I. Introduction:

The *Tomales Bay Mooring Program* (MP) was developed as part of the Tomales Bay Vessel Management Plan by NOAA's Greater Farallones National Marine Sanctuary (GFNMS) staff in partnership with California State Lands Commission (CSLC) staff. Since 1981, when the GFNMS was designated, Sanctuary regulations have prohibited the discharge of materials into GFNMS and disturbance to the seabed, which includes the placement of moorings. Although mooring installation is still a prohibited activity, the establishment of the Vessel Management Plan in April 2013 and subsequent Mooring Program now allows for a mechanism to permit moorings. The program includes specific criteria for where moorings may be located on the bay, introduces mandatory specifications for mooring tackle, and requirements for the inspection and maintenance of moorings. Pursuant to the National Marine Sanctuaries Act, 16 USC §1431 *et seq.*, and regulations thereunder (15 CFR Part 922) and California Code of Regulations (Title 2, Division 3, Chapter 1), all private mooring holders must obtain a CSLC lease.

The primary goals for establishing a program for siting and permitting moorings on the bay are to: protect habitat; decrease threats to and disturbance of wildlife; and ensure safe and enjoyable water-related recreation by allowing moorings and removing and preventing illegally and improperly placed moorings and mooring materials. The Mooring Program (MP) uses an adaptive management approach for decisions regarding various mooring technologies (anchor and all other equipment) in Tomales Bay to select those that are the least damaging to the environment and appropriate for Tomales Bay hydrodynamic conditions. As new information is acquired and analyzed, requirements and specifications may be amended by GFNMS and CSLC in collaboration with the Tomales Bay Interagency Committee.

GFNMS and CSLC are administering the Mooring Program in partnership because both agencies have jurisdiction over Tomales Bay. Whereas GFNMS has regulatory authority over Tomales Bay, CSLC manages the State-owned lands that comprise Tomales Bay. To cooperatively administer the Mooring Program, GFNMS has issued a permit to CSLC to lease State sovereign lands in the bay for moorings that comply with federal and state laws. Consequently, CSLC's lessees will not need to obtain permits from GFNMS in addition their CSLC leases, reducing administrative burden on CSLC, GFNMS, and the public. The GFNMS permit to CSLC allows for moorings in the bay based on specific requirements such as: moorings will be in authorized locations; no moorings will be located in seagrass beds; mooring anchor must be appropriate for the specific conditions at each mooring lease location; and moorings shall be installed by a GFNMS approved mooring contractor. GFNMS and CSLC conditions will be incorporated into the lease agreements. Leases will require compliance with all federal, state, and local laws. Lessees are required to acknowledge that regulatory agencies have jurisdiction over the lease premises. Therefore, while mooring lease applicants will apply to only CSLC, the conditions that will apply to mooring leases in Tomales Bay will reflect CSLC and GFNMS requirements that were developed collaboratively with input from numerous agencies and stakeholders.

II. Tomales Bay Mooring Program Applicability and Exemptions:

- The MP allows for up to 165 moorings on Tomales Bay within CSLC and GFNMS jurisdiction. This includes 130 available leases for the use of State sovereign lands for privately owned vessel moorings and up to 35 moorings at Lawson's Landing. Use of State sovereign land for moorings at Lawson's Landing are subject to the terms and conditions of a 25-year commercial lease issued by CSLC in 1998 and that existing lease is not subject to the requirements of the MP for the remaining lease term. The 130 available leases are subject to the requirements of the MP.
- Moorings directly associated with aquaculture operations and located within state water bottom lease areas for aquaculture pursuant to a valid lease, permit, license or other authorization are regulated by California Department of Fish and Wildlife and Department of Public Health and not subject to the requirements of the MP.

III. CSLC Tomales Bay Mooring Program Lease Requirements:

- CSLC administers the MP and issues leases for the use of sovereign land for individual moorings within Tomales Bay under a permit from GFNMS. Without exceptions, all owners of private vessel moorings located within Tomales Bay, under the jurisdiction of CSLC, are required to obtain a lease from the CSLC.
- CSLC has agreed to retain a GFNMS permit to administer leasing activities in Tomales Bay. CSLC issues mooring leases consistent with the criteria in the MP; therefore, in accordance with GFNMS regulations 15 CFR 922.82. Moorings without a valid CSLC individual or commercial mooring lease are prohibited. No current or past Tomales Bay mooring owner is granted an automatic right to moor and no moorings will be automatically grandfathered in as exempt from the requirements of the MP.
- The cost of removal of an unauthorized mooring is the responsibility of the mooring Lessee.
- The Lessee purchases and owns all mooring tackle and pays for all installation, inspection, maintenance, and removal costs.
- Annual rent payment, proof of liability insurance, and a copy of current vessel registration is due annually to CSLC on or before lease anniversary date.
- CSLC General Lease- Recreational Use has a term of no greater than 10 years.

IV. Special Conditions for Tomales Bay Mooring Leases:

• Only one vessel is allowed on a mooring at one time. The vessel on the mooring must be registered to that mooring and to the Lessee or be registered to a guest of the Lessee. Guest boats are allowed, with permission from the Lessee, for no longer than 30 consecutive days

and only if they are the same size and weight or smaller than the vessel for which that mooring was designed.

- No sale or sub-leasing of mooring leases shall be allowed. Any sale, rental or sub-leasing of the mooring will result in immediate termination of the mooring Lease.
- Transfer of mooring leases will require an assignment authorized by the CSLC. Transfers are not automatic with the sale of a vessel or the littoral property.
- All moored vessels (including guest boats) must be registered and must display a current registration sticker or other visible proof of registration consistent with the requirements of applicable state and/or federal law.
- All mooring Lessees shall maintain, and upon the due date of their rent annually submit proof of, liability insurance that shall adequately protect both Lessee and Lessor against public liability and property damage. Guest boats must also meet these insurance requirements.
- Each Lessee is responsible for ensuring that mooring tackle is inspected and maintained. Failure to maintain a mooring shall be considered grounds for termination of the mooring Lease.
- The moored vessel is required to be secured firmly and the anchor shall be of a size and design sufficient to prevent the vessel or mooring anchor from drifting, dragging or otherwise moving off the assigned mooring site.
- All vessels that are authorized to moor within Tomales Bay must remain in operable condition while attached to the mooring. Any vessel that presents a threat to life, property, or the environment may be removed or impounded at the owner's expense.

V. Tomales Bay Mooring Program Mooring Criteria:

Leases shall be issued only in locations meeting all of the following eight criteria (as depicted as "the combined mooring exclusion areas" in Figure 1, Figure 1a. and Figure 1b.):

- 1. <u>Seagrass</u>: No vessel moorings shall be allowed in seagrass beds.
- 2. <u>Wildlife Disturbance</u>: No moorings shall be allowed in areas within 300 feet of seal haulout areas.
- 3. <u>Parcels Under Private Ownership Outside of CSLC Jurisdiction</u>: No vessel moorings shall be allowed on tidelands and submerged lands under private ownership.
- 4. <u>NPS-owned Tide and Submerged Lands Outside of GFNMS Jurisdiction</u>: Other than as necessary for NPS administrative use, no moorings shall be allowed on the submerged lands owned by NPS outside of GFNMS jurisdiction.
- 5. <u>Swimming Beach/Boat Launch Areas</u>: No moorings shall be allowed within 100 feet of swimming beaches and boat launch ramps.

- 6. <u>State Parks</u>: No moorings shall be allowed within 1000 feet offshore of State Parks property.
- 7. <u>Aquaculture</u>: No moorings shall be allowed within areas that fail to meet the California Department of Public Health calculations for safe distances between moorings and shellfish growing operations. No moorings shall be located within state water bottom lease areas for aquaculture unless authorized by the State of California.
- 8. <u>Navigation Channels</u>: No moorings shall be allowed within navigation channels of Tomales Bay.

The Interactive PDF Map contains layers showing the MP Mooring Criteria.

VI. Requirements for Location of Moorings:

- The CSLC will issue leases on only ungranted sovereign land under its jurisdiction. No mechanism currently exists for authorizing moorings on private parcels.
- Moorings and associated ground tackle shall be located within the boundaries of the MP *Mooring Zones* depicted on *Figure 1*, with the following exceptions:
 - 1. *Aquaculture:* State of California authorized aquaculture moorings used for aquaculture operations within state water bottom lease areas;
 - 2. *Adjacent to Developed Littoral Properties:* Owners of developed littoral properties may apply for a lease for the use of submerged sovereign lands for the placement, use, and maintenance of one or more moorings directly adjacent to and offshore of that developed littoral parcel. The mooring and attached vessel must meet all of the requirements of the MP including criteria for siting, installation, inspection, and maintenance.
 - 3. *Preexisting Vessel Moorings:* Mooring owners that applied for a Lease during the MP initial rollout period between August 10, 2015 and February 10, 2016, for moorings that existed prior to August 2013, are allowed to keep their moorings in the original location if that location meets all MP mooring criteria, the mooring passes inspection, and lease continues to be in good standing.
- CSLC does not guarantee that a Lease will be issued for the same location as the desired mooring location proposed by the applicant, even if that site meets all MP mooring criteria and is within an approved mooring zone. Space and capacity for moorings may be limited in some mooring zones. Spacing limitations will be initially determined by the mooring contractor and his/her expert opinion, but capacity in each zone is subject to review and approval based on numerous factors, including but not limited to proximity to aquaculture operations or other sensitive sites, or restricted land access to the mooring sites. If the proposed site is not accepted, CSLC will provide the applicant with an alternate location within a designated mooring zone, as near in proximity to the proposed location as feasible.

VII. Mooring Tackle Requirements:

In order to prevent vessels from separating from their moorings during extreme weather and sea

conditions on Tomales Bay, and to minimize environment impacts and public safety hazards, all vessel moorings authorized under the MP shall be subject to the following requirements, developed for Tomales Bay by the TBIC, for the design and construction, and inspection and maintenance of the mooring system:

- Mooring Lessees shall own and be responsible for maintaining all mooring tackle.
- All mooring equipment must be installed and inspected in accordance with the MP tackle and inspection requirements and by a GFNMS approved Mooring Contractor, at the Lessee's sole cost and expense.
- Owners of vessels over 55-feet must submit mooring plans from a credentialed marine engineer along with a completed CSLC lease application.
- The mooring tackle and anchor shall be appropriate for Tomales Bay benthic habitat and geologic and hydrodynamic conditions, and capable of withstanding extreme weather and sea conditions. Extreme conditions within Tomales Bay can include: maximum sustained winds of over 30 knots, with gusts over 75 knots; wave heights of up to six feet (3-6 second intervals); maximum current speed of 2-3 knots, and; a maximum tidal variation of 9.1 feet.

Buoys:

- Mooring buoys must be standard white, hard shell, with foam interior and with blue horizontal stripe. Buoys should be cleaned on a regular basis to ensure that blue horizontal stripe is above the water line.
- The associated CSLC lease number must be prominently displayed on the mooring buoy in block letters (minimum of 3") using black oil-based paint or permanent marine-quality stickers appropriate for use on mooring buoys. Buoys should be cleaned on a regular basis to ensure that the CSLC lease number is prominently displayed at all times.
- The cleat, post or deck hardware, which attaches to the pendant, shall be visibly free of rot, corrosion or disrepair and capable of withstanding loads, to the satisfaction of the approved Mooring Contractor.
- If a pendant is used, then chafing gear is required between the pendant and vessel.

Mooring Anchors:

• Mooring anchors must be appropriate for the specific conditions at each mooring lease location and must be approved by an approved Mooring Contractor. Engine blocks, Manta Ray and helical type anchors are not authorized. Examples of acceptable mooring anchors include pyramid (e.g., Dor Mor) or mushroom type anchors, properly designed and constructed one or two concrete filled 55-gallon drums, and clean railroad wheels.

- Anchor weight and design shall be proportional to the size of the vessel being moored and must be sufficient to hold the vessel in extreme weather conditions.
- Helix anchors are not permitted at this time but may be reconsidered upon further demonstration of their effectiveness, including long-term testing in Tomales Bay.

Rode:

- Chain and all metal components such as shackles, swivels, and eyes, shall be appropriately sized and of a high manufacturing quality (e.g. hot-dipped galvanized), to the satisfaction of the Mooring Contractor.
- Stainless steel safety wire or other binding material shall be required on all shackles to prevent unscrewing.
- If two individual lengths of chain (top and bottom chain) are required, they shall be shackled together, with swivel, to form one continuous length.
- Where the mooring chain is a single piece the shackle and swivel shall be placed between the anchor and chain.
- A shackle and swivel shall be used between buoy and top of mooring chain.
- All chain $\frac{1}{2}$ " and smaller shall be new upon initial installation.
- Seaflex or other elastic rodes shall not be permitted at this time but may be reconsidered upon further demonstration of their effectiveness including long-term testing in Tomales Bay.

VIII. List of GFNMS Approved Mooring Contractors:

• GFNMS staff have developed and will maintain a <u>list of mooring services contractors</u> approved for installing, inspecting and repairing/maintaining all moorings subject to the MP. Mooring installations will need to be inspected annually by an approved Mooring Contractor. Completed installation and annual inspection forms will be provided to CSLC.

IX. Inspection and Maintenance Requirements:

- Inspections by an approved Mooring Contractor shall be required for all moorings leased under the MP, at the mooring lessee's sole cost and expense. <u>Annual inspections and proof of inspection shall be submitted to CSLC within 30 days of inspection</u>.
- It is the mooring Lessee's responsibility to schedule and ensure that the required inspections occur.
- The mooring inspector must complete an Annual Mooring Inspection Form, which includes

the current GPS location, in decimal degrees with an accuracy of a minimum of 5 decimal place digits, of the mooring anchor and a statement certifying the condition of the mooring tackle and whether or not it passes inspection. This form must be submitted by the mooring Lessee or Mooring Contractor to CSLC annually within 30 days of inspection.

- If the mooring does not pass inspection, then the lessee shall be given 45-days to take corrective actions and submit a revised *Annual Mooring Inspection Form* signed by an approved Mooring Contractor. If corrective action is not taken within 45-days, the lease will be considered in default and CSLC may take action to terminate the lease. Once the lease is terminated, mooring tackle is subject to removal, at the owner's expense, pursuant to the authority of local, state, and federal laws and regulations. GNMFS will undertake enforcement of the MP and may remove any mooring tackle not currently authorized through a CSLC lease.
- Moorings/vessels that are determined during an inspection to be at risk of equipment failure shall be reported immediately by the Mooring Contractor to CSLC and GFNMS staff and shall require immediate action including potential removal at the Lessee's expense.
- Mooring pendants, if used, shall be inspected annually and kept in good condition at all times. The mooring Lessee shall routinely check pendant for chafing and wear and replace as necessary to prevent pendant failure.

X. Mooring Lease Application Process and Submittal Information Requirements for New Moorings:

The following section outlines the general lease application process for all new moorings.

- The following information shall be submitted by the applicant along with a completed <u>Application for Lease of State Lands</u> for review prior to consideration of a mooring lease by the CSLC at a public meeting:
 - \checkmark The name and address of the vessel owner/mooring lease applicant;
 - ✓ A <u>Pre-installation Mooring Proposal Form</u> requesting a proposed mooring location and including_a detailed description and schematic diagram of all mooring tackle planned for use, including the planned size, shape and color of the buoy;
 - Recent color photograph(s) of and general description of the size and type of vessel(s) to be attached to the mooring;
 - ✓ Documentation of vessel ownership in the lease applicants name, consisting of applicable valid Department of Motor Vehicle registration or U.S. Coast Guard Certificate of Documentation;
 - Proof of valid liability insurance upon the due date of their rent for the vessel(s) proposed to be moored;
 - ✓ Letter authorizing or permitting access through a privately-owned parcel if applicable;

- ✓ Statement of need if more than one mooring is being requested.
- ✓ If the vessel is over 55-feet, applicant must submit mooring plans from a credentialed marine engineer.
- If the mooring lease application is for a littoral property owner then the following information, in addition to the above requirements, shall be required to be submitted:
 - ✓ The address and *Assessor's Parcel Number* of the developed littoral parcel.
 - ✓ Copy of the current upland vesting document (Deed).
- Lessees shall be responsible for promptly notifying CSLC staff of any changes to the original information provided on the application.

XI. Mooring Lease Costs:

- Application processing costs and non-refundable filing fee will be required by CSLC at the time of application submission.
- Mooring lease rent shall be payable annually.
- Lease Application Fees do not include the costs of the mooring equipment or its installation, inspection, maintenance, annual rent, or removal.

XII. Mooring Installation and Positioning:

- The Mooring Contractor, who is responsible for installation of a mooring, is required to fill out a <u>Pre-installation Mooring Proposal Form</u>, which shall be submitted to CSLC by the contractor or applicant who submitted the CSLC mooring lease application. Required submittal information on this form includes: GPS location of the proposed mooring anchor; a detailed description and schematic diagram of the proposed mooring tackle; current vessel registration and lessee's contact information.
- Lessee shall be required to have the mooring installed by an approved Mooring Contractor at the location approved in the CSLC Lease within 180-days of CSLC issuance of the lease, unless CSLC notifies the Mooring Contractor in writing that they are able to extend the 180-day deadline.
- If the Mooring Contractor does not install at the approved location, then they shall install as close to that location as feasible and submit, to CSLC, the final location and a written explanation of the reason it could not be installed at the approved location (e.g. too close in proximity to an existing mooring). <u>Under no circumstances shall a mooring be installed in a location within the *Combined Mooring Exclusion Areas* depicted in the attached figures.</u>
- Within 30 days of the mooring installation the Mooring Contractor who installed the mooring shall complete, and submit to CSLC, a *Post Mooring Installation Form*.

• Any new mooring installations within Mooring Zone 1 will require that a GFNMS observer be present throughout the installation to observe the process and approve the final location before the mooring contractor sets the mooring anchor.

XIII. Mooring Lease Termination:

A Lease will include provisions that the lease may be terminated by CSLC upon a breach of the lease, which includes, but is not limited to the following occurrences upon described notification as outlined in the lease:

- Failure to pay mooring lease rent on time;
- Failure to provide evidence of the required liability insurance;
- Failure to submit an Annual Mooring Inspection Form (within 30 days of inspection due date);
- Failure to pay annual rent, and show annual proof of the required liability insurance and current vessel registration when due;
- Failure to comply with MP mooring tackle requirements or mooring inspection requirements;
- Failure to maintain mooring or perform required repairs and maintenance within 45 days of failing an annual mooring inspection;
- Failure to maintain the moored vessel in seaworthy and operable condition;
- Selling, renting, or subleasing a mooring lease; and
- Transferring ownership of a non-littoral property mooring lease, or transfer of a littoral property lease without prior approval by CSLC.

If the mooring owner does not remove a mooring system and associated vessel within 45 days of lease termination, then the mooring owner would be in violation of state and federal laws and regulations, including but not limited to violations of California Public Resources Code, California Code of Regulations Title 14, The National Marine Sanctuaries Act and Regulations at 15 CFR, Part 922, Section H. GNMFS will be responsible for enforcement of the MP and may remove the mooring system and associated vessel at the mooring owner's expense.

XIV. Compliance Monitoring and Enforcement:

- Current laws and regulations shall be enforced. No unauthorized moorings are allowed to exist within Tomales Bay. GFNMS staff, in coordination with other TBIC agencies shall conduct regular ongoing compliance monitoring and maintain a database of permitted moorings on the bay.
- Unauthorized moorings are subject to removal at the owner's expense and would be in violation of state and federal laws and regulations including, but not limited to violations of California Public Resources Code, California Code of Regulations Title 14, The National Marine Sanctuaries Act and Regulations at 15 CFR, Part 922, Section H.

Figure 1: Map of Tomales Bay Mooring Zones

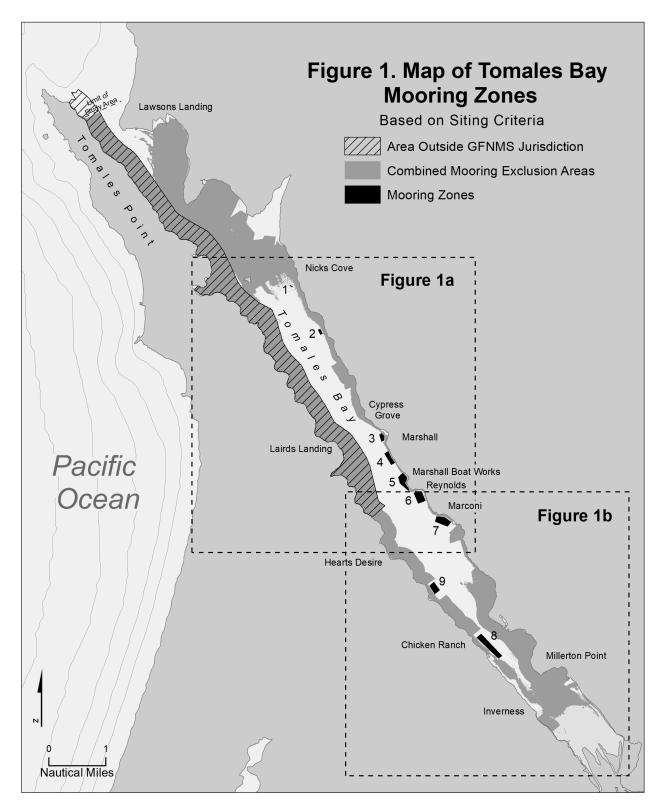


Figure 1a: Map of Tomales Bay Mooring Zones

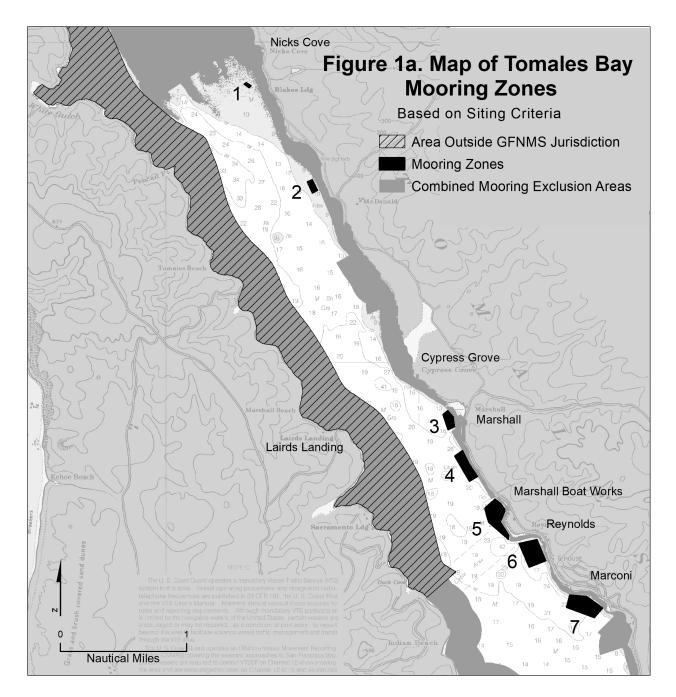
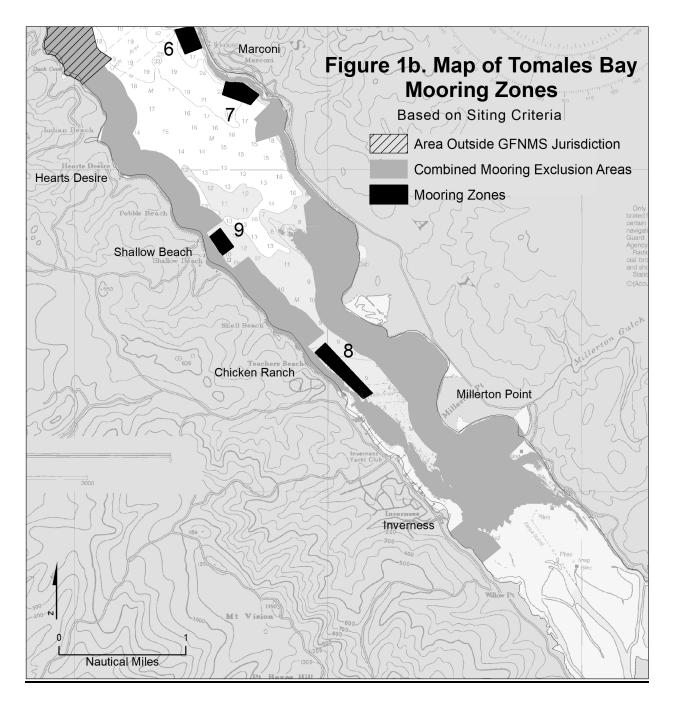


Figure 1b: Map of Tomales Bay Mooring Zones



Tomales Bay Mooring Zone Vertex Coordinates, June 2021:

The following tables include the location coordinates for the nine Tomales Bay Mooring Program zones. Connect the coordinates clockwise starting with Point 1 for each zone. To view these zones in more detail, download the Tomales Bay Mooring Program <u>Interactive PDF Map</u> available on the GFNMS Tomales Bay webpage.

MOORING ZONE 1				
Point ID	Latitude	Longitude		
1	38.19731	-122.92391		
2	38.19755	-122.92317		
3	38.19701	-122.92317		
4	38.19701	-122.92278		
5	38.19582	-122.92223		
6	38.19548	-122.92332		
7	38.19731	-122.92391		
	MOORIN	G ZONE 2		
Point ID	Latitude	Longitude		
1	38.18591	-122.91375		
2	38.18475	-122.91312		
3	38.18437	-122.91400		
4	38.18554	-122.91469		
5	38.18591	-122.91375		
	MOORIN	G ZONE 3		
Point ID	Latitude	Longitude		
1	38.16173	-122.89617		
2	38.16105	-122.89541		
3	38.16004	-122.89528		
4	38.15972	-122.89613		
5	38.16131	-122.89679		
6	38.16173	-122.89617		
	MOORIN	G ZONE 4		
Point ID	Latitude	Longitude		
1	38.15758	-122.89421		
2	38.15610	-122.89329		
3	38.15487	-122.89223		
4	38.15436	-122.89331		
5	38.15700	-122.89528		
6	38.15758	-122.89421		

MOORING ZONE 5			
Point ID	Latitude	Longitude	
1	38.15150	-122.88867	
2	38.15120	-122.88867	
3	38.15017	-122.88922	
4	38.14844	-122.88782	
5	38.14827	-122.88812	
6	38.15012	-122.89081	
7	38.15157	-122.89130	
8	38.15254	-122.88992	
9	38.15204	-122.88917	
10	38.15150	-122.88867	
	MOORING ZON	NE 6	
Point ID	Latitude	Longitude	
1	38.14791	-122.88679	
2	38.14831	-122.88440	
3	38.14609	-122.88324	
4	38.14542	-122.88545	
5	38.14791	-122.88679	
	MOODINC 701	JE 7	
	MOORING ZON	NE /	
Point ID	Latitude	Longitude	
1	Latitude 38.14240	Longitude -122.87786	
1 2	Latitude 38.14240 38.14119	Longitude -122.87786 -122.87574	
1 2 3	Latitude 38.14240 38.14119 38.14017	Longitude -122.87786 -122.87574 -122.87685	
1 2 3 4	Latitude 38.14240 38.14119	Longitude -122.87786 -122.87574	
1 2 3 4 5	Latitude 38.14240 38.14119 38.14017 38.14124 38.14254	Longitude -122.87786 -122.87574 -122.87685 -122.88053 -122.88010	
1 2 3 4	Latitude 38.14240 38.14119 38.14017 38.14124 38.14254 38.14240	Longitude -122.87786 -122.87574 -122.87685 -122.88053 -122.88010 -122.87786	
1 2 3 4 5 6	Latitude 38.14240 38.14119 38.14017 38.1424 38.1424 38.14254 38.14254 38.14240	Longitude -122.87786 -122.87574 -122.87685 -122.88053 -122.88010 -122.87786 VE 8	
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1 2 3 4 5 6 Point ID 1 2	Latitude 38.14240 38.14119 38.14017 38.14240 38.14240 38.14254 38.14240 MOORING ZON Latitude 38.11029 38.10971	Longitude -122.87786 -122.87574 -122.87685 -122.88053 -122.88010 -122.87786 VE 8 Longitude -122.86084 -122.86202	
1 2 3 4 5 6 Point ID 1 2 3	Latitude 38.14240 38.14119 38.14017 38.14240 38.14254 38.14254 38.14240 MOORING ZON Latitude 38.11029 38.10971 38.11449	Longitude -122.87786 -122.87574 -122.87685 -122.88053 -122.88010 -122.87786 VE 8 Longitude -122.86084 -122.86838	
1 2 3 4 5 6 Point ID 1 2 3 4	Latitude 38.14240 38.14119 38.14017 38.1424 38.14254 38.14254 38.14240 MOORING ZON Latitude 38.11029 38.11049 38.11547	Longitude -122.87786 -122.87574 -122.87685 -122.88053 -122.88010 -122.87786 VE 8 Longitude -122.86084 -122.86202 -122.86202 -122.86838 -122.86704	
1 2 3 4 5 6 Point ID 1 2 3	Latitude 38.14240 38.14119 38.14017 38.14244 38.14254 38.14240 MOORING ZON Latitude 38.11029 38.10971 38.11449 38.11547 38.11029	Longitude -122.87786 -122.87574 -122.87685 -122.88053 -122.88010 -122.87786 VE 8 Longitude -122.86084 -122.86202 -122.86838 -122.86704 -122.86084	
1 2 3 4 5 6 Point ID 1 2 3 4 5 5	Latitude 38.14240 38.14119 38.14017 38.14240 38.14240 38.14254 38.14240 MOORING ZON Latitude 38.11029 38.11049 38.11547 38.11029	Longitude -122.87786 -122.87574 -122.87685 -122.88053 -122.88010 -122.87786 VE 8 Longitude -122.86084 -122.86084 -122.86704 -122.86704 -122.86084 VE 9	
1 2 3 4 5 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	Latitude 38.14240 38.14119 38.14017 38.14017 38.14240 38.14254 38.14240 MOORING ZON Latitude 38.11029 38.11547 38.11029 MOORING ZON Latitude 38.11029 MOORING ZON Latitude	Longitude -122.87786 -122.87574 -122.87685 -122.88053 -122.88053 -122.88010 -122.88010 -122.88010 -122.88023 -122.88010 -122.88020 -122.86084 -122.86704 -122.86084 VE 9 Longitude	
1 2 3 4 5 6 Point ID 1 2 3 4 5 Point ID 1 2 3 4 5 Point ID 1 1 1 2 3 4 5 1 1 2 3 4 5 5 6 1 1 1 2 3 4 5 5 6 1 1 1 1 1 1 1 1 1 1 1 1 1	Latitude 38.14240 38.14240 38.14119 38.14017 38.14240 38.14254 38.14240 MOORING ZON Latitude 38.1029 38.11029 38.11547 38.11029 MOORING ZON Latitude 38.11547 38.11029 MOORING ZON Latitude 38.11547 38.11029	Longitude -122.87786 -122.87574 -122.87685 -122.88053 -122.88053 -122.88010 -122.88010 -122.88010 -122.88010 -122.88010 -122.88010 -122.88010 -122.87786 VE 8 Longitude -122.86084 -122.86704 -122.86084 VE 9 Longitude -122.88220	
1 2 3 4 5 6 Point ID 1 2 3 4 5 Point ID 1 2 3 4 5 Point ID 1 2 3 4 5 Point ID 1 2 3 4 5 5 5 5 5 5 5 5 5 5 5 5 5	Latitude 38.14240 38.14119 38.14017 38.14240 38.14240 38.14254 38.14240 MOORING ZON Latitude 38.11029 38.11029 38.11547 38.11029 MOORING ZON Latitude 38.11547 38.11029 MOORING ZON Latitude 38.11547 38.12650 38.12650 38.12737	Longitude -122.87786 -122.87574 -122.87685 -122.88053 -122.88053 -122.88010 -122.88010 -122.88010 -122.88010 -122.88010 -122.88010 -122.87786 VE 8 Longitude -122.86084 -122.86704 -122.86084 VE 9 Longitude -122.88220 -122.88083	
1 2 3 4 5 6 Point ID 1 2 3 4 5 Point ID 1 2 3 4 5 Point ID 1 1 1 2 3 4 5 1 1 2 3 4 5 5 6 1 1 1 2 3 4 5 5 6 1 1 1 1 1 1 1 1 1 1 1 1 1	Latitude 38.14240 38.14240 38.14119 38.14017 38.14240 38.14254 38.14240 MOORING ZON Latitude 38.1029 38.11029 38.11547 38.11029 MOORING ZON Latitude 38.11547 38.11029 MOORING ZON Latitude 38.11547 38.11029	Longitude -122.87786 -122.87574 -122.87685 -122.88053 -122.88053 -122.88010 -122.88010 -122.88010 -122.88010 -122.88010 -122.88010 -122.88010 -122.87786 VE 8 Longitude -122.86084 -122.86704 -122.86084 VE 9 Longitude -122.88220	

Tomales	-122.88220	38.12650	5
Bay			

Mooring Zone Vertex Coordinates (continued)