Cove	"3" – Severe (Type A)	845sf / 300sf	86	86	172	18
Lord, John & Wendy	200100153-MG	10/29/02	OS/CT River	"1" – Moderate (Type C)	621 / 400	66	84	150	0
NS Properties	200202167-MG	12/12/02	OS/CT River	"0" – Little or None (Type D)	550 / 600	32	78	110	0
Poriotis, Wesley	200300289-MG	TD 11/1/03	OL/CT River	"1" – Moderate (Type C)	740 / 400	63	67	130	0
Malcynsky, Jay	200100155-SJ	5/24/01	CH/CT River	"1" – Moderate (Type C)	515 / 400	32	60	92	0
Lambe, Terrance/Brenda	200002928-SG	2/27/03	DR/CT River	"1" – Moderate (Type C)	568 / 400	72	48	120	0
Attridge, Wendler, Dunn	199901398-SJ	4/17/03	OS/North Cove	"2" – Strong (Type B)	341 / 350	18	48	66	10
Proctor, Alan	200002314-SG	6/27/02	OL/Lords Cove	"0" – Little or None (Type D)	255 / 600	18	45	63	20
Cullen, James	199901049-SJ	3/2/01	HM/CT River	"1" – Moderate (Type C)	305 / 400	18	45	63	0
Dean, Robert & Lisa	200001826-SJ	8/16/02	OS/North Cove	"2" – Strong (Type B)	273 / 350	16	44	60	15
Lee, Thomas & Loretta	200202982-MG	4/24/03	ES/South Cove	"2" – Strong (Type B)	399 / 350	53	42	95	0
Carlson, William	200200402-GS	11/22/02	ES/CT River	"1" – Moderate (Type C)	368 / 400	40	42	82	0
Lederman, M & L	199902811-SG	5/26.03	HM/CT River	"1" – Moderate (Type C)	690 / 400	96	42	138	16
Linburg, Dr. Richard	200100415-GS	12/17/02	DR/CT River	"0" – Little or None (Type D)	260 / 600	34	40	74	0
Catanzaro, Scott	200100181-SJ	9/28/01	HM/CT River	"1" – Moderate (Type C)	230 / 400	---	39	---	0
Boyd, Timothy	200002069-KC	3/26/01	DR/CT River	"1" – Moderate (Type C)	331 / 400	39	38	77	0
Trumbell, George	200102780-MG	4/24/02	OS/North Cove	"2" – Strong (Type B)	289 / 350	17	38	55	18
Finkeldey, Robert	200002307-KC	2/2/01	OL/CT River	"1" – Moderate (Type C)	488 / 400	13	34	47	0
Bagg, Thomas & Janet	200103011-MG	4/29/03	OL/Lord's Cove	"1" – Moderate (Type C)	349 / 400	34	34	68	48
Richardson & Karter	200302340-MG	TD	OL/Back River	"3" – Severe (Type A)	305/300	29	34	65	10
Spector, Saul	200204290-MG	6/2/03	OS/North Cove	"2" – Strong (Type B)	186 / 350	0	32	32	0
Mosa, Anthony & Lilian	200003187-MG	TD10/24/03	ES/South Cove	"2" – Strong (Type B)	410 / 350	50	30	80	0
D'Amato, Linda & Paul	200203836-GS	TD	OL/Lt River	"3" – Severe (Type A)	260 / 300	25	30	55	0
Klinck, Kathleen	199804226-SJ	2/26/03	EH/CT River	"0" – Little or None (Type D)	241 / 600	14	30	44	0
Talcott Farm Assoc.	199901318-SJ	???	OL/Lt River	"3" – Severe (Type A)	1050 / 300	202	28	230	(220)


Merrick, Steven	200201317-GS	12/17/02	OL/Black Hall River	"3" – Severe (Type A)	275 / 300	31	26	57	32
Haskos, Eliz. & Nicholas	200203549-MG	TD	OL/Lieutenant River	"3" – Severe (Type A)	802/300	159	26	183	151
Rocco, Steven	LIS-GP-001	7/25/03	HM/CT River	"0" – Little or None (Type D)	160 / 600	42	23	65	0
Schaller, Arthur & Judith	200103104SJ/SG	7/15/03	CH/CT River	"3" - Severe (Type A)	392 / 300	78	20	98	0
Hanson, Craig	2003XXXXXSG	UR	CH/CT River	"2" – Strong (Type B)	255 / 350	27	20	47	0***
McDermott, Sally & David	200203523-MG	12/4/03	ES/North Cove	"3" - Severe (Type A)	340 / 300	30	18	48	38
Jacobi, Henry	199903512-SG	6/27/02	OS/Little Rock Crk	"3" - Severe (Type A)	170 / 300	394	16	410	8
Myers, Noah & Robin	200103185-MG	4/28/03	Lyme/Hamburg Cove	"1" – Moderate (Type C)	136 / 400	4	16	20	0
Landow, Stephen	200003195-KZ	12/18/01	ES/Middle Cove	"3" - Severe (Type A)	176 / 300	0	15	15	0
Reddington, Kathryn	200300471-MG	12/24/03	OS/Hydes Creek	"2" – Strong (Type B)	464 / 350	90	9	95	90
Doyen, Robert	200103799-MG	9/24/02	OL/Duck Bay	"3" – Severe (Type A)	196 / 300	---	9	28 MHW	8
Thorn, William & Gladys	200200718-MG	4/24/03	ES/South Cove	"2" – Strong (Type B)	252 / 350	38	0	38	38
Ringering, Robert	200200428-SG	4/23/03	ES/North Cove	"3" - Severe (Type A)	760 / 300	178	0	178	20
Hearn, William	200301065-SG	UR	CH/Chester Creek	"3" - Severe (Type A)	100 / 300	24	0	24	4


Type "A", "Severe" Sensitivity

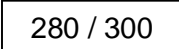
 **Type "B", "Strong" Sensitivity**

 **Type "C", "Moderate" Sensitivity**

 **Type "D", "Low to No" Sensitivity**

 **Dock permits which are *consistent* with Dock Design Guidelines**

 **Dock permits which are *inconsistent* with Dock Design Guidelines**

 **280 / 300 Total permitted dock area vs. Dock Design Guideline "Area Allowance"**

Average Length, HTL to MLW (River Only)	45 feet		
Average Length, HTL to MLW (River and Coves)	39 feet		
Average Length Waterward of MLW	34 feet		
Average Total Length Waterward of HTL		91 feet	
Average Total Length Waterward of HTL**		80 feet	
Average Dock Length Over Tidal Wetlands			21 feet

Correlation of Model “Standards” With 38 Issued Permits, 2000 Through 2003

61% (23) of permitted docks were consistent
with recommended area guidelines

39% (15) of permitted docks exceeded
recommended area guidelines

Correlation of Model "Standards" With 38 Issued Permits, 2000 Through 2003

With Allowable Area increased by 50 SF for
Type "A", "B" and "C" Categories

(i.e. 350 SF allowable area vs. 300 SF for Type "A")

71% (26) of permitted docks were consistent with
recommended guidelines

29% (12) of permitted docks exceeded
recommended guidelines

Model “Standards” Conclusion

- Model “Standards” were successful in matching issued permits in 6 of 10 instances
- Increase in “area allowance” of 50 SF allowed for consistency in 7 of 10 permits
- Determined that a 6 of 10 correlation was adequate rather than increase “area allowances” by 50 SF to increase correlation rate by 10%

Use of Resource Indexing

- *Model for standards/criteria to be enabled under PA 04-183 for Harbor Mgmt Plans*
- Real Estate Agents selling waterfront lots
- Dock design engineers
- Attorneys involved in waterfront purchases
- Gateway area land use offices
- DEP/OLISP permit analysts

ULTIMATE GOALS?

For ALL users to utilize and enjoy the unique, special and FINITE resources of the lower Connecticut River.

Ultimately, the goal is the balancing of public and private rights while at the same time preserving the resource that makes the area so desirable.

