APPENDIX A: RELATED LAWS, POLICIES, PLANS, AND CONSTRAINTS

NPS *Management Policies* **2006**. NPS *Management Policies* **2006** addresses motorized equipment in "Section 8.2.3: Use of Motorized Equipment" (NPS 2006). This section states:

The Service will strive to preserve or restore the natural quiet and natural sounds associated with the physical and biological resources of parks. To do this, superintendents will carefully evaluate and manage how, when, and where motorized equipment is used by all who operate equipment in the parks, including park staff. Uses and impacts associated with the use of motorized equipment will be addressed in park planning processes. Where such use is necessary and appropriate, the least impacting equipment, vehicles, and transportation systems should be used, consistent with public and employee safety. The natural ambient sound level—that is, the environment of sound that exists in the absence of human-caused noise—is the baseline condition, and the standard against which current conditions in a soundscape will be measured and evaluated.

NPS *Management Policies 2006* address management of personal watercraft (PWC) use in "Section 8.2.3.3: Personal Watercraft Use" (NPS 2006). This section states:

Personal watercraft use is generally prohibited by 36 CFR 3.24. However, it may be allowed within a park by special regulation if it has first been determined through park planning to be an appropriate use that will not result in unacceptable impacts.

RELATED PLANS, POLICIES, AND ACTIONS FOR GULF ISLANDS NATIONAL SEASHORE

Gulf Islands National Seashore General Management Plan / Environmental Impact Statement (2014). In September 2003, the national seashore initiated a general management planning effort to provide direction for managing the national seashore during the next 20 years. The final general management plan discusses PWC use issues at the time the plan was published (NPS 2014a). The general management plan states that the National Park Service (NPS) is addressing the deficiencies identified by the 2010 court decision by preparing an environmental impact statement for PWC use at the national seashore, which will include supplemental documentation, impact analyses not present in the earlier environmental assessment, and may include additional alternatives. The final general management plan clarifies that future PWC use at the national seashore will depend on the outcome of the PWC use environmental impact statement planning process, which will consider a range of alternatives for managing PWC access, including one alternative that would end PWC use in the national seashore.

Superintendent's Compendium. Annual compendiums are composed by NPS superintendents to detail specific regulations applicable to a variety of topics within park units. The current Superintendent's Compendium for the national seashore (NPS 2019) outlines regulations relevant to boating and other public recreation use within the national seashore. Restrictions include closures of facilities and natural and cultural resource areas to visitor use.

OTHER PLANS, POLICIES, AND ACTIONS RELATED TO PWC USE

United States Environmental Protection Agency Emission Standards. The US Environmental Protection Agency's (EPA's) first emission standard under the Clean Air Act for new PWC and outboard

marine engines was made effective through a 1996 final rule (EPA 1996). The emission standards first applied to model year 1998 PWC, with more stringent standards being phased in over time. Prior to this regulation, emissions from recreational gasoline marine engines were essentially uncontrolled and the predominant two-stroke engines emitted high levels of hydrocarbons. Hydrocarbon emissions contribute to the formation of ground level ozone (a major component of smog), which in turn has substantial respiratory health impacts (EPA n.d.).

Because it is typically more difficult to reduce emissions on a given type of engine as its power decreases, the EPA emissions standards are a function of the rated power of the engine. The standards are more stringent for larger engines than they are for smaller engines. The standards were initially established in the form of a limit on hydrocarbon plus nitrogen oxides $(HC + NO_X)$ in units of grams per kilowatt-hour. Another important aspect of the emission standard is that it is corporate average. In other words, manufacturers can produce some models with higher emissions as long as offset by cleaner models with similar engine power so that the average emissions meet the standard. The standards did not mandate the use a specific technology, giving manufacturers flexibility in deciding how to meet the emissions standard.

The primary effect of the 1996 rule was to encourage the sales of cleaner direct injection two-stroke and four-stroke recreational marine engines. Over time, many of the older carbureted two-stroke engines were retired from use due to their age and replaced by newer, cleaner technologies. At the time of the 1996 final rule, EPA projected a 75% reduction in hydrocarbon emissions from recreational marine engines by 2025 as a result of the emissions standard (in comparison to the emissions of the two-stroke carbureted engines common at that time). EPA also noted that the standards would improve fuel economy and performance (EPA 1996).

In 2008 EPA issued a new rule tightening the emissions standards for recreational marine engines beginning with the 2010 model year (EPA 2008a). In addition to continuing the HC + NO_X based standards, the 2008 rule added a new standard for carbon monoxide emissions (carbon monoxide emissions from this type of engines were unregulated previously). The regulatory impact analysis for the 2008 final rule found that it would reduce marine spark-ignition engine emissions nationally by 2030 as follows (as compared to a base case scenario that included the effect of existing pre-1998 regulations): HC – 70% reduction, NO_X – 44% reduction, PM – 80% reduction, CO – 19% reduction. On a national basis, these emissions reductions would translate into fewer premature deaths, fewer emergency room visits, fewer lost days of work, and fewer acute respiratory systems, among other benefits (EPA 2008b).

APPENDIX B: FEDERAL AND STATE VESSEL OPERATION REGULATIONS

VESSEL OPERATIONS REGULATIONS IN 36 CFR 3.8.b. 1-5

The following operations are inherently unsafe and therefore prohibited. Operating a power-driven vessel in excess of flat-wake speed within 100 feet of a diver's flag, a downed skier, swimmers, a person wading, a person fishing from the shore, or floating with the aid of a floatation device is prohibited. Unless a designated area is marked otherwise, operating a power-driven or sailing vessel within 500 feet of a shoreline designated as a swimming beach. At the national seashore, these swim beaches include Johnson Beach, Langdon Beach, Opal Beach, and West Ship Island Beach.

PERSONAL WATERCRAFT SAFETY AND OPERATING REGULATIONS IN 36 CFR 3.9.b

- No person may operate a personal watercraft (PWC) unless each person aboard is wearing a Type I, II, III, or V personal flotation device (PFD) approved by the United States Coast Guard.
- A person operating a PWC equipped by the manufacturer with a lanyard-type engine cut-off switch must attach such lanyard to his person, clothing, or PFD, as appropriate for the specific vessel.
- No person may operate a PWC anytime between sunset and sunrise.
- No person may operate a PWC by jumping the wake, becoming partially airborne or completely leaving the water while crossing the wake of another vessel within 100 feet of the vessel creating the wake.
- If a national seashore area is located within a state that has more restrictive regulations for the operation of PWC, then applicable state law applies in lieu of paragraphs (b)(1) through (b)(4) of this section.

ADDITIONAL PWC SAFETY AND OPERATING REGULATIONS IN FLORIDA AND MISSISSIPPI STATE LAW

Florida (Florida Statutes 2018):

- Everyone on board or being towed behind a PWC must wear a US Coast Guard approved Type I, II, III, or V PFD at all times. Inflatable PFDs are not to be worn on PWCs.
- A person born on or after January 1, 1988, may not operate a vessel powered by a motor of ten
 horsepower or greater unless such person has in his or her possession aboard the vessel
 photographic identification and a boater safety identification card issued by the commission, or a
 state-issued identification card or driver license indicating possession of the boater safety
 identification card.
- No one under the age of 14 years may operate any PWC. No one under the age of 18 years may rent or lease a PWC.
- It is illegal to
 - Weave PWCs through congested waterway traffic.

- Swerve at the last possible moment in order to avoid collision.
- Jump the wake of another boat unreasonably or unnecessarily close to that boat.

Mississippi (Mississippi Department of Marine Resources 2010):

- People younger than 12 years of age shall not operate a PWC unless accompanied by an adult at least 21 years of age and they must have completed a boating safety course.
- Anyone born after June 30, 1980, must successfully complete an approved boating safety course prior to operating any motorized vessel.
- Operation of a PWC at any more than flat-wake speed is restricted within and 100 feet adjacent to any small craft, marina, or public boat launch ramp. Operation is prohibited within 100 feet behind a water skier or another vessel.
- Each person riding on or towed behind a PWC must wear a Type I, II, or III US Coast Guard-approved PFD.
- PWCs should not be operated in a manner that requires the operator to swerve at the last possible moment to avoid collision. Furthermore, a PWC should not jump the wake of another boat recklessly or unnecessarily close to that boat.
- In addition to the requirements above, Mississippi Ordinance No. 16.002 states that on marine waters south of Interstate Highway 10 (I-10)
 - PWCs must have a self-circling device or lanyard-type ignition safety switch with the lanyard attached to the operator's person, clothing, or PFD.
 - PWCs must not be operated at an excessive speed within 100 feet of another occupied boat or PWC except in a crossing situation or overtaking in accordance with the navigation rules.

APPENDIX C: EDUCATION AND OUTREACH ELEMENTS UNDER ALL ACTION ALTERNATIVES

The national seashore is committed to communicating to the public how and where personal watercraft (PWC) may be used. In order to accomplish this, the national seashore would use new and existing methods of conveying information to the public and other stakeholders (such as local PWC rental companies), including:

- The National Park Service (NPS) would share information on the national seashore's website and social media outlets regarding PWC flat-wake zones and closures. This information could take the form of maps, text descriptions of restrictions, or other means that most effectively communicates PWC regulations to the public.
- The national seashore would develop and distribute an informational handout related to PWC use and resource protection. This handout could include information on resource protection closures, the location of flat-wake zones, or other similar information. This handout could be made available at visitor contact areas or other appropriate locations.
- National seashore (commercial use authorization) staff may periodically contact PWC rental companies to share information about shorebirds and seagrasses, as well as any information regarding PWC use regulations in the national seashore.
- The national seashore would share information in public interpretive programs about minimizing impacts to seagrasses and wildlife, particularly associated with PWC and boats.

APPENDICES