



MEETING 3: CONCEPTUAL OSW PORT ALTERNATIVES AND ANALYSIS

Thursday, September 29, 2022 – 9am-4:30pm
Maine DOT Headquarters
24 Child Street, Augusta, Maine

Advisory Group Members and the public were offered the option to participate remotely.

Objective: To review and discuss the preliminary range of OSW Port alternatives, the criteria to be used in their evaluation, and identify features for consideration.

MEETING TAKEAWAYS

Requirements for the Consideration of Alternatives and Their Analysis

1. The Purpose and Need statements are the foundation for a proposed action (a project) and drives the selection of reasonable alternatives and their analysis. The Advisory Group suggested the State to consider revisions to the draft Purpose statement: 1) to specify floating offshore wind; 2) to replace commercialization with development; and 3) to specify the offshore wind industry as commercial scale.
2. The Advisory Group reviewed the draft Need statement and offered limited comments. The Need statement will be developed into a discussion for a future point in time to understand the consequences of taking no action and to help understand the impacts, positive and negative, of the action alternatives.
3. Alternatives must be reasonable in range and number, including a no-build/no-action alternative, and must be developed generally to an equal level of detail. The level of investigation to determine the viability and practicality of alternatives may vary.

Sears Island

4. Rolf Olsen described the historical use and ownership of Sears Island, the island's natural resources, and its current use for recreation and education.

Port Alternatives

5. Matt Burns reviewed the minimum OSW port criteria and characterized the evolution of the OSW industry since the 2021 Moffit & Nichol Feasibility Study. The MaineDOT is now focused on a commercial-scale OSW port, not two-phased, research-scale then commercial-scale port. The ability to expand the port facility is an important consideration but not necessarily a port requirement. The demand for an OSW port has not been quantified.
6. MaineDOT has identified five "build" or action alternatives, each with a conceptual layout. All concepts are compatible with a commercial-scale OSW port. A no-build/no-action alternative will be fully developed at a later point.
 - a. Mack Point East – dismissed for its inability to meet minimum OSW port requirements
 - b. Mack Point South – 100 acres
 - c. Sears Island – 100 acres
 - d. Mack Point/Sears Island – 110 acres



- e. Eastport – 100 acres
- 7. Captain David Gelinus described the predominant seasonal wind directions as important considerations in the port alternatives due to the “fetch”, the distance the wind blows over open water, generating waves. Pilots have concerns for moving large vessels in and out of the bay due to the orientation of the vessels’ berth perpendicular to the prevailing winds.
- 8. Matt Canon suggested that Portland, South Portland, and Bath be considered as locations for the port as they may be reasonable.
- 9. The Advisory Group began to advise the State on the alternatives, based on these questions:
 - o What else should the State know about these alternatives at this time?
 - o How could each alternative be modified to function or operate better, to achieve lower construction costs, and to minimize impacts to environment?
 - o In addition to these alternatives, what other alternatives (locations) satisfy the purpose and may be reasonable and worthy of consideration?

Evaluation Criteria for Alternatives

- 10. The Alternatives Evaluation Matrix is a screening tool for alternatives to highlight distinct differences between the alternatives and guide further investigation and evaluation and, ultimately, to support the selection of the least environmentally damaging, practicable alternative that meets the purpose and need.
- 11. The Alternatives Evaluation Matrix includes ability to satisfy or further the purpose and need statements and the minimum OSW port requirements among its criteria.
- 12. The Advisory Group was asked to consider the evaluation criteria and advise the State if additional criteria should be considered prior to further developing the reasonable alternatives and evaluating them.

Features

- 13. Features are the data to be quantified or qualitatively documented to respond to the evaluation criteria and populate the matrix.
- 14. The Advisory Group was asked to advise the State on additional features data the State look for and from whom, for each alternative.

Wrap-up and Closing

- 15. Members were asked to send any suggestions for additional alternatives that may be reasonable, evaluation criteria, and features information, even if decades old, to Kay Rand.
- 16. MaineDOT will send a Doodle poll to refine availability and select a date for site visits to Mack Point, Sears Island, and Eastport.
- 17. The date for the next advisory group meeting needs to be determined and it is hopeful it will occur before the end of the year.



ATTENDANCE

ADVISORY GROUP MEMBERS

Beth Ahearn, Maine Conservation Voters, Co-Chair
 James Gillway, Town of Searsport, Co-Chair
 Matt Cannon, Sierra Club Maine
 Joshua Conover, Islesboro Marine Enterprises (virtual)
 Habib Dagher, Ph.D., P.E., University of Maine College of Engineering
 Dennis Damon, Maine Port Authority
 Eliza Donoghue, Maine Audubon (absent)
 Francis Eanes, Maine Labor Climate Council
 David Gelinis, Capt., Penobscot Bay & River Pilots Association
 James Guerrette, Citizen, towns of Searsport (absent)
 Jessie Gunther, Retired Judge, Public At-Large Member
 Ben Lucas, Maine Chamber of Commerce
 Sean Mahoney, Conservation Law Foundation
 Matt Marks, Associated General Contractors of Maine
 Paul Mercer, Consultant to Governor’s Office
 Steve Miller, Islesboro Islands Trust (virtual)
 Rolf Olsen, Friends of Sears Island
 Mac Smith, Towns of Stockton Springs (absent)
 Jim Therriault, Sprague Energy

MAINEDOT PERSONNEL & CONSULTANTS

Bruce Van Note, MaineDOT
 Matt Burns, Maine Port Authority
 Nate Benoit, MaineDOT
 Nate Moulton, MaineDOT
 Michael Cole, MaineDOT
 Kristen Chamberlain, MaineDOT (virtual)
 Chris Mayo, MaineDOT
 Kim King, MaineDOT

Kay Rand, Consultant
 Bill Plumpton, Gannett Fleming, Inc.
 Adam Archual, Gannett Fleming, Inc.
 Michelle Brummer, Gannett Fleming, Inc. (virtual)
 Julia Roblyer, Gannett Fleming, Inc. (virtual)

PUBLIC, IN-PERSON

Kendra C, TRT media

PUBLIC, VIRTUAL

Becky Bartovics
 Greg Biddinger
 Lauren Bruce
 Celeste Carey
 Celina Cunningham
 Edward Cotter
 Sabrina DeTurk
 Rep. Jan Dodge
 Amy Eshoo
 James Gilbert
 Donna Gold
 Kevin Jerram
 Daniel Kennedy
 Marjorie Knuuti
 Meghan Leahy
 Jonathan Mann
 Genevieve McDonald, New England Aqua Ventus (NEAV)
 Lorelei McKinnon
 Ashley Megquier
 Meredith Mendelson
 David Perkins
 John Perry
 Grant Provost
 Gwyneth Roberts
 Jeff Romano, Maine Heritage Coast Trust



Beverly Roxby
Joan Saxe, Sierra Club Maine
Zach Schmesser
Laurie Schweikert
Jack Shapiro
Laura Singer

Jake Ward, Vice President for Innovation and
Economic Development, University of Maine
Stephanie Watson
Susan White
Dave Wilby
Erin Wilkinson
John Wyatt

MEETING NOTES

1. WELCOME AND OPENING REMARKS

- Bill Plumpton of Gannett Fleming, Inc., welcomed in-person and virtual attendees to the meeting.
- Bill reviewed the Port Advisory Group's role: to provide advice to the State of Maine. This role will become interactive today.
- In addition to providing advice:
 - The advisory group operates like a focus group with information shared and advice given.
 - Relay information to your groups, organizations, and associations to help make sure correct information is being used and discussed; work to elevate and inform the conversations.
 - Help to strengthen public understanding of the study and planning process and the regulatory framework for project development and decision-making.
 - Share the State's progress with others.
- While we should expect disagreement on some points and differences of opinion; also expect that everyone will have an equal opportunity to express their thoughts and opinions and advice.
- It takes time to digest information and to provide feedback, questions, and advice. Kay Rand is your single point of contact; she shares your input with the team.
- The State continues to keep a running list of questions. After today, the State can begin to start to answer questions, but it is recognized many can't be answered until much later in the planning and design process. All questions will be answered at some point.
- Express all thoughts and ideas about the port—both positive and negative. Clarify your perspective as positive or negative and why or how you view the action or impact the way you do and how a condition could be improved.

2. REQUIREMENTS FOR THE CONSIDERATION OF ALTERNATIVES AND THEIR ANALYSIS

Presented by Bill Plumpton, Gannett Fleming, Inc.

Presentation: Purpose, Need, and Alternatives Requirements 2022-09-29.pptx (7 slides)

- In Meeting 1, the State provided a high-level summary for compliance with the National Environmental Policy Act (NEPA), a planning and decision-making process that integrates compliance with all federal laws.
- One day, the State will prepare or contribute to an Environmental Assessment (EA) or an Environmental Impact Statement (EIS) for the OSW port.



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- Generally, both EAs and EISs follow the same sequential process, considering facts and data to make decisions.
- “Purpose and Need” lay the foundation for a project, including the justification for costs and environmental impacts.
 - Purpose is the desired future state or end product.
 - Need is the problem(s) to be fixed by the project (the action). Need helps to establish the project’s priority (or priorities) and may evolve throughout the process.
 - Purpose and need set the stage for reasonable alternatives.
- Draft Purpose Statement:
 - The purpose of the proposed action is to construct a marshalling port facility in Maine to support the commercialization of the offshore wind industry.
 - Jim Therriault – Should the purpose say “floating” offshore wind port?
 - Jessie Gunther – What is commercialization?
 - Matt Burns – Commercialization is the large-scale deployment of OSW turbines in the Gulf of Maine; up to 1,000 MW capacity.
 - Jessie Gunther – Would there be private investment for profit?
 - Matt Burns – Yes, that would have some component.
 - James Gillway – This port would support OSW turbines beyond the demonstration project, possibly beyond Gulf of Maine.
 - Dennis Damon – Is there any requirement that the port pay for itself and is that part of the purpose?
 - Matt Burns – Determining this will require the development of a business case, which is not necessarily part of the purpose statement.
 - Dennis Damon – The primary goal is to have a port facility.
 - Jessie Gunther suggested the term “development” to replace “commercialization.”
 - Rolf Olsen agreed with “development” in place of “commercialization.” He asked if the purpose is for one port. He understood that some functions may be accommodated at other locations.
 - Matt Burns – This will be an extremely active port facility – marshaling, fabrication, installation/launch. At present, the State is conceptualizing activities at one location.
 - Frances Eanes suggested the purpose might include meeting the State’s renewable energy and economic development goals.
 - Sean Mahoney – This project’s financial future does not fit neatly under NEPA. The purpose statement should focus on and explain the agency’s action. Political and/or financial goals are separate. He agreed that one alternative could be a port with activities at multiple locations. NEPA is not an action-producing process but requires MaineDOT to look at information in making its decision. He agreed that “development” is preferred to “commercialization,” in support of the State’s climate and renewable energy goals.
 - Beth Ahearn – Is there a difference between the two words: development and commercialization?
 - James Gillway – noted the development and future of offshore wind industry. Development is finite and, eventually, the OSW port would be a commercial endeavor.



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- Matt Marks suggested “develop” instead of “construct” and suggested striking commercialization and marshalling: The purpose of the proposed action is to develop a port facility in Maine to support the offshore wind industry.
- Frances Eanes suggested “commercial-scale” in place of “commercialization of the OSW industry.”
- Bill Plumpton – MaineDOT will review these comments and bring the revised purpose statement back to a future meeting.
- Draft Need Statement:
 - The State of Maine does not have a marshalling port facility with sufficient space to support the construction, operation, and maintenance of offshore wind turbines.
 - Bill Plumpton – Some comments on the purpose statement will carry over to the draft need statement.
 - Jim Therriault – noted multiple locations might apply. Marshalling might stay here.
 - Habib Dagher – The need for action is big. The East Coast doesn’t have this kind of port. Neither does the West Coast. Exporting floating OSW wind turbine generators (WTGs) will help pay for the facility.
- The Alternatives Analysis is central to proving that impacts to the environment—both natural and human – has been avoided and minimized to the extent possible.
- The analysis requires a reasonable range and number of alternatives—not too few and not too many—and an easy and equal basis for understanding the alternatives and their impacts.
 - Alternatives generally need to be developed to the same level of detail.
 - Alternatives must be reasonable. Reasonable alternatives are those that are 1) practical or feasible from the technical and economic standpoint, and 2) must use common sense, rather than simply desirable. If they don’t fix the problems, they are not reasonable. If an agency or project sponsor isn’t willing to advance an alternative, it generally isn’t reasonable.
 - The level of investigation to determine the viability and practicality of alternatives may vary.
 - Sean Mahoney – Alternatives need to be real and meaningful, not pro forma.
- In the documentation of the alternatives analysis, the State needs to not only identify the alternatives considered but describe how they were identified and how they were developed and the reasons why some were eliminated from consideration. The reason(s) for eliminating some alternatives needs to be based on sound judgement and cannot be arbitrary.
 - Steve Miller – It’s important to acknowledge that the port project would occur in two-phases (per the Moffit & Nichol study) and the alternatives analysis would need to consider both phases.

3. SEARS ISLAND: A VIRTUAL TOUR

Presented by Rolf Olsen, Friends of Sears Island

Presentation: Sears Island: A Virtual Tour.pptx or .pdf (31 slides; very large file); includes slide with a hyperlink to video tour available at <https://www.youtube.com/watch?v=VwKrrmJzFr0>.

- Rolf Olsen introduced himself as a seven-year resident of Searsport and the Vice President of the Friends of Sears Island (FOSI) organization. He first visited in 1973. Living in Bangor, he heard of the



proposed nuclear plant and plans and proposals for the island. Rolf said he's neither a conservation activist nor trained in the natural sciences.

- Sears Island is open to the public at no charge.
- FOSI operates on a \$35,000/year budget, primarily for one paid program director, and many volunteers.
- Rolf asked if the Advisory Group members have all been to Sears Island, and suggested they visit.
- He characterized his presentation as descriptive.

History of Sears Island

- Historically, the Wassumkeag nation lived in the area. Wassumkeag means bright sand beach. A Penobscot language keeper suggests a different spelling: Wahsamkik. The island has been used as a navigation beacon since at least 3,400 years ago.
- In 1730, the island and surroundings were granted to Brigadier General Samuel Waldo and renamed Brigadier's Island. After Waldo's death, his daughter Lucy married Henry Knox, who turned Sears Island into grazing lands for livestock and built a farmhouse.
- In 1804, Knox transferred ownership of the island to a creditor.
- In 1813, one of the shareholders, David Sears, bought out his partners. Ownership of the island remained in the Sears family for four generations. Farming continued on Sears Island for over a century and the Sears family built a summer home at the southern end in 1853; the house burned 40 years later.
- In 1905, the Bangor Investment Company bought Sears Island, intending to build a resort. Vacant buildings were demolished but the resort was not built. People used the island for public recreation, calling it Penobscot Park. It was also used for smuggling liquor during Prohibition.
- Since the 1970s, there have been various attempts to industrialize Sears Island.

Conditions on Sears Island Today

- Today, there is a conservation area and a transportation parcel.
- Trails exist throughout the island. The Eastern Ledges Trail is a loop with good views and is one of the most popular trails.
- The island is a thriving terrestrial and marine habitat. It is home to 225 species of birds and 47% of all bird species recorded in Maine. It is an important flyway for birds and a waystation for monarch butterflies.
- Eelgrass beds are present, especially along the western shores. Eelgrass provides important habitat for aquatic species and is difficult to restore once disturbed/destroyed.
- The Maritime spruce-fir and mature hardwood woodlands provide habitat for birds, mammals, invertebrates, and understory plants. The island has several large legacy trees.
- Vernal pools are nurseries for six of Maine's frog species, three salamander species, and many invertebrates.
- The island functions as a learning lab for natural ecology, biodiversity, and conservation for all ages. Public schools bring students to this outdoor classroom.
- Sears Island is an engine for the tourism economy. Based on information collected over the last three years from traffic counters placed by MaineDOT on the causeway, FOSI estimates nearly 34,000 visitors in the summer of 2021, almost a 20% increase from the summer of 2019.



- Hunting is permitted.
- Winter activities include snowshoeing and cross-country skiing on the trails.

If a port were to be developed on Sears Island,...

- What might be lost? What might the impacts be?
 - Tranquility.
 - Visitor's experience may be diminished.
 - More traffic over causeway, possibly including heavy trucks and rail.
 - Additional utility infrastructure could be required.
- Can a conservation area successfully coexist with a busy manufacturing port? Based on sites mentioned in earlier Advisory Group meetings:
 - Point Pleasant Park, Halifax, 180-acre historical and recreational site next to a port. Halifax, a large metro area with 400,000 people, is very different than Searsport.
 - The Belfast Harbor Walk is not a valid comparison to Sears Island.
 - The Fort Knox Historic Site and Penobscot Narrows Observatory example is different in as the transportation infrastructure includes a bridge, not a port, and the observation tower has attracted more visitors to the park.

Video Tour

- A Visit to Sears Island, a 7.5 minute virtual/video tour, was shown and is available at <https://www.youtube.com/watch?v=VwKrrmJzFr0>.

Discussion

- Sean Mahoney said he visited Sears Island this Spring.
- Beth Ahearn noted that the map depicting the eelgrass beds in the presentation is dated 2007 and asked whether Rolf knew whether there has been damage from green crabs.
 - Rolf presumed damage but does not know the extent of it.
- Steve Miller noted that he visited Sears Island in January to view a plastics spill and was surprised by how many people were walking that day. Sears Island is a year-round attraction.
- Rolf noted the paved road is popular with older people. It's not a handicap access trail, but it accommodates wheelchairs and people with mobility issues. Friends of Sears Island has started plowing part of the road in winter for accessibility.
- Beth Ahearn asked whether the jetty is in the transportation section.
 - Rolf said that the jetty is in the transportation parcel.

4. ALTERNATIVE LOCATIONS WITH CONCEPTUAL DESIGNS FOR THE OFFSHORE WIND PORT

Presented by Matt Burns, Executive Director, Maine Port Authority

Presentation: OSWPAG Pres 3 9.29.22.pptx (Maine Offshore Wind Port Alternatives Review; 16 slides)

- Prior to Matt Burns' presentation, Bill Plumpton asked the Advisory Group to consider the presentation in the context of the upcoming discussion questions:
 - What else should the State know about these alternatives at this time?



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- How could each alternative be modified to function/operate better, to achieve lower construction costs, to minimize impacts to environment?
- In addition to these alternatives, what other alternative locations satisfy the purpose and may be reasonable and worthy of consideration?
- Quick Review of OSW port requirements
 - A floating OSW port requires very specific criteria not common in ports today in the US or throughout the world – very high loading capacity and flat areas with sufficient upland area.
 - Floating – extraordinarily large, heavy components.
 - Distinctions between fixed and floating OSW ports are emerging.
 - Foundations are fabricated at the port.
- The most important OSW Port characteristics
 - Deep water access – 35 feet.
 - No overhead restrictions – known as air draft.
 - Cargo staging area for turbines, nacelles, hubs, etc. – flat areas with sufficient upland area.
 - Heavy loading capacity 5,000-6,000 psf (pounds per square foot); the higher the capacity, the better.
 - Dedicated wharf frontage – 1,500 feet minimum.
- OSW Wind Turbine Generator (WTG) technology and growth
 - During 2021 Moffit & Nichol Feasibility Study, 12-15 MW WTG was the industry target.
 - Since that time, the industry standard or target has grown to 20 MW WTG.
 - James Gillway asked for clarity whether these capacities are for fixed bottom or floating WTGs.
 - Habib Dagher noted these evolving capacities apply to both types of WTGs.
- The Moffit & Nichol Feasibility Study looked at four sites:
 - The Sprague Put Parcel does not meet minimum requirements: <1,500ft water frontage; no vessel access; and acreage (only 29 acres). Additionally, it would require significant dredging required at a cost of \$100M (plus future costs) and may cause rail line interference. It has been dismissed.
 - The GAC Chemical Site does not meet minimum requirements: <1,500ft water frontage and no vessel access via the navigation channel. Additionally, significant dredging would be required and there are unknown materials in the landfill, resulting in poor geotechnical characteristics. It has also been dismissed.
 - Mack Point Terminal and Sears Island remain under study.
- What has changed since the 2021 Moffit & Nichol study?
 - Maine’s progress on the OSW Roadmap.
 - BOEM announced the first step in commercial leasing in the Gulf of Maine; first leases are expected in 2024.
 - OSW developers are scaling up.
 - Design concepts for turbines have higher power generation capacities, 20 MW, and are larger, resulting in a bigger footprint of activity requiring more acreage, heavier loading, and more activity for foundation assembly.
 - OSW technology—mooring technology, components, and other aspects—continue to change. Adjustments must be made to keep relevant to this evolving industry.



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- Matt Burns introduced four action alternatives, each with a conceptual layout. He noted a fifth alternative – Mack Point East – was briefing considered and dismissed.
 - Mack Point – 100 acres
 - Sears Island – 100 acres
 - Mack Point/Sears Island – 110 acres
 - Eastport – 100 acres
- Mack Point East Alternative
 - Has been dismissed due to 1) potential interference with the existing Canadian Pacific Railroad, 2) significant dredging required (2.1 M cubic yards (CY) for access to navigation channels), and 3) time and cost.
 - Habib Dagher noted dredging would be required along the pier.
 - There is a separate development interest in this site. An announcement may be made soon.
 - James Gillway asked whether the current lease holder (Irving) is in agreement with the development proposal on this portion of Mack Point.
 - Matt Burns noted that Irving has not reviewed, or accepted, this option.
- Mack Point South Alternative
 - Conceptual Layout: 5-acre quay and 30-acre heavy lift area; 65-acre uplands; would require dredging (1 million cubic yards).
 - Sean Mahoney asked if the heavy lift area (35 acres) consists of fill material.
 - Matt Burns indicated that the heavy lift area is proposed as fill; the quantity has not been determined.
 - Matt Burns noted the State’s current understanding is the Research Array (MeRA) will require 100 acres based on the foundations to be constructed. This is a departure from initial understanding (smaller area required) as documented in the 2021 Moffit & Nichol Feasibility Study.
- Sears Island Alternative
 - Conceptual Layout: 5-acre quay and 20-acre heavy lift area; 75-acre uplands; very similar to Mack Point South Alternative
 - No dredging required
 - Significant ledge cut and fill required
 - Matt Burns noted that a barge and bulkhead combination or ramp could be used to launch foundations into water
- Mack Point/Sears Island Hybrid Alternative
 - Mack Point – 55 acres for foundation manufacturing and launching
 - Sears Island – 55 acres for marshalling and WTG installation
 - Dredging required for access to Mack Point (710,000 cubic yard); no dredging at Sears Island
- Eastport Alternative
 - Conceptual Layout: 5-acre quay and 5-acre heavy lift area; 90-acre uplands
 - Deep water along quay; little to no dredging; bathometric study will be required to confirm
 - Significant elevation at terminal would have to be addressed
 - Significant tide range (up to 20 feet) presents a challenge
 - Displacement of the existing use(s) and demolition of existing pier
 - Existing fish pen to be relocated



- Bill Plumpton noted that the Alternatives Evaluation Matrix includes these minimum design criteria. The matrix will help guide the Advisory Group in sharing information and giving advice about the alternatives. MaineDOT will populate the matrix. All concepts are compatible with a commercial-scale OSW port.
- Matt added that the demand for an OSW port has not been quantified. There are many unknowns about commercial OSW in terms of market demand and technology.
- The ability to expand the port facility is an important consideration but not necessarily a requirement. At some point, a second marshalling facility might be required. It may be better to be able to expand existing site than to develop a new second port. While not a critical consideration at present, it was noted developers care about future capacity.
- Rolf Olsen noted that the 100-acre sites are significantly smaller than the Demark port (400 acres) presented at the July AG Meeting #2.
 - Matt Burns noted that the port in Esbjerg, Norway is an established port facility with multiple users. Based on the State's current understanding, 100 acres is adequate.
- Jessie Gunther noted that there was no discussion of the cost or extent of transportation improvements, citing the Sears Island causeway would become a thoroughfare with the alternatives on Sears Island.
 - Matt Burns said that the State does not consider rail access to be critical to the port operations and that the water would serve as the main access for materials.
- Dennis Damon noted the need for a significant workforce and asked whether the alternatives account for parking.
 - Matt Burns indicated that the conceptual layouts would accommodate a parking area and small office structure even though that level of detail is not shown in these concepts.
- Habib Dagher noted that that the Biden administration recently announced a [Floating Offshore Wind Shot](#), part of Department of Energy's (DOE's) [Energy Earthshots™ initiative](#). It brings together various US departments, namely the Departments of Energy (DOE), Interior (DOI), Commerce, and Transportation. The goal is to reach 15 GW by 2035. The National Renewable Energy Laboratory is leading the collaborative effort to develop a [West Coast Ports Strategy Study](#) to look at how multiple ports can work together but only on the West Coast.

A PILOT'S PERSPECTIVE ON PORT ALTERNATIVES IN THE PENOBSCOT BAY

Presented by Captain David Gelinis

Presentation: Maine Floating Offshore Wind Advisory Group September 29 2022 (6 slides)

- Sears Island was formerly owned by the Bangor Investment Corporation, which also owned the Bangor and Aroostook Railroad.
- MaineDOT pursued ownership of Sears Island, with bipartisan support from the Legislature for its stated goal of using the island to expand Maine's commercial maritime activity in the Port of Searsport. Funding to acquire and build infrastructure on Sears Island by MaineDOT came in several rounds: Maine voters passed bonds in 1981 and 1983 that totaled \$17.5 million dedicated to port development; the Legislature allocated money from the MaineDOT budget in 1985 for the "Sears Island Cargo Port Project"; the Legislature transferred \$2 million to the MaineDOT to be applied to the purchase of Sears Island, which was ultimately purchased for \$4.5 million (Catherine Schmitt, 2006, [link](#)).



- Referencing a map of Penobscot Bay, David explained the predominant seasonal wind directions and are important considerations because these contribute to the “fetch”, the distance the wind blows over open water and generates waves (the larger red arrow shows the fetch from the south in spring/summer and the smaller red arrow shows the fetch for fall/winter). Orange lines show the approximate Mack Point and Sears Island alternative locations based on the 2021 Moffit & Nichol Feasibility Study.
- Pilots have concerns moving large vessels in and out of the Mack Point concept due to the orientation of the vessels’ berth perpendicular to the prevailing winds. Ships are difficult to maneuver with broadside winds. At times, it is impossible to undock from Mack Point because the wind prevents the ship from turning.
- From a pilot’s perspective, based on the arrangement of the berths, it would be easier to maneuver a ship at the Sears Island alternative because the ship would be oriented north-south, aligning the berth with the stronger spring/summer prevailing winds.
- Beth Ahearn asked David Gelinas if he was raising a safety concern regarding maneuverability in Searsport.
 - David Gelinas replied that safety is part of this discussion as piloting is inherently high-risk. The design should minimize risk and improve safety.
 - David Gelinas noted that a 20-knot breeze from the south for six hours will generate four-foot waves in the Mack Point/Sears Island vicinity. Another consideration is wave energy is reflected as it collides with fixed structures, like the quay in the Mack Point concept. He further explained:
 - Instructive interference occurs when reflected wave energy meets the incoming waves and the peaks coincide, waves double in height.
 - The conceptual 1,500 linear-foot quay in the Mack Point concept is almost perpendicular to the prevailing wind/fetch.
 - This creates extremely choppy and rough seas which are particularly difficult for smaller vessels, like tugboats, and may pose dangers to maneuvering WTGs.
 - The prevailing wind/fetch from the northwest in the fall/winter generates 1.3-foot waves that would roll along the quay in the Mack Point concept.
- David Gelinas noted Searsport is the eastern terminus of the nationally connected Class I Canadian Pacific Railway (CP).
 - CP has focused import/export growth on St. John in New Brunswick. Record volumes at the Vanceboro border crossings with rail cargo destined for inland US (e.g., Detroit, Chicago, and the Midwest) are pinching the border crossings’ resources. CP heralds Searsport as part of its “East Coast Advantage.”
 - Over the past several years, public and private investment has improved Maine’s rail system, including significant investment of \$37 million to complete the Maine Regional Railway Project. Among the elements of this large project that directly affect Mack Point:
 - Speed on rail line increased 10-25 mph
 - Mack Point received seven new turnouts and 15,000 ft new rail
 - CP owns about 45 acres at Mack Point and may not be amenable to reconfiguring its rail line.
 - Jim Therriault remarked that the current development interest in the Mack Point East Alternative site (mentioned above) would not interfere with the rail purpose or rail yard.



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- Beth Ahearn asked for clarity that no other town has the kind of rail infrastructure described by David directly to the port; this is not available at Eastport.
 - David Gelinas noted that a comparable rail connection is not available at Eastport.
- David Gelinas remarked that an alternative option that dismantles existing assets at Mack Point, namely oil tanks, may be premature or short-sighted as most Mainers rely on fuel oil to heat homes, noting that the transition from fossil fuel to renewable energy will take decades and not years.
- He questioned how floating OSW operations could be handled alongside the present, ongoing operations at Mack Point, noting the July 7, 2022, presentation by Matt Burns focused on purpose-built port examples associated with OSW development. Further:
 - How attractive would a mixed operations arrangement be to an OSW developer?
 - What would the lease/ownership relationship be amongst multiple owners (e.g., would the State own the pier and a private owner/operator own the uplands)?
 - David questioned whether the cost associated with the Mack Point concept in the 2021 Moffit & Nichol Feasibility Study is complete and accurate, noting that the cost does not account for the upland purchase and/or lease costs.
 - In part due to the multiple ownership, there are additional complications associated with the Mack Point conceptual alternative compared to the Sears Island conceptual alternative, in David's opinion.
- David Gelinas presented information on the Federal navigation channel and dredging.
 - The federal navigation channel has not been maintained or deepened since it was constructed in 1964.
 - In 2013, the US Army Corps of Engineers and MaineDOT proposed a Federal Navigation Channel Improvement Project to deepen the Searsport Harbor from 35 to 40 feet, increase the channel width, and provide a new turning basin. This would have resulted in approximately 892,000 CY of dredged materials.
 - Environmental concerns were raised at the time from several interest groups, particularly with regards to sedimentation and legacy mercury contaminants from the HoltraChem site. He referenced the following sources:
 - "Thirty legislators call for Searsport dredge study", *Penobscot Bay Pilot*, November 3, 2013, www.penbaypilot.com/article/thirty-legislators-call-searsport-dredge-study/23606
 - "Searsport Dredging Bulletin Points", Sierra Club, May 26, 2015, www.sierraclub.org/sites/www.sierraclub.org/files/sce/maine-chapter/graphics/Dredging%20Two-Page%205-26-2015.pdf
 - "Proposed Dredging of Searsport Harbor", Islesboro Island Trust, No date, islesboroislandtrust.org/wp-content/uploads/2013/10/IIT_dredging_fact_sheet.pdf
 - Letter from Kim Ervin Tucker, Attorney at Law, to Patricia Aho, Commissioner, Maine Dept. of Environmental Protection, June 1, 2015, www.sierraclub.org/sites/www.sierraclub.org/files/sce/maine-chapter/graphics/Dredging%206-1-2015%20Letter%20to%20DEP%20re%20BE%20jurisdiction.pdf
 - Letter from State Legislators to Maine Dept. of Environmental Protection and Dept. of Marine Resources, June 18, 2015,



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www.sierraclub.org/sites/www.sierraclub.org/files/sce-authors/u445/June%2018%2C%202015%20Legislative%20letter.pdf

- [“Searsport Dredging Seen as Fishery Threat”, *Fishermen’s Voice*, July 2015, www.fishermensvoice.com/archives/201507Index.html](http://www.fishermensvoice.com/archives/201507Index.html)
- David noted that the proposed dredge associated with the 2021 Moffit & Nichol Feasibility Study Mack Point concept is approximately the same quantity as the formerly proposed Federal Navigation Channel Improvement Project and suggested the same issues and concerns relative to dredging should be anticipated by the State.
- Bruce Van Note acknowledged controversy regarding dredging, noting the State has a differing opinion on the level of disruption and potential impact(s).

DISCUSSION AND ADVICE ON THESE AND OTHER ALTERNATIVE LOCATIONS

- Beth Ahearn noted that 13 sitting legislators signed the June 18, 2015, letter to the Maine Department of Environmental Protection and Department of Marine Resources.
- Rolf Olsen asked for clarity on the use of small vessels around the port. He assumed other ports would handle OSW WTG maintenance activities and this port would primarily accommodate larger vessels.
 - Matt Burns replied there would be small vessel activity at this port, like tugs and barges.
- Rolf Olsen noted years ago he asked, what would trigger expansion from Mack Point to Sears Island? The response given was when Mack Point was at capacity. The current capacity at Mack Point is unknown.
- Jessie Gunther asked what the current level of Penobscot Bay traffic is and what level of increase could be attributable to this project?
 - Matt Burns noted that delivery vessels would not be daily. The more lay down area that is available, the less frequently components would be delivered. It would not constrain access to the port. No operational difference is anticipated, though more pilots may be needed.
 - David Gelinis reported on current vessel activity. It varies from 100 vessels to 140 vessels per year. Not all vessels go to Mack Point (the west bay). 15-20 vessels go elsewhere. In the west bay, there are 120-125 vessels per year (peak at 160 vessels). As of September 28, 2022, there had been 16 or 17 this month.
 - Matt Burns added that land-based/terrestrial wind project vessels are expected to decline, and OSW vessels are expected to increase. The result would be an offset.
- Steve Miller made three comments.
 - Fetch is an important consideration in the alternatives analysis.
 - The acquisition of Sears Island was motivated by proposed cargo port. Angus King said he favored acquiring the island for a port or park. The \$4 million in acquisition funds were a combination of \$2 million from general funds and \$2 million from federal transportation enhancements funds, eligible for use in trail development.
 - The objection to dredging was due in part to the proposed disposal area. Steve commended the DOT for its recent maintenance dredge disposal approach (i.e., for beneficial use).
- Jim Therriault commented on the Mack Point South Alternative. Constructive interference may be minimized by rebuilding on the existing dock. Vessel traffic may not be significantly higher than today. By rebuilding the dock and using specialty trailers, the safety concern could be avoided.
 - Matt Burns acknowledged the suggestion as good feedback.



- Matt Marks noted there is still a requirement for a lay down area, even if the heavy lift wharf were a rebuild of the existing dock/delivery.
 - Jim Therriault commented that the dock currently operates at 25% of capacity.
- Sean Mahoney asked if the heavy lift would displace the current activity.
 - Jim Therriault said yes, it would at commercial scale.
 - Sean Mahoney followed by asking if the turning area would still require dredging.
 - Matt Burns said that would need to be considered.
- Josh Conover agreed with Steve Miller on repurposing dredge materials and asked if the pier could be oriented north-south to avoid the fetch.
 - Matt Burns replied that the fill area is for the lay down area, and he suspected the rock ledge is a limitation.
- Matt Cannon said he had some thoughts on other alternative locations. For the alternatives presented by today:
 - Matt suggested the preparation of renderings and other visualization materials to further understanding of the conceptual alternatives.
 - Matt Burns said that the facility would include a variety of cranes—the largest at the quay with smaller cranes in the yard. MaineDOT is working on a 3D rendering; he agreed it's important to understanding the design concept.
- James Gillway noted these OSW components are larger than land-based components and moving them from the existing dock to the upland storage area would require relocation of existing activity.
 - Jim Therriault noted that there is excess capacity at Mack Point, specifically the Department of Defense fuel tanks. Each fuel tank sites on a 5-acre pad site. 1-2 tanks could be removed without impacting current fuel storage needs.
 - James Gillway said the fuel tanks are not taxable. Replacing fuel tank sites with taxable uses would be a positive impact to Searsport's tax base.
- Matt Marks asked about the launch process to put the WTGs in the water and tow them to sea.
 - Jim Therriault said there are several options, including a semisubmersible barge or a ramp.
 - Matt Burns said that launch methods (and the dimensions required) are under discussion.
 - Matt Marks replied that more vessel traffic will likely result.

Discussion of Mack Point South Alternative

- Matt Burns noted that Joshua Conover's comment on changing quay orientation is not feasible due to the water depth and would increase the need for fill.
- Dennis Damon asked if disposing dredging spoils into the fill area is feasible. If so, is the heavy lift factor a problem?
 - Matt Burns said that fill is not likely to be suitable for construction and compaction. Fill could possibly be amended (e.g., with Portland cement).
- Dennis Damon asked if splash over from waves and the rebound of reflective waves would be a safety or other concern – specifically regarding fill areas – during storm events.
 - Matt Burns indicated that splash over would be possible. He noted it would be considered as an operational factor and as a cumulative impact of waves over time.
 - Nate Benoit – The top layer of dredge material may be poor, however, glacial material, if below, could be a viable fill material.



- Matt Burns noted that MaineDOT hopes to avoid blasting.
- David Gelinas asked about a fendering system at an elevation of 15 feet above high water.
 - Matt Burns noted this is correct. The size and weight assumptions could influence the elevation.
- Matt Canon asked how the DOT would obtain the imagery to assess dredging costs.
 - Matt Burns said the DOT would contract this survey.
- Sean Mahoney referenced an earlier mention of a concrete batch plant or steel plant. Building a steel plant would be a big component. Are these plants contained within the “uplands” shown in blue?
 - Matt Burns said these plants would be within the uplands.
 - Sean asked if the design/construction of a plant would be dependent on a private party.
 - Matt Burns said the decision to build a plant for OSW foundations would be the OSW developer’s decision. Such a plan would not be for port development.
Pre-cast metal is more likely to come to the port by vessel with WTG assembly at the port.
- James Gillway asked if the footprint of the Mack Point South Alternative included a boiler, noting the potential for the relocation of tanks, potential complications of asphalt, and steam lines throughout the site.
 - Jim Therriault noted that there are 100 acres of industrial land at the nearby GAC site, which could be connected.
- Steve Miller noted that the Islesboro Islands Trust has questions about the environmental impacts of each alternative. That step hasn’t been addressed yet and is needed for each site and site configuration.
 - Bill Plumpton acknowledged that Steve is correct, and these analyses are still to be performed.
- Beth Ahearn asked if there was room to expand at the Mack Point South Alternative.
 - Matt Burns said expansion is a matter of ownership and acquisition effort. Both would apply to all sites and will need to be considered.
- Sean Mahoney asked about the cost differential between the original concept in the Moffit & Nichol Feasibility Study and this current conceptual layout.
 - Matt Burns acknowledged he expects a higher cost for a bigger footprint, but a cost estimate has not been prepared.

Discussion of Sears Island Alternative

- Rolf Olsen asked about the economic value of Sears Island in its current state, what might be lost by port development, and the value of that loss?
- David Gelinas asked about the dimensions of a representative delivery vessel.
 - Matt Burns said a 700 ft vessel.
 - David noted that the M&N phased plan showed riprap on the north and south faces of the berth. David had suggested a sheet pile bulkhead on the north face because the north side would be a good face for shuttle barge because of the depth.
- Matt Canon said that the square shape of an upland fill area could increase the impact of waves.
 - Matt Burns said that the south side would be riprapped to better absorb wave impact.
- Jessie Gunther asked for confirmation that there is no expectation that the road (causeway) will be expanded, since the State expects that most materials will be delivered by vessel.



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- Matt Burns replied that the State expects significant deliveries by water and does not currently envision the need to make improvements to the causeway.
- Nate Moulton noted that the causeway was designed for the road and rail, and he did not believe the State would need to improve the causeway for this port concept.
- Nate Moulton noted that the road on Sears Island would require improvement.
- Rolf Olsen noted that the road on Sears Island is on the transportation parcel.
 - Matt Burns agreed and noted that he would confirm.
- Dennis Damon asked Matt to clarify that for any site, the upland portion (blue area) is required to be flat, and the grade would need to be maintained as it transitions to the uplands infill (green area) in the layout.
 - Matt Burns said there would have to be a significant cut on Sears Island for this alternative to achieve a flat area of up to 1% grade. The same is true for Mack Point South, but the cut would be greater on Sears Island.
- Sean Mahoney said Sears Island has a long history and that the Wassumkeag/Wahsamkik people are not represented on this Advisory Group. However, it is critical that the Tribe be made aware of these plans and the need to protect of cultural artifacts.
- Paul Mercer asked if the excavated material on Sears Island would have a beneficial reuse.
 - Matt Burns said a beneficial reuse was correct
- Rolf Olsen noted that the 2005-2007 planning documents talk about the road going along the western side and the “jetty road” would remain for secondary use. He asked if workforce, traffic, and utility infrastructure will be planned later, if needed.
 - Matt Burns said that to date, the DOT assumes the existing road can be used.
- Beth Ahearn estimated that this alternative occupies about 1/3 of the transportation parcel, leaving about 2/3s undeveloped, at least initially. She asked if the DOT has estimated built out.
 - Matt Burns said this has not been estimated. Co-locating a second marshalling facility seems efficient, but another site might be considered. Generally, OSW developers are looking for more space; it’s desirable but not required to be able to expand.
- David Gelinas said that adequate space and buffer for rail was considered in the Conservation Easement planning. Aggregate delivery by barge would be good and rail should be considered. There is a wet area in the vicinity of this alternative site that was protected within the Conservation Area.

Mack Point and Sears Island Hybrid Alternative

- Jim Therriault suggested the area where tugs tie up could be used for a workforce ferry to avoid workforce traffic on Sears Island. Jim also said the inland storage area could be smaller to start, if parts are stored on Mack Point and transferred to Sears Island, as needed.
- Frances Eanes noted that a ferry service between Mack Point and Sears Island could minimize traffic.
 - Matt Burns agreed, noting that the intent of this hybrid alternative is to have both facilities support one another to lessen impacts of transporting people, components, and raw materials.
 - Sean Mahoney suggested the GAC chemical area could be used for expansion of the lay down area.
 - Matt Burns said If components are marshalled there, that would be done by water.



- David Gelinas – The portion of Sears Island used is farther south, which takes away potential to bring 200- to 300-foot barge between sites. He suggested shifting the Sears Island site to the north to capture the jetty and swallow existing break water.
- Matt Marks said he doesn't like the hybrid alternative. It entails two substantial construction activities. One location would be better.
 - Matt Burns acknowledged that the two sites represent two very different construction projects – one greenfield, one brownfield – in one complex project.
 - Ben Lucas commented that two sites would be more complex, confusing and one site is better.
 - Sean Mahoney said this hybrid alternative won't reduce impacts. Mack Point is a brownfield. There will still be issues with impacts on Sears Island. This hybrid alternative seems to be the worst of both. He restated that a visual depiction of the port is critical.
 - Jim Therriault suggested a "hybrid lite" alternative with Mack Point, the deep-water portion on Sears Island, and shuttle materials and personnel, as needed, as this would preserve the ability to build out into Sears Island in the future.
- Dennis Damon said to give further advice, he would like to have cost information for each alternative.
 - Matt Burns noted that the only cost estimates are in the Moffit & Nichol study. Cost estimates for all alternatives will be developed.
 - Rolf Olsen said that there are money and time costs, both of which are of value.
- James Gillway said he thought the port for the research array required about 60 acres and would later be expanded to 100 acres.
 - Matt Burns said the DOT has learned a lot of over the past 12 months. In the original concept, the State considered a quay surface to launch the foundation and assembly. Now, all concepts are designed to build a bigger footprint to serve a commercial-scale wind project.
 - Frances Eanes asked what the DOT means by expansion.
 - Matt Burns described the Moffit & Nichol Feasibility Study as focused on a two-phase port development: a smaller research project (phase 1), and a larger commercial scale (phase 2). Today, a commercial-scale port and expansion to a second marshaling facility is being considered.
 - Frances Eanes asked if there are collocating efficiencies, such as doubling capacity at one versus two locations.
 - Matt Burns said that there would be savings in collocating facilities.
- Paul Mercer noted that the general population is looking for solutions to climate change. We need to continue to reduce the cost of OSW. He acknowledged the future need to acquire federal and state permits and further review.
 - Sean Mahoney noted there is need to act quickly. BOEM lease bids are coming soon, and companies need to know that we are moving.
- David Gelinas said this hybrid doesn't reduce the need for dredging.

Eastport



- Matt Burns noted that Eastport is the northernmost deep-water port in the US. Eastport serves the paper industry, which has been in decline. The port is looking for new users.
- Regarding the conceptual layout, Matt noted that the heavy lift area doesn't need to extend as far into the water because the water is naturally deeper.
- Frances Eanes asked David Gelinis about safety considerations.
 - Matt Burns noted that David's organization works exclusively in the Penobscot Bay, so he may or may not want to answer. MaineDOT will ask local pilots for their input.
 - David Gelinis noted that Bob Peacock and Jerry Morrison are two harbor pilots for the port of Eastport; they could speak to safety at Eastport.
- Jessie Gunther asked if an OSW port at Eastport would impact Canadian waters.
 - Matt Burns said yes, though he doesn't know the full extent.
 - David Gelinis said there is a working relationship, by treaty or other method.
- Dennis Damon commented that the uplands don't seem to be level/flat and asked what would happen to current port activity if the dry cargo pier were to be demolished.
 - Matt Burns noted that significant cut would be required, and material would be removed, requiring disposal.
 - Dennis asked if current activity and OSW would be compatible.
 - Matt Burns said compatibility has not yet been determined.
- Ben Lucas said that demolition would be costly, and Eastport's geographic location is hard to access. Both need to be considered. He inquired about safety, mentioning an incident in the harbor a few years ago.
 - Matt Burns noted that a breakwater pier in a different location has collapsed and was subsequently rebuilt. He agreed with Ben's points about location and access.
- Sean Mahoney asked about the distance between Searsport and Eastport. He said the arrays are more likely to be in the southern Gulf of Maine to minimize transmission costs.
- Sean asked if Canada has an interest in OSW?
 - Matt Burns is not aware of Canadian interest in OSW.
- Sean Mahoney asked if there had been input from OSW developers, with respect to the port location.
 - Matt Burns reported that has not been much discussion with developers other than about the research array. Developers are generally supportive of these alternatives.
 - Jim Therriault said there's a lot of interest.
 - Matt Canon said he wants to hear about interest from Canada. The Eastport alternative has the least infill.
 - A recent new article was mentioned: [Nova Scotia Plans Canada's First Offshore Wind Auctions](#).
- Rolf Olsen referenced a 9/23/22 article about the Northern Maine Community College in the Bangor News, suggesting an initiative to relocate workforce programs to where the workforce is be needed.
 - Matt Burns noted there is a working group on the workforce topic.

Other Alternative Locations



- Matt Canon noted that Portland and South Portland were mentioned in Moffit & Nichol Feasibility Study. Matt is curious about the future market of oil in Portland area and Bath. He asked if these areas are feasible, and if not, why.
 - Nate Moulton said that bridge width (or pier separation) may be a constraint, as well as the potential for significant dredging.
 - Matt Burns said the State would consider these areas.
 - Sean Mahoney agreed that some areas are quite shallow, and there are existing nearby neighborhoods.
- David Gelinas noted that towing the WTGs (275 feet wide, 750 feet tall) is a big deal. They are towed by three- to five-foot draft, ocean-going, deep draft tugboats. They need clear ingress/egress for towing out and bringing back for refurbishing. This is a big job for towing vessels.
- Josh Conover agreed with the need for a straight route. He asked if the DOT is studying the tow route for each alternative and estimating lobster gear/traps along the route?
 - Matt Burns said this was a good suggestion.
 - David Gelinas said that the Penobscot Deep Draft Route doesn't prohibit lobstermen from placing gear/traps. It is intended to show high-risk areas for lobstermen.
- Ben Lucas asked that the Advisory Group members keep economic benefit top of mind as they advise. Rural parts of the state desperately need jobs and investment.

5. EVALUATION CRITERIA FOR ALTERNATIVES

Presented by Bill Plumpton and Matt Burns

Handout: State of Maine OSWP Alternatives Evaluation Matrix.pdf

PRESENTATION OF EVALUATION CRITERIA

- Bill Plumpton introduced the alternatives evaluation matrix as a screening and communication tool for the evaluation of alternatives.
- The screening criteria are rooted in compliance with NEPA and support selecting the least environmentally damaging, practicable alternative that meets the purpose and need.
 - The Army Corps of Engineers (ACOE) is the agency that issues permits for the discharge of dredged and fill material.
 - US EPA says the ACOE must approve the least environmentally damaging, practicable alternative.
 - Least Environmentally Damaging
 - The one with the least impact to waters, wetlands, water quality, and aquatic life
 - Must be data-driven and data-supported decision.
 - Practicable
 - The alternative must satisfy the purpose
 - The alternative must be capable of being done
 - The alternative's cost must be considered
 - The alternative must be available (have available property)
- The evaluation matrix is two pages of screening criteria with supplemental information on regulations, references, and definitions.
- The screening criteria presently consists of 41 criteria. It will take time to investigate these criteria.



- The evaluation matrix will be populated with quantifiable or qualitative results.
- The matrix is not a substitute for an Environmental Assessment or an Environmental Impact Statement. It is a screening and communication tool to highlight distinct differences between the reasonable alternatives and will guide further investigation.

DISCUSSION AND ADVICE ON THESE AND OTHER EVALUATION CRITERIA

- Dennis Damon noted that Mack Point East is not in the alternative evaluation matrix.
 - Matt Burns noted that Mack Point East was considered and was deemed not reasonable due to dredging and other factors.
- Matt Burns characterized the Practicability Criteria (1-11, numbers from the alternatives evaluation matrix).
 - Purpose & Need (1)
 - Site Requirements, Logistics & Constructability (2-10)
 - Facility activities include floating OSW WTG foundation manufacturing, WTG assembly, and accepting deliveries (laydown areas) and launching completed floating OSW WTGs.
 - Bill Plumpton noted that criteria 1-11, except Impacts to Navigation (7), are expected to be quantitative.
 - Cost (11)
 - Rolf Olsen asked where time-to-complete fits into the evaluation? For example, how long could it take to make a site available, such as at Eastport.
 - Bill Plumpton agreed that time is not reflected here.
 - Steve Miller asked what factors will be included in Cost (11).
 - Bill Plumpton responded that construction, infrastructure and infrastructure improvement, and mitigation costs will be included. Operations and Maintenance costs are being developed separately.
 - Dennis Damon asked if improvement to Route 1 would be included.
 - Bill Plumpton indicated that Route 1 improvements, if necessary, would be included in the cost.
- Bill Plumpton introduced the environmental impact criteria (12-41).
 - Waters of the U.S. (WOTUS), Wetlands, and Waterbodies (12-16)
 - Fisheries (17-18)
 - Wildlife, Plants, & Habitat (19-21)
 - Natural Features (22-23)
 - Cultural Resources (24-26)
 - Property Impacts/ Existing Uses (27-32)
 - Community, Economic, and Social Impacts (33-41)
- Rolf Olsen asked about engagement with the Penobscot tribe.
 - Sean Mahoney noted that regulation dictates that tribes are approached and consulted on a government-to-government basis.
 - Jessie Gunther added that tribes typically do not participate in discussions at this (state) level.



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- Bill Plumpton added that tribes do not consider themselves “stakeholders.” They are sovereign nations.
- Bill Plumpton noted the economic contribution of land uses converted to the OSW port could be quantified in dollars on an annual basis.
- Dennis Damon asked why there are no federal or state guidelines for Seabird Nesting Islands (21).
 - Bill Plumpton noted he would review the seabird nesting islands to determine if more context should be provided.
 - Sean Mahoney noted that he is not aware of any federal or state statute for aquaculture. Aquaculture is a permitted activity, not land ownership. Similarly, there’s not requirement for host community benefit (38).
 - Jessie Gunther commented that a fish pen was noted at Eastport.
 - Bruce Van Note noted that perhaps there is a presumption that impacts on people and economics would be considered and that is why there are no specific legislative references.
- Bill Plumpton noted that Legal or Policy Issues that affect implementation (41) may come up in the process but are not predefined.
- Dennis Damon asked about Proximity to Labor Markets and Affordable Housing (40). Maine could look at Searsport, but Searsport might look at itself differently, or be willing to act to change the current condition.
 - Bill Plumpton said that towns/communities will be contacted for their input on this and possibly other criteria.
 - Paul Mercer noted that opportunity analysis should be included in matrix.
- Jim Therriault asked if MaineDOT populate the matrix, or if the Advisory Group is asked to give input.
 - Bill Plumpton noted that MaineDOT will collect information and share for Advisory Group feedback. If the Advisory Group has advice on additional evaluation criteria to be used, they should suggest it to the State.
- Paul Mercer said that regarding aquaculture, the State is gathering information through the Maine Research Array Project (MeRA) and gathered some data from the demonstration project. We should look at threats and mitigation, as well as opportunities.
- Steve Miller asked how the preferred alternative is reached, and suggested that, in opportunity analysis, opportunities, such as remediation, which could involve funding, be considered.
 - Bill Plumpton said the State will identify the preferred alternative based on data, at a later point in time during the NEPA and permitting processes. This Advisory Group will complete its advice to the State likely before the NEPA process begins. There will be a public involvement component and possibly another advisory group, to the NEPA process. Steve’s suggestion regarding opportunities and funding could be considered in Business & Commercial & Institutional (29) or as a new criterion.
- James Gillway said that Searsport’s catchment for employment includes many communities. Fifty miles is considered a reasonable commuting distance. Searsport is accessible to many.
 - Bill Plumpton agreed that a reasonable catchment area will need to be defined.
 - David Gelinas said that the Bucksport Economic Development Director has a figure for how many worked at the paper mill and how few lived in town.
 - Dennis Damon said that the paper mill was once the largest employer. Now, it’s Jackson Laboratories, which at one point had employees from all 16 counties.



- Rolf Olsen asked where public position (support or resistance) is counted or acknowledged. He anticipates lawsuits and other delays.
 - Bill Plumpton said that public position is not built into the matrix. He will consider how to account for it.
 - Sean Mahoney added that public participation is built into NEPA and state law. This doesn't quantify public opinion, but it provides a means to express a position.
- Matt Canon asked if the DOT needs more examples of impacts (positive and negative) not included in the matrix.
 - Bill Plumpton asked Advisory Group members to send suggestions to Kay Rand.
 - Bruce Van Note added that the DOT looks forward to members suggested additions.

6. FEATURES IDENTIFICATION, AS RELEVANT TO THE OSW PORT ALTERNATIVES

Presented by Bill Plumpton

- To date, the State has not spent too much time identifying natural and social features proximate to the alternatives. Typically, the State would identify features using a variety of methods:
 - Datasets in GIS
 - Literature searches
 - Site visits
 - Talking with federal and state regulatory and resource agencies with jurisdiction
 - Talking to local officials, emergency responders, schools, hospitals, community leaders
 - Talking to industry and landowners and neighbors
- Bill asked, "What features are you aware of at each conceptual alternative that the State may not be?"

Mack Point South Alternative

- Dennis Damon asked about the residence.
 - Jim Therriault reported that the resident has passed, and the lease has expired.
- David Gelinis asked what (commodities, infrastructure, and their value) would be displaced by developing a wind port. Some areas are permitted (e.g., stormwater). What's the cost (time and money) to relocate them? What about schedule impacts relative to hazardous waste/contaminants? How compatible are all activities at Mack Point?
 - Jim Therriault noted that the OSW port would be a dedicated site within Mack Point. Sprague would reconfigure facilities at Mack Point to serve existing and OSW activities.
- James Gillway noted there are wetlands in the upland (blue) area. The property north of the fuel tanks is privately owned and is unusable. The town has a solar farm adjoining (or near) Mack Point to the west.
 - Bill Plumpton asked James to let the team know how the site can be configured to reduce impacts.
- Steve Miller agreed with David's remarks and mentioned that a State Department of Marine Resources representative characterized part of the waters as a marine dead zone possible due to the treatment plant outflow west of Mack Point.

Sears Island Alternative



- Bill Plumpton noted that use of Sears Island as a learning lab was new information that the team might not have learned otherwise.
- James Gillway said there are wet areas. In 2007, during the Sears Island planning, the Town of Stockton was building condominiums that are now well established and could be visible from the port.
- Steve Miller said the amount of study of Sears Island is extensive: wet areas, perennial streams, breeding pools, offshore marine activity.
 - Bill Plumpton asked Steve and all members to send reports and prior studies on features to Kay Rand.
- Dennis Damon noted the eelgrass beds to the west and repeated a question, “What shellfish are there and what shellfish are people harvesting?”
 - Steve Miller indicated that Searsport officials might know.
 - James Gillway said the side facing Mack Point was closed for contamination—mainly from dogs and people. The Shellfish Committee took a proactive approach to require dog pick-up. MaineDOT now provides port-a-potties. The west side has been reopened. There are no commercial fishing licenses, only recreational clamming. A lack of dredging is detrimental to clams. Tug activity lifts silt that buries clams, but dredging would help clams even more.
- Dennis Damon mentioned Long Cove.
 - Steve Miller said there would be impacts to Long Cove.
 - Bill Plumpton clarified that impacts to Long Cove would be indirect and indirect impacts (i.e., physically removed or accruing later in time) would be considered.

Mack Point / Sears Island Hybrid

- Bill Plumpton suggested that the features’ comments for the Mack Point and Sears Island alternatives had been covered.
- Matt Canon raised the potential for scouring behind hard surfaces.

Eastport

- David Gelinas suggested the DOT speak with local pilots.
- Jessie Gunther asked if the Eastport alternative would require consultation with the Passamaquoddy Tribe.
 - Bruce Van Note noted that the reservation is several miles north of Eastport and they may have concerns.

7. WRAP UP AND NEXT STEPS

Presented by Bill Plumpton

- Bill Plumpton thanked the Advisory Group members for their attention and interaction and suggested they take time to digest the material presented and discussed today. He asked that members send any suggestions for additional alternatives that may be reasonable, criteria, or features information, even if decades old, to Kay Rand.
- Bill indicated that there’s a lot to do before the next meeting.
 - Matt Burns noted that MaineDOT will at minimum reach out before the new year with a status report.



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- Bill Plumpton asked if there was interest among members in site visits to Mack Point, Sears Island, and Eastport.
 - He suggested the week of October 24 or October 31 for initial feedback.
 - Jim Therriault said that October 25-27 was a good time for visiting Mack Point.
 - Rolf Olsen said October would be good. He leaves November 8 for a trip.
 - Bill indicated that the DOT would send a Doodle poll to refine availability and select a date.
- Sean Mahoney noted that today's discussion referenced NEPA multiple times, and that much of the same information is required under Natural Resources Protection Act and often would happen first for large projects.
- David Gelinias asked Matt Burns if the Moffit & Nichol Feasibility Study is still valid.
 - Matt Burns replied that the core information is still consistent, and members should concentrate on the alternative drawings shown today.
- Rolf Olsen requested the slide presentations for upcoming public information meetings.
- Jim Therriault asked if the next meeting will be the last of the envisioned four meetings.
 - Bruce Van Note said that in his experience, more questions and ideas will emerge. There may be one additional meeting after the next meeting.
- Steve Miller expressed appreciation for the presentations by Matt Burns, Rolf Olsen, and David Gelinias. He asked if the DOT is looking at primarily at a single phase, commercial-scale development project.
 - Matt Burns indicated that it will be more cost effective to build for commercial scale (versus the two-phase approach envisioned in the Moffit & Nichol Feasibility Study).
 - Bruce Van Note noted that a single phase means more money upfront to build, but if it makes sense to phase port development, the State would do so.

8. PUBLIC COMMENT

- Becky Bartovics made three comments:
 - She asked that environmental impacts consider lighting and its impacts on migratory birds.
 - She asked if there is consideration for blue carbon (sequestration).
 - She heard the Maine Research Array may not be realized as investors want to move too quickly.
- A Searsport resident urged the State to prepare a detailed Environmental Impact Statement.
- John Wyatt, a resident of Winterport, said he visits Sears Island to observe bird migration and any development will be detrimental as towers would pose collision hazards and development would eliminate habitat.

CLOSING AND ADJOURNMENT

The meeting adjourned at 4:15pm.