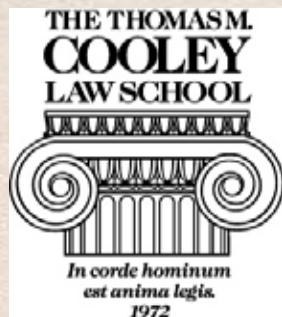


THE PUBLIC TRUST DOCTRINE and OFFSHORE ENERGY FACILITIES: MODERN APPLICATION of an ANCIENT DOCTRINE

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Traverse City, Michigan

October 27, 2008

I. PURPOSE OF PRESENTATION

- ◆ Trace the historical origins and geographic migration of the Public Trust Doctrine (PTD);
- ◆ Discuss the evolution of PTD from protecting commerce, fishing & navigation to encompassing ecological values, wetlands and beach access;
- ◆ Analyze the PTD as an important legal authority and an “enforceable policy” to manage offshore energy facility impacts on state submerged lands *and* OCS federal lands.

II. HISTORICAL ORIGINS OF PTD - AN ANCIENT & VENERABLE DOCTRINE

A. First codified in Roman Law in sixth century A.D. in Institutes of Justinean 2.1.1:

“By the law of nature these things are common mankind – the air, running water, the sea, and consequently the shores of the sea. No one, therefore, is forbidden to approach the seashore, provided he respects habitation, monuments, and the buildings, which are not, like the sea, subject only to the law of nations.”



B. PTD Incorporated into English Common Law:



“In England, from the time of Lord Hale, it has been treated as settled that the title in the soil of the sea, or of arms of the sea, below ordinary high-water mark is in the king . . . [and] is held subject to the public right, jus publicum, of navigation and fishing.”

Shively v. Bowlby, 152 U.S. 1, 13 (1894)

C. **First Incorporated in American Jurisprudence in 1821 Involving Oyster Beds on Raritan Bay, N.J.:**

“And I am of the opinion further, that, upon the Revolution, all those royal rights [of King Charles II] vested in the people of New Jersey, as the sovereign of the country and are now in their hands; and that . . . they may build dams, locks, and bridges for the improvement of navigation . . . and improve fishing places . . . [and] they may create, improve and enlarge oyster beds”



Arnold v. Mundy, 6 N.J.L. 1, 10 (1821)

In other words:

The states stepped into the shoes of the King of England and became the trustees of the beds of navigable waters and tidelands.

This principle is adopted in 1842 by the U.S. Supreme Court:

“For when the revolution took place, the people of each state became themselves sovereign; and in that character hold the absolute right to all their navigable waters, and the soils under them, for their own common use, subject only to the rights surrendered by the Constitution to the general government.”

Martin v. Waddell's Lessee, 41 U.S. 367, 410 (1842)

D. The PTD Migrates Inland Up the Mississippi River in 1876:



“It appears to be the settled law of that State [Iowa] that the title of the riparian proprietors on the banks of the Mississippi extends only to the ordinary high-water mark, and that the shore between high and low-water mark, as well as the bed of the river, belongs to the State. This is also the common law with regard to navigable waters; ... and it is especially true with regard to the Mississippi and its principle branches.”

***Barney v. Keokuk*, 94 U.S. 324, 336 (1876)**

E. Finally, the PTD sails into the Great Lakes in 1892:

-The Court had previously held in the case of the *Genesee Chief*, 12 U.S. (How.) 443 (1851) that the Great Lakes were commercially navigable and subject to federal admiralty law.

The Court then extended the PTD into the Great Lakes in what Professor Joe Sax describes as the “lodestar” public trust case, *Illinois Central R. Co. v. Illinois*, 146 U.S. 387 (1892):

“We hold, therefore, that the same doctrine as to the dominion and sovereignty over and ownership of lands under tide waters in the borders of the sea, and that the lands are held by the same right in the one case as in the other, subject to the same trusts and limitations.”

Id. at 436-37

III. WHAT'S THE NATURE OF THE PUBLIC TRUST?

- A. The basic tenant of the public trust doctrine is that certain natural resources, especially the waters and beds of the sea coast and large navigable lakes and rivers, are of such importance to the public that they are incapable of purely private ownership and control.



B. The PTD is a Different Type of Title:

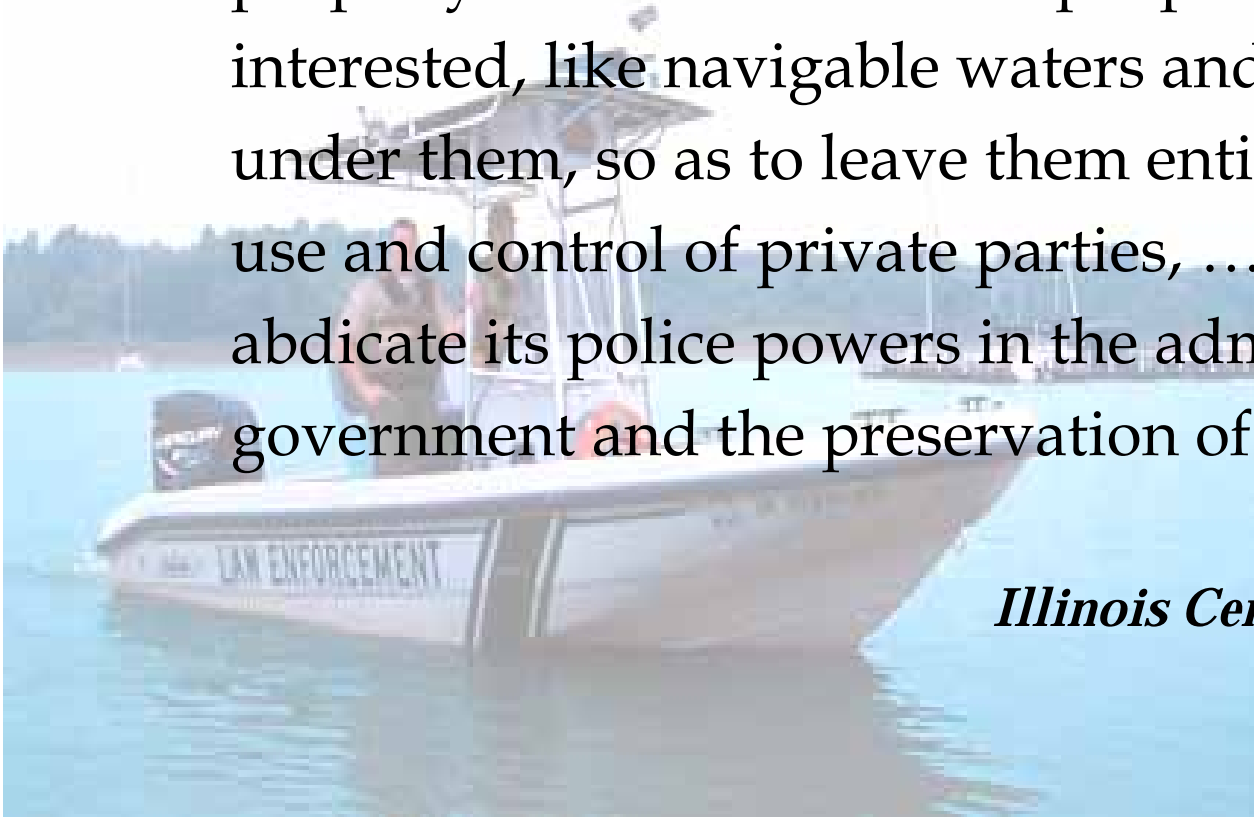
“But it is a title different in character from that which the state holds in lands intended for sale. It is a title held in trust for the people of the state that they may enjoy the navigation of the waters, carry on commerce over them, and have liberty of fishing therein, *freed from the obstruction or interference of private parties.*”

Illinois Central, 146 U.S. at 452
(emphasis added)

C. States Have a Duty to Enforce the Trust:

“The state can no more abdicate its trust over property in which the whole people are interested, like navigable waters and the soils under them, so as to leave them entirely under the use and control of private parties, ... than it can abdicate its police powers in the administration of government and the preservation of the peace.”

Illinois Central, 146 U.S. at 453.



D. The Trust is a High, Solemn & Perpetual Duty

In extending the public trust doctrine into Michigan's navigable rivers, the Michigan Supreme Court described the trust in 1926 as follows:

“So long as water flows and fish swim in Pine River, the people may fish at their pleasure in any part of the stream subject only to the restraints and regulations imposed by the State. In this right they are protected by a *high, solemn* and *perpetual* trust, which it is the duty of the State to forever maintain.”

Collins v. Gerhardt, 237 Mich. 38, 49 (1926)
(emphasis in original)

IV. THE PTD EVOLVES TO EMBRACE ECOLOGICAL VALUES & CONCERNS

A. The traditional uses protected by the PTD were:

- C navigation;
- C fishing;
- C commerce

Following the 1920's the PTD went into a period of hibernation in many parts of the country, including Michigan and other Great Lakes states.



B. Professor Joe Sax Breathes Life Back into the PTD:

In 1970, Professor Joe Sax published his article entitled "*The Public Trust Doctrine in Natural Resources Law: Effective Judicial Intervention*," 68 Mich. L. Rev. 473, which is considered to be one of the ten most influential law review articles ever written.



Professor Sax revived the PTD by stating:

“Of all the concepts known to American law, only the public trust doctrine seems to have the breadth and substantive content which might make it useful as a tool of general application for citizens seeking to develop a comprehensive legal approach to resource management problems.”



***Id.* at 474.**

C. California Recognizes that the PTD Embraces Ecological Values in 1971:

“There is a growing public recognition that one of the most important public uses of tidelands – a use encompassed within the tidelands trust – is the preservation of those lands in their natural state, so that they may serve as ecological units for scientific study, as open space, and as environments which provide food and habitat for birds and marine life....”



Marks v. Whitney, 6 Cal.3d 251, 259-260 (1971).



**D. Wisconsin Recognizes that the PTD
Protects Freshwater Wetlands in 1972:**

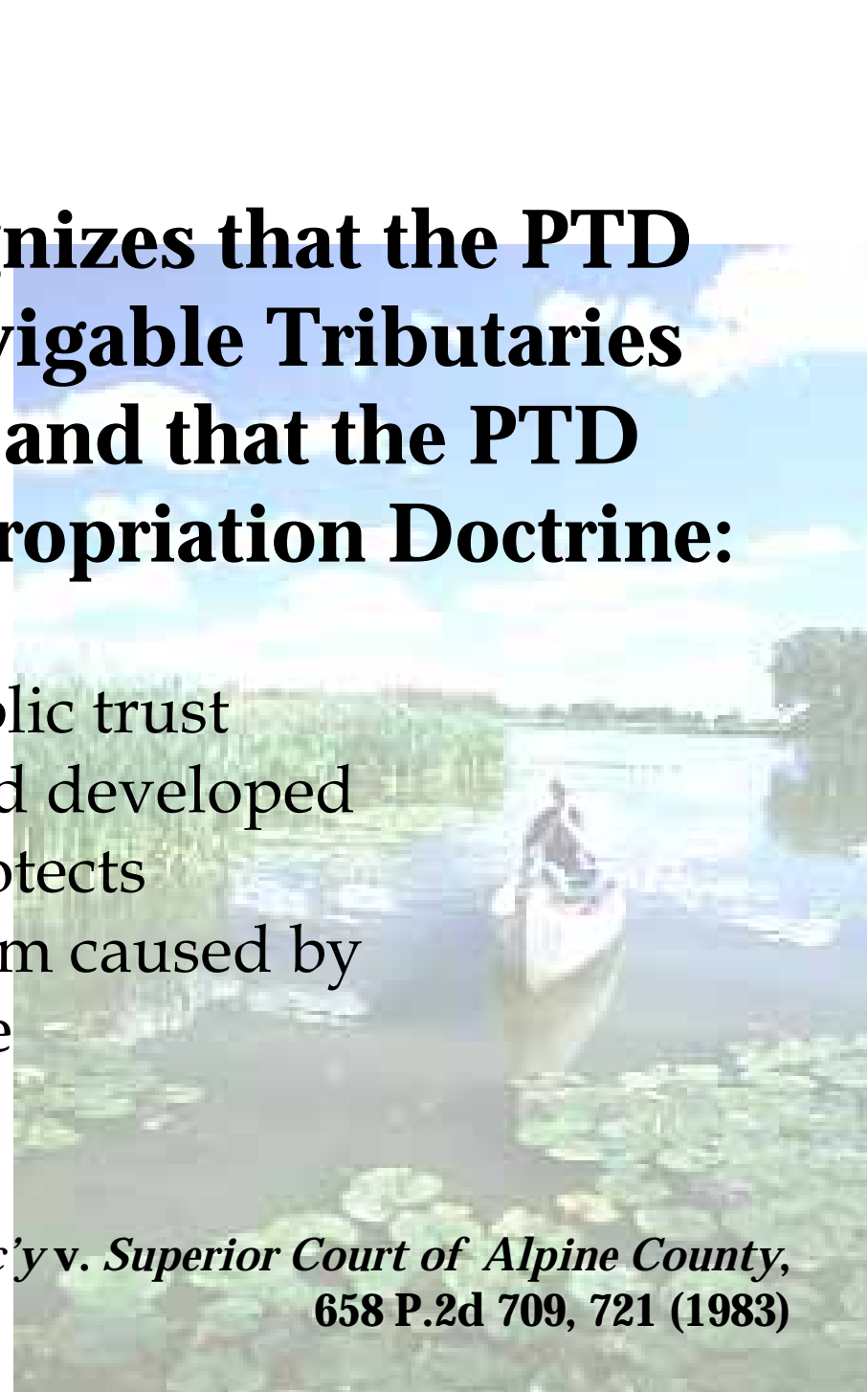
“The state of Wisconsin under the trust doctrine has a duty to eradicate the present pollution and to prevent further pollution in its navigable watersswamps and wetlands were once considered wasteland, undesirable, and not picturesque. But as the people became more sophisticated, an appreciation was acquired that swamps and wetlands serve a vital role in nature, are part of the balance of nature and are essential to the purity of the water in our lakes and streams.”

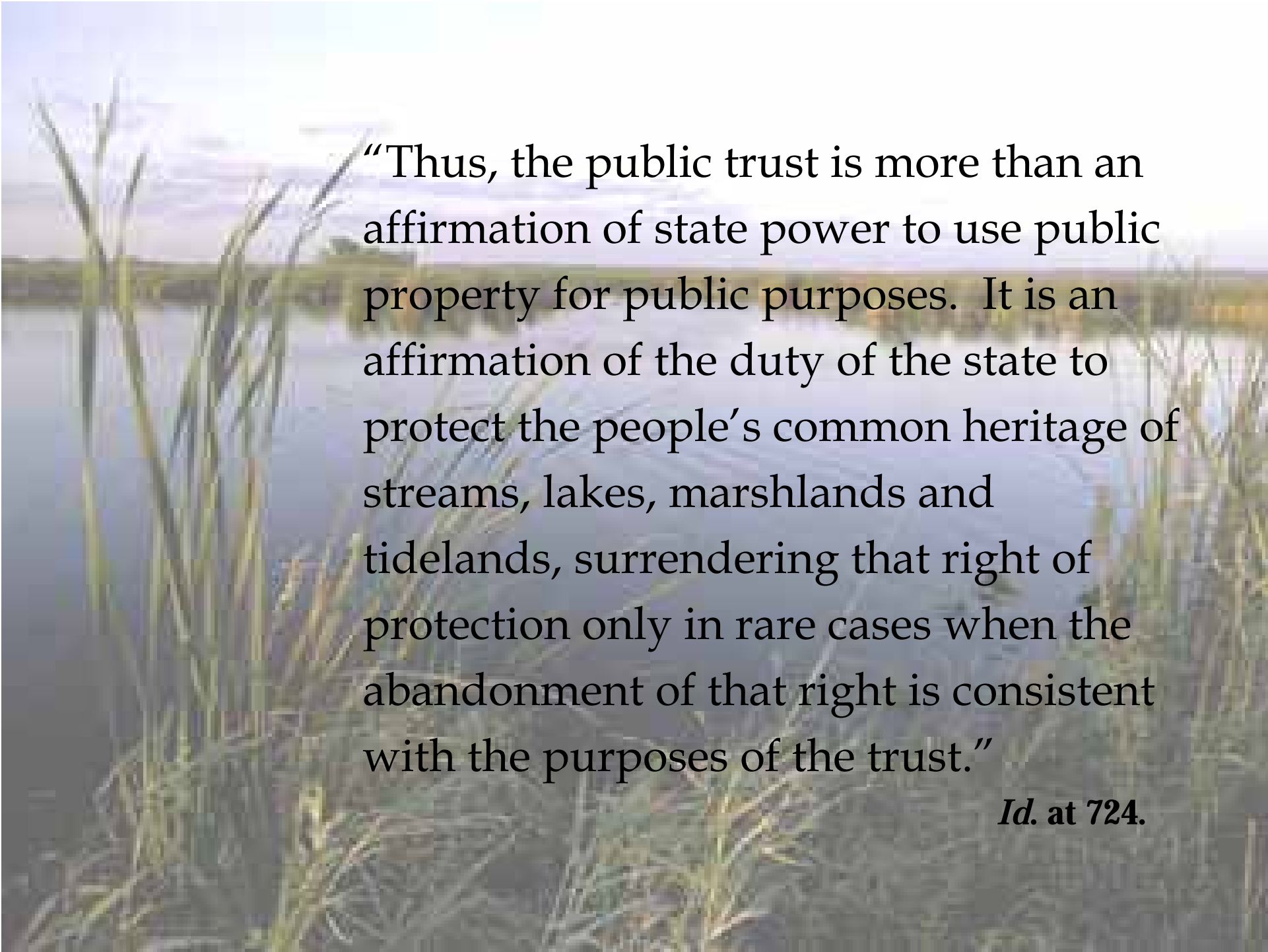
Just v. Marinette County, 201 N.W.2d 761, 768 (1972).

E. California Recognizes that the PTD Protects Non-navigable Tributaries from Diversions and that the PTD Trumps the Appropriation Doctrine:

“We conclude that the public trust doctrine, as recognized and developed in California decisions, protects navigable waters from harm caused by diversion of non-navigable tributaries.”

National Audubon Soc’y v. Superior Court of Alpine County,
658 P.2d 709, 721 (1983)





“Thus, the public trust is more than an affirmation of state power to use public property for public purposes. It is an affirmation of the duty of the state to protect the people’s common heritage of streams, lakes, marshlands and tidelands, surrendering that right of protection only in rare cases when the abandonment of that right is consistent with the purposes of the trust.”

Id. at 724.

F. U.S. Supreme Court Confirms that the PTD Extends to Shallow Tidal Wetlands:

“Consequently, we reaffirm our long-standing precedents which hold that the states, upon entry into the Union, received ownership of all lands under waters subject to the



ebb and flow of the tide....[T]he lands at issue here [42 acres of tidal wetlands] are under tide-waters, and therefore passed to the State of Mississippi upon its entrance into the Union.

Phillips Petroleum Co. v. Mississippi,
484 U.S. 469, 476 (1988).



G. PTD Extends to Protecting Public Right of Passage Along Great Lakes Shoreline:

▶ “Because walking along the lakeshore is inherent in the exercise of traditionally protected public rights of fishing, hunting, and navigation, our public trust doctrine permits pedestrian use of our Great Lakes, up to and including the land below the ordinary high water mark.”

Glass v. Goeckel, 473 Mich. 667, 674-675 (2005).

▶ “Therefore, although the state retains the authority to convey lakefront property to private parties, it necessarily conveys such property *subject to the public trust.*”

Id. (italics in original).

Highlights of *Glass v. Goeckel*:

- ◆ Established a public right of passage along dry sand and exposed lakebed below the ordinary high-water mark of Michigan's Great Lakes shoreline;
- ◆ Reaffirmed the public trust doctrine and the state's legal authority and duty to protect public trust resources;
- ◆ Rejected a claim of taking private property along the Great Lakes shoreline where the state asserts its public trust authority.



The background of the slide is a photograph of a wind farm. Several white wind turbines are visible, extending from the foreground into the distance over a blue body of water. The sky is a clear, light blue. The text is overlaid on this image.

V. **TAKING THE PUBLIC TRUST DOCTRINE BACK TO ITS ROOTS**

- A. “It is a title held in trust for the people of the state that they may enjoy the navigation of the waters, *carry on commerce over them*, and have liberty of fishing therein, freed from the obstruction or interference of private parties.”

Illinois Central, 146 U.S. at 452 (emphasis added)

B. Energy Production and Transmission is Clearly Commerce

Four energy statutes enacted pursuant to Congress's Commerce Clause power:

- The Natural Gas Act, 15 U.S.C. §717 et seq. (1997), which regulates **interstate gas pipelines**;
- The Federal Power Act, 16 U.S.C. §791a et seq. (2000), which regulates **hydroelectric facilities**;
- The Outer Continental Shelf Lands Act, 43 U.S.C. §1331 et seq. (2007), which regulates **oil and gas development** on OCS;
- The Energy Policy Act of 2005, 43 U.S.C. §1337(p)(2007), which authorizes leases and easements for **renewable energy production** on OCS.

C . Significant Wind Power Potential

- Wind power has grown at a dramatic rate over the last decade and is now the most rapidly expanding commercial scale energy source in the world;

Russell, 2004

- Realistic projection of windpower comprising 20% of the nation's electricity needs by 2030 - with offshore windpower providing about 1/6 of wind power;

U.S. DOE 20% Wind Energy by 2030, (2008)

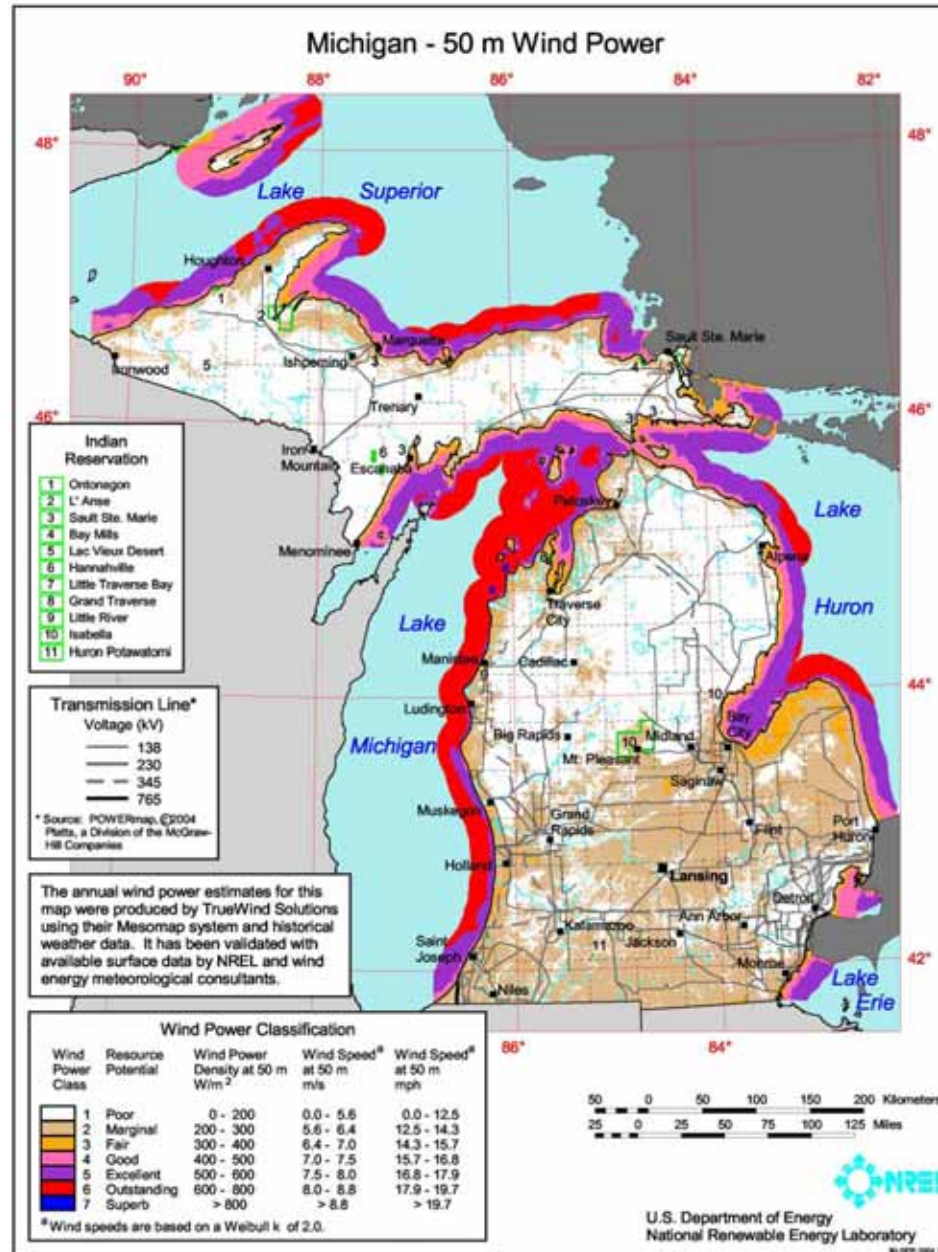
- Denmark is presently the leader in offshore wind energy with 8 operating wind farms with a total capacity of 423 MW - other large projects planned in Europe and North America are planned in the next 5 to 10 years.

Mortensen, 206-207 (2008)

D. Recent Trends and Examples

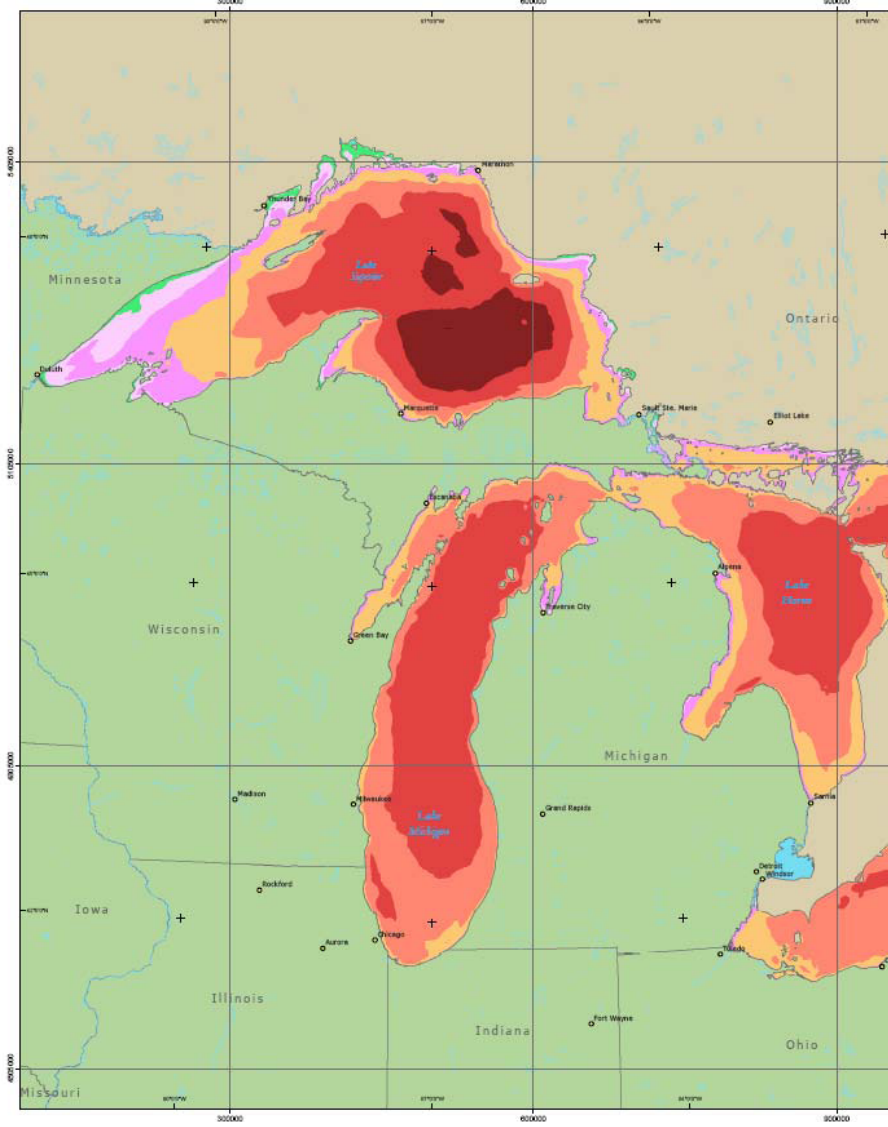
- As of 2008, at least 28 states have enacted Renewable Portfolio Standards (RPS) that require between 10-20% of state's electric supply be provided by renewable sources.
Rosenberg, at 537 (2008) and Lansing State Journal, 1B, Oct. 7, 2008
- MSU study identifies offshore wind potential that realistically is 3 to 6 times greater than onshore potential.
Land Policy Institute, Michigan's Offshore Wind Potential, 12 (2008)
- New Jersey recently awarded rights for \$1 billion offshore wind farm that includes 96 turbines to produce 346 MW of electricity.
N.Y. times, Oct. 4, 2008

ONSHORE WIND POWER POTENTIAL

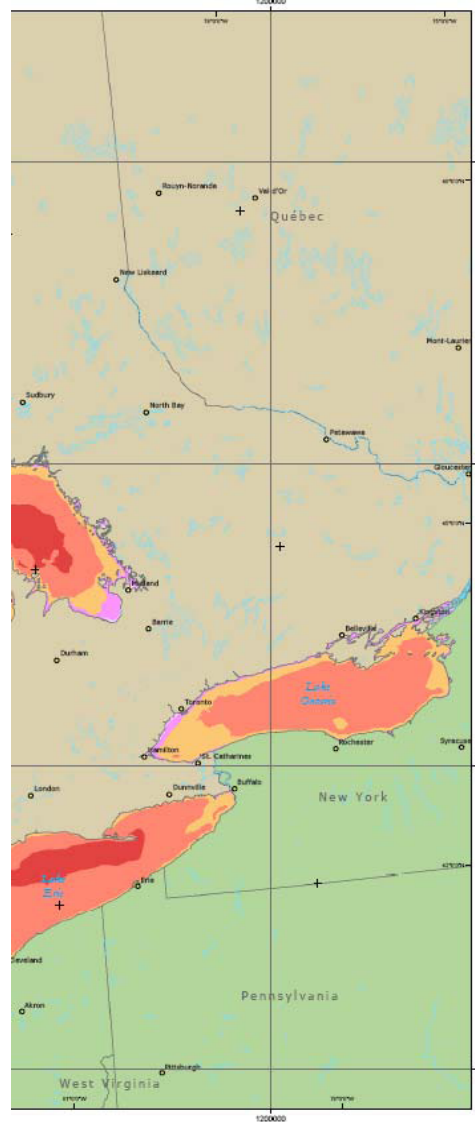


OFFSHORE WIND POWER POTENTIAL

WIND RESOURCE OF THE GREAT LAKES *Mean*



Annual Wind Speed at 150 Meters



MESOMAP

Inset

Reference

Disclaimer

Originator

- City
- Water Body
- States
- Provinces

Mean Speed at 150 m

	mph	m/s
	< 12.3	< 5.5
	12.3 - 13.4	5.5 - 6.0
	13.4 - 14.5	6.0 - 6.5
	14.5 - 15.7	6.5 - 7.0
	15.7 - 16.8	7.0 - 7.5
	16.8 - 17.9	7.5 - 8.0
	17.9 - 19.0	8.0 - 8.5
	19.0 - 20.1	8.5 - 9.0
	20.1 - 21.3	9.0 - 9.5
	21.3 - 22.4	9.5 - 10.0
	> 22.4	> 10.5

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A map of the Great Lakes region in North America, showing the outlines of Minnesota, Wisconsin, Illinois, Michigan, Indiana, Ohio, Pennsylvania, New York, Ontario, and Quebec. The Great Lakes (Superior, Michigan, Huron, Erie, and Ontario) are highlighted in a light blue color. The text 'E. State PTD Authority Over Submerged Lands' is overlaid on the map.

E. State PTD Authority Over Submerged Lands

- In Great Lakes, 8 states have jurisdiction **offshore** to shared boundaries on Lake Michigan, and to international boundary with Province of Ontario on Lakes Superior, Huron, Erie & Ontario;
- Along ocean coasts, states have jurisdiction to 3 miles offshore, except Florida & Texas that extend 3 marine leagues;
- States can regulate directly any offshore wind farms located on state submerged lands – or any **utility cable connections** to power grids that cross state submerged lands.

A map of the Great Lakes region in North America, showing the five Great Lakes (Superior, Michigan, Huron, Erie, and Ontario) and the surrounding states and provinces. The submerged lands of the lakes are highlighted in a light blue color. The text 'F. States Have a Legal Duty to Protect Submerged Lands' is overlaid on the map.

F. States Have a Legal Duty to Protect Submerged Lands

- The PTD imposes a clear legal duty to protect navigation and recreational values, aquatic and marine fish and wildlife habitat, *and* to assure a fair economic return to state for use of publicly owned submerged lands.

Image © GLIN

VI. ENVIRONMENTAL ADVANTAGES OF WINDPOWER

“We’re borrowing money from China to buy oil from the Persian Gulf to burn in ways that destroy the planet. Every bit of that has to change”

Former Vice President, Al Gore
N.Y. Times, July 18, 2008

- Solution – replace all carbon-emitting forms of electricity production in U.S. within 10 years, replacing them with alternatives like solar, *wind*, geothermal, conservation and clean-coal technology.
Id.

A. Three Significant Environmental Advantages of Wind Power:

1) Clean, renewable source of electricity with virtually no greenhouse gas emissions:

- In 2007, nearly 17,000 MW of wind power **prevented** emission of approximately 28 million tons of CO₂;

AWEA, FAQ, (2008)

- The 20% Wind Scenario could **reduce** CO₂ emissions in 2030 by 825 million metric tons.

U.S. DOE, 20% Wind Energy by 2030, at 14, (2008)

A. Environmental Advantages of Wind Power (cont'd)

2) Significant reductions in toxic emissions from not burning coal:

- In 2002, coal burning power plants emitted 2488 pounds of **mercury**, or 37% of anthropogenic mercury emissions in Michigan;

MDEQ Mercury Strategy Staff Report, 28-32 (2008)

- Coal combustion in the U.S. found to be most significant source of **atmospheric deposition** of mercury to Great Lakes;

Cohen M, Artz R, et al., 262 (2004)

- Atmospheric deposition of mercury is a major loading pathway to Great Lakes – accounts for 75% of overall **mercury loading** to Lakes Michigan and Superior.

Id. at 247.

A. Environmental Advantages of Wind Power (cont'd)

- 3) Wind power contributes a significant **reduction in water useage** for cooling water - and associated entrainment and impingement impacts in coastal waters:
 - 20% wind scenario reduces cumulative water use in the electric sector by 8% (4 trillion gallons)

U.S. DOE, 20% Wind Energy by 2030, at 13 (2008)

B. Significant Advantage of Offshore Wind Farms Compared to Onshore Facilities

- Offshore wind turbines generate more power than onshore turbines because **wind speeds** are generally higher and wind is steadier offshore.

AWEA, FAQ (2008)

- The power output of two identical turbines will be approximately **50% greater** for an offshore turbine compared to a turbine sited onshore.

Mortensen, at 207 (2008)

- Offshore sites in Great Lakes are attractive because wind energy companies are looking for Class 4, Class 5 and higher wind resources that will allow new turbines to operate at high capacity.

Klepinger, Permitting Dry Run, 6 (2008)

C. Six Years of Environmental Monitoring at Two Large Danish Offshore Wind Farms Shows No Significant Adverse Impacts

Noteworthy findings include:

1. Turbine foundation armoring to prevent wave scour enhanced **habitat diversity** and increased local biomass by 50 to 150 times;
2. Marine mammals such as seals and harbor porpoises departed during site construction activities but returned when normal operations began;
3. Most bird species avoided the turbines, flying along the periphery of the wind farms, and infrared monitoring recorded **no bird collisions**.

Mortensen, at 187-189 (2008)



D. Properly Sited Offshore Wind Farm Arguably Is Consistent with PTD

Permitting a properly sited offshore wind farm, that avoids shipping lanes, critical habitat areas and migration corridors, arguably is consistent with a state's duty under both the **traditional view** of the PTD (ie. commerce) *and* a modern view that includes environmental protection, both at the specific project sites and a **broader trust responsibility** for controlling greenhouse gases and preventing global climate change.

VII. PTD IS A KEY “ENFORCEABLE POLICY” UNDER CZMA FEDERAL CONSISTENCY PROVISIONS

A. The federal consistency provisions of CZMA, 16 U.S.C. §1456 (2000), require that federal agency licensing or permitting must be consistent with “enforceable policies” of approved state coastal management programs:

- This represents a limited waiver of federal supremacy in managing Nation’s coastal resources, and
- Represents a major incentive for states to maintain their federally approved coastal programs.

Kalo, et al., Coastal and Ocean Law, 243 (2007)

B. PTD is clearly an “enforceable policy” under CZMA:

- The CZMA defines “enforceable policy” as “State policies which are legally binding through constitutional provisions, laws, regulations, land use plans, ordinances, or judicial or administrative decisions” 16 U.S.C. §1453(6a)
- The PTD is embodied in several state **constitutions** (Hawaii, La., Pa., & R.I.), most states’ **common law**, and many states’ **statutes** (eg. Part 325, Great Lakes Submerged Lands, MCL 324.32501 et seq. in Michigan).

Craig, at 20-21 (2007)

C. This provides coastal states with significant influence over federal licensing and permitting decisions:

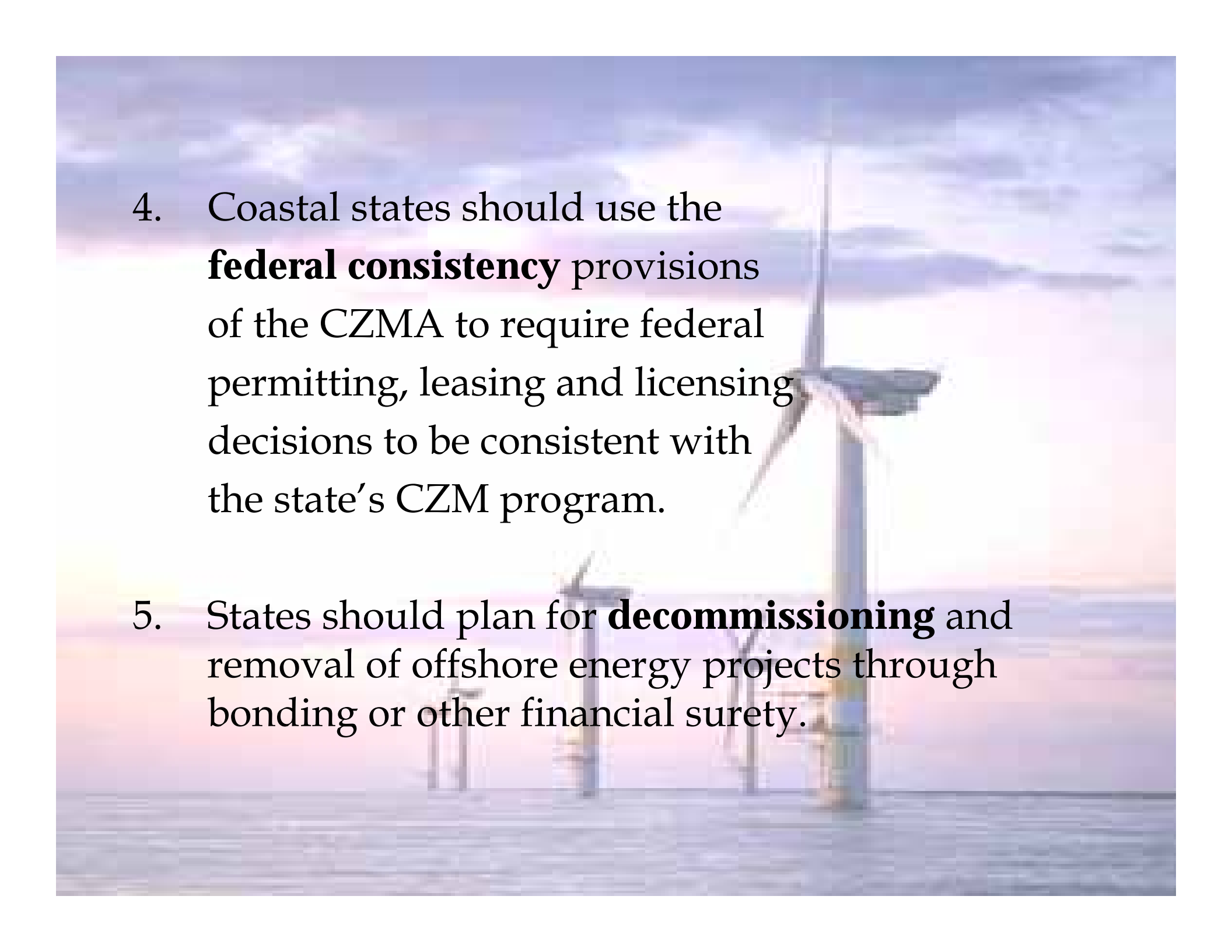
- Current NOAA regulations define a federal license or permit as “any authorization that an applicant is required by law to obtain in order to conduct activities affecting any land or water use or natural resource of the coastal zone and that any Federal agency is empowered to issue an applicant.”

15 C.F.R. §930.51(a).

- This certainly seems broad enough to encompass **leases and easements** for offshore wind farms in the U.S. territorial waters or on the OCS.

VIII. RECOMMENDATIONS:

1. States should use their full PTD authorities to **protect** their submerged lands resources and carefully regulate the design, location and construction of energy projects.
2. States should **proactively identify** important shipping lanes, bird migration corridors, and fisheries spawning and habitat areas as potential **exclusion areas** or marine protected areas.
3. States should develop proper **appraisal** methods to ensure that offshore energy facilities pay **fair market value** for use of public trust resources.

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- A photograph of several offshore wind turbines in the ocean at sunset. The sky is a mix of orange, pink, and blue, and the water is dark. The turbines are silhouetted against the bright sky.
4. Coastal states should use the **federal consistency** provisions of the CZMA to require federal permitting, leasing and licensing decisions to be consistent with the state's CZM program.
 5. States should plan for **decommissioning** and removal of offshore energy projects through bonding or other financial surety.

IX. CONCLUSIONS:

- ♦ PTD is a dynamic common law doctrine;
- ♦ Provides states with strong authority and an affirmative duty to protect trust resources;
- ♦ Certainly broad enough to encompass environmental protection and ecological values;
- ♦ Key “enforceable policy” for states to assert under federal consistency provisions of CZMA for licenses, permits, leases, and easements;
- ♦ Important tool for citizens to use to hold states accountable for protecting public trust rights, resources and responsibilities.