

**Department of Marine
Resources Expansion Site
Report**

Standard Lease DAM PP2
Mook Sea Farm
321 State Route 129
Walpole, ME 04573

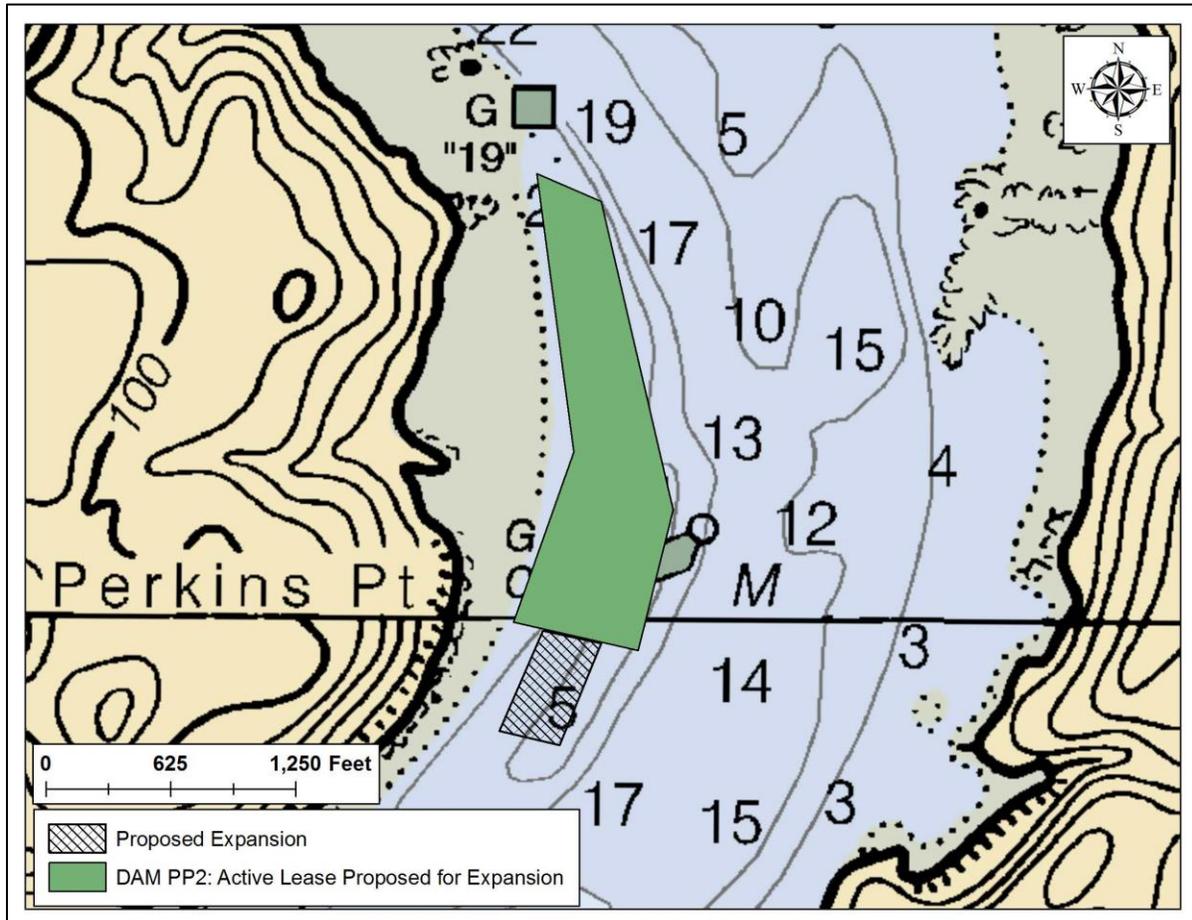


Figure 1: Vicinity map¹

Location: East of Perkins Point, Damariscotta River, Newcastle, Lincoln County, Maine

Acreeage of Existing Lease DAM PP2: 23.76 Acres²

Acreeage of Proposed Expansion: 3.86 Acres

Total Combined Acreeage: 27.62 Acres

Site Review by: Flora Drury and Cheyenne Adams

Report Preparation by: Flora Drury, Cheyenne Adams, and Marcy Nelson,

Report Submitted: December 8, 2020

¹ All figures in this report were created in ArcMap version 10.6 using digitized NOAA Nautical Charts or geo-referenced aerial photographs provided) The Maine Office of GIS (orthoCoastalCentralCoast2003and2005).

² The executed lease document for DAM PP2 states that the standard lease is "24 (twenty-four) acres, more or less". MDMR calculations, based on the provided coordinates, indicate the area is 23.76 acres.

Proposed Expansion

The applicant, Mook Sea Farm, is requesting a 3.86-acre expansion extending southwest from the southern boundary of existing standard lease DAM PP2, in the Damariscotta River (Figure 1). This expansion is proposed for the bottom culture of American oysters (*Crassostrea virginica*), European oysters (*Ostrea edulis*), Atlantic surf clams (*Spisula solidissima*), quahogs (*Mercenaria mercenaria*), soft-shell clams (*Mya arenaria*), bay scallops (*Argopecten irradians*) and sea scallops (*Placopecten magellanicus*). The applicant proposes to drag harvest this site and does not specify the maximum drag dimensions.³ No gear, other than the required boundary markers⁴, would be deployed on the proposed expansion, if granted.

On July 10, 2020, Maine Department of Marine Resources (MDMR) staff Flora Drury and Cheyenne Adams visited the proposed expansion. MDMR staff arrived on site at approximately 8:15 am. Low tide on July 10, 2020 was at 10:07 am with a height of 0.43 feet.⁵

General Characteristics

Standard lease DAM PP2 is located east of Perkins Point along the western shoreline of the Damariscotta River in Newcastle, Maine. The Newcastle uplands host a mixed forest and residential properties (Images 1-3). A dock, with a rowboat hauled out on it, and two unoccupied moorings were observed to the west of the proposed expansion during MDMR's visit to the area (Figure 2). The dock is located approximately 270 feet from the expansion's western boundary, and the two moorings are located approximately 80 feet and 115 feet to the west of the proposal (Table 2). Kayaks were observed on the uplands nearby the dock.

On July 10, 2020, MDMR staff conducted a visual analysis of the bottom of the proposed lease with a handheld digital video camera contained within an underwater housing (Figure 2). The bottom of the proposed lease is composed of soft mud, and therefore a mud plume is likely to be created when the applicant drag-harvests shellfish from the proposed lease (Image 4). No eelgrass (*Zostera marina*) was observed during MDMR's site assessment. Historical records of eelgrass beds collected by MDMR in 2005 indicate that the closest eelgrass beds to the proposed expansion were located approximately 1,600 feet to the north and 1,800 feet to the south.

³ Application, page 5

⁴ Page 7 of the application indicates that lobster buoys would be present on the proposed lease, seemingly in addition to small marking buoys. No other information in the application was provided to describe the purpose of these lobster buoys. Additionally, page 4 references that a mooring might be installed within the proposed lease to hold a boat. The location of this mooring was not discussed.

⁵ <http://tbone.biol.sc.edu/tide/tideshow.cgi>



Image 1: Looking southwest at the Newcastle shoreline from the NW corner of the proposed expansion, referred to as XNW in this report (July 10, 2020).



Image 2: Looking west at the Newcastle shoreline from the NW corner of the proposed expansion, referred to as XNW in this report (July 10, 2020).



Image 3: Looking northwest at the Newcastle shoreline and gear on existing lease DAM PP2 from the NW corner of the proposed expansion, referred to as XNW in this report (July 10, 2020).



Image 4: Soft mud on bottom of proposed expansion (July 10, 2020).

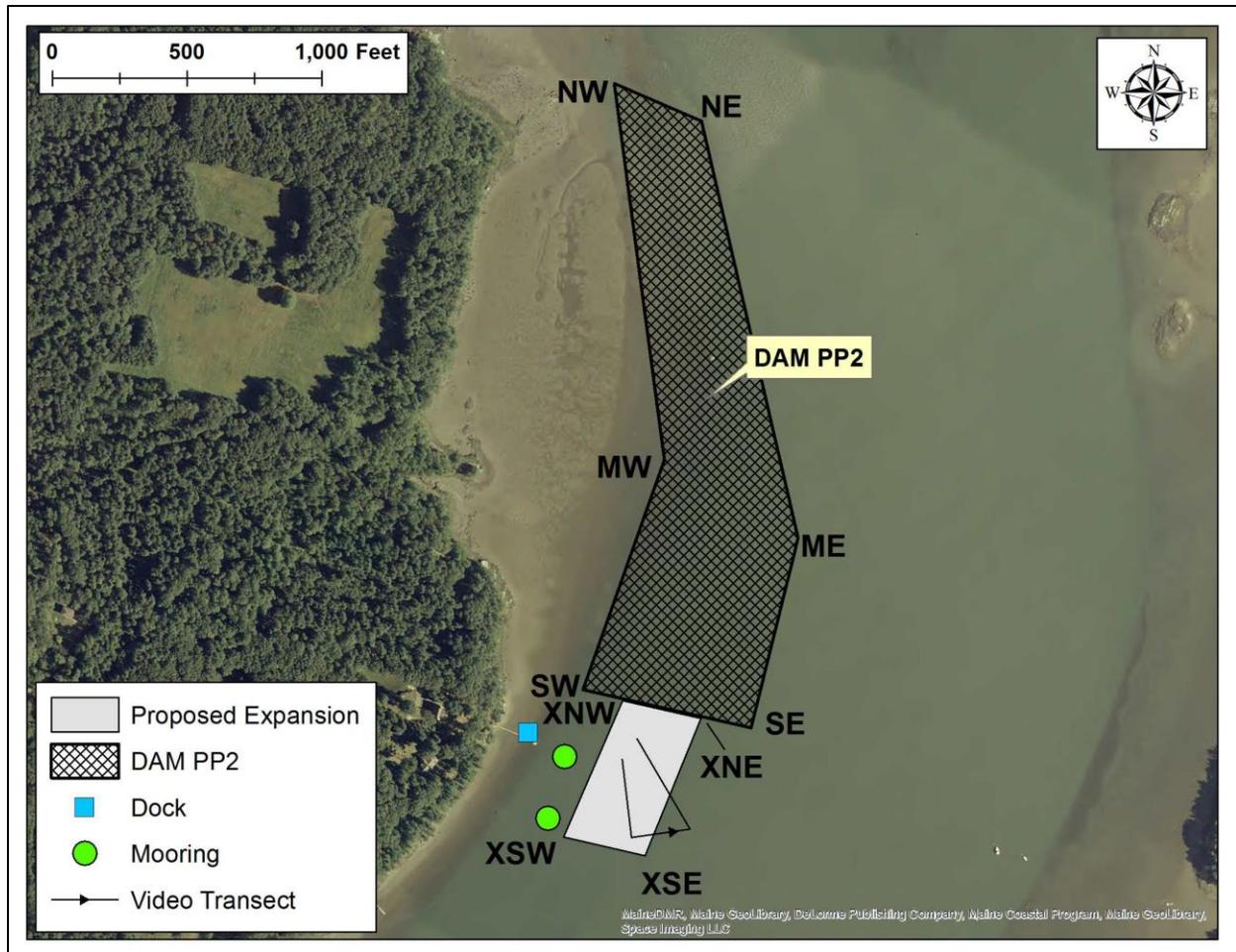


Figure 2: Proposed lease and surrounding area⁶.

Position and Distances to Shore

POSAID Positioning Software was used to verify the distances and bearings between proposed lease corners. Distances to shore were determined using the measuring tool in ArcMap 10.6, digital orthophotography provided by the Maine Office of GIS (unless otherwise noted), and the application coordinates.

Coordinates for Proposed Expanded Lease DAM PP2 (Datum WGS 84) Total Acreage: 27.62

| <u>Corner</u> | <u>Latitude</u> | <u>Longitude</u> | |
|---------------|-----------------|------------------|--|
| NW | 44° 00' 22.04"N | 69° 32' 43.88"W | <i>then 353.20 feet at 112.95° True to</i> |
| NE | 44° 00' 20.68"N | 69° 32' 39.43"W | <i>then 1,589.88 feet at 166.54° True to</i> |

⁶ The Damariscotta Harbormaster indicated there are three moorings permitted in this area (F. Drury/P. Bryant, 12.03.20). Only two were noted during the site visit.

| | | | |
|------------------|------------------|-----------------|---|
| ME | 44° 00' 05.41"N | 69° 32' 34.37"W | <i>then 730.16 feet at 193.55° True to</i> |
| SE | 43° 59' 58.40"N | 69° 32' 36.71"W | <i>then 190.12 feet at 281.37° True to</i> |
| XNE ⁷ | 43° 59' 58.77" N | 69° 32' 39.26"W | <i>then 551.75 feet at 201.77° True to</i> |
| XSE | 43° 59' 53.71"N | 69° 32' 42.06"W | <i>then 309.65 feet at 282.85° True to</i> |
| XSW | 43° 59' 54.39"N | 69° 32' 46.19"W | <i>then 550.03 feet at 23.00° True to</i> |
| XNW | 43° 59' 59.39"N | 69° 32' 43.25"W | <i>then 151.88 feet at 284.68° True to</i> |
| SW | 43° 59' 59.77"N | 69° 32' 45.26"W | <i>then 907.34 feet at 19.04° True to</i> |
| MW | 44° 00' 08.24"N | 69° 32' 41.21"W | <i>then 1410.97 feet at 352.05° True to NW.</i> |

Size of Lease Expansion

Existing standard lease DAM PP2 is 23.76 acres in size. The proposed expansion to this lease encompasses 3.86 acres. Per 12 MRSA §6072 (12-C), the leaseholder may only expand their lease by 25%, or 4 acres, whichever is less. As 25% of DAM PP2 is 5.93 acres, and because the proposed expansion to this lease is less than 4 acres, the proposal is in compliance with the size restrictions established in 12 MRSA §6072 (12-C). When combined, the existing lease and proposed expansion encompass a total of 27.62 acres.

Table 2: Approximate distances determined using ArcMap 10.6, digitized NOAA Charts, and the application coordinates.

| <u>Distances to nearby features</u> | |
|--|------------------------------|
| XNW Corner to low water line on Damariscotta River western shore, nearest point (NOAA Chart) | ~190 feet to the west |
| XSW Corner to low water line on Damariscotta River western shore, nearest point (NOAA Chart) | ~235 feet to the west |
| XSE Corner to low water line on Damariscotta River eastern shore, nearest point (NOAA Chart) | ~1,520 feet to the east |
| XNE Corner to low water line on Damariscotta River eastern shore, nearest point (NOAA Chart) | ~1,630 feet to the southeast |
| Western Boundary of proposed expansion to nearest dock | ~270 feet to the west |
| Western Boundary of proposed expansion to nearest mooring | ~80 feet to the west |
| Eastern boundary to contour line on which green can "17" is located | ~180 feet to the east |

⁷ The coordinates of the proposed lease expansion are listed on page 4 of the application. The coordinates listed on page 16 of the application are incorrect.

Some of the criteria MDMR uses to determine the suitability of an aquaculture expansion to a particular area (12 MRSA §6072 (12-C)) are discussed below, with respect to the proposed expansion:

Riparian Ingress/Egress and Navigation:

Mook Sea Farms is proposing to use this expansion for the bottom culture of shellfish. Therefore, no gear is proposed to occupy the area, other than the required boundary markers.⁸ As a result, although riparian owners would likely navigate through the proposed expansion to access the docks and moorings along the western shoreline of the Damariscotta River, this access should not be impacted, other than during times when the leaseholder is on-site seeding or harvesting. However, the moorings to the west observed during the site visit are located approximately 80 and 115 feet from the proposal. Therefore it is possible that boats occupying these moorings could swing close to the proposed expansion as result of tide, current, or weather conditions. According to the Damariscotta Harbormaster, three moorings are permitted in this general area, and the boats that use these moorings include small sailboats and a 24-foot powerboat.⁹

Furthermore, the proposed expansion is unlikely to interfere with navigation in the Damariscotta River’s marked navigation channel, as the proposed expansion is located 180 feet to the west of the contour line on which the green can “17” is located, which marks the west side of the navigational channel. Additionally, no gear is proposed to occupy the proposed expansion.

Fishing and Other Water-Related Uses:

The leaseholder requests that lobstering and shellfish harvesting be prevented from occurring in the area. Other than the exclusion of these activities, fishing and water-related uses within the area are unlikely to be impacted, except during times when the leaseholder is on-site seeding or harvesting, because the applicant does not propose to deploy gear in this expansion.

Other Aquaculture Uses:

There are no aquaculture leases or Limited Purpose Aquaculture (LPA) licenses within 1,000 feet of the proposed expansion to existing lease DAM PP2. The closest aquaculture activity to the proposed expansion is standard lease DAM WP, which is located approximately 1,005 feet to the southeast of the proposal and is held by Glidden Point Oyster Company. Additional leases and LPAs are located both upstream and downstream of the proposed lease expansion in the Damariscotta River.

⁸ See footnote 4.

⁹ Conversation between F. Drury and P. Bryant (12.03.20).