



Competitive Solicitation  
Request For Proposals (RFP) - Supplier Diversity Strategy

---

**RFP 325-475 – Life Jacket Wear Rate Observation Study**

---

**Brief Description:** Washington State Parks and Recreation Commission's (State Parks) Boating Program is seeking consultant services to facilitate a study of life jacket wear rates in Washington. The study will include developing and conducting an observation plan, completing analysis of the results, and preparation of a report including comparisons with prior statistics.

**Priority Statement:** Because the contract is estimated to be less than \$150,000, State Parks will award to the lowest responsive and responsible bid from a small or veteran-owned business, unless none of these businesses meet the criteria. See Section 1.3 for further information.

**Proposal Due Date: Wednesday, December 17, 2024, by 1 PM (PST)**

**Electronic Bid Responses Only:** Bid responses will only be accepted electronically via email/email attachment submitted to [BidBox@parks.wa.gov](mailto:BidBox@parks.wa.gov) (pdf format).  
See RFQQ Sections 2, 3, & 4 for submission details.

**Procurement Coordinator: Susan Jabal**      email inquiries to: [contracts@parks.wa.gov](mailto:contracts@parks.wa.gov)

Bidders are responsible for properly registering in the Washington's Electronic Business Solutions (WEBS) system here: <https://pr-webs-vendor.des.wa.gov/>, and downloading the solicitation document and all appendices and related documents from WEBS. Notification of any solicitation addenda, amendments, or questions & answers will only be provided via WEBS. Failure to register for this solicitation in WEBS may result in a Bidder having incomplete, inaccurate, or otherwise inadequate information. WEBS is the official system of record for this competition.

It is each Bidders responsibility to fully read and understand all provisions of this RFP. If a Bidder does not fully understand any portion of this RFP, they should contact the Procurement Coordinator. It is the responsibility of each Bidder to carefully read, understand, and follow all instructions contained in this RFP and any subsequent amendments.

---

# Table of Contents

1	Information About the Procurement.....	5
1.1	Acquisition Authority .....	5
1.2	Purpose of the Procurement – Award a Contract .....	5
	<i>Background</i> .....	<b>Error! Bookmark not defined.</b>
	<i>Contract Term</i> .....	5
	<i>Estimated Contract Value</i> .....	5
	<i>Requirements</i> .....	5
	<i>Preferred Skills</i> .....	5
	<b>Project Overview</b> .....	5
	<b>Core Study Objectives</b> .....	6
	<b>Methodology</b> .....	6
	<b>Data Analysis and Reporting</b> .....	6
	<b>Objectives / Timeline</b> .....	7
1.3	Washington State Procurement Priorities & Preferences .....	8
2	Deadlines, Prebid Conference, Questions And Procurement Schedule.....	10
2.1	Communication Regarding this Competition.....	10
2.2	Prebid Conference .....	10
2.3	Question and Answer Period.....	10
2.4	Complaint Period.....	10
2.5	Procurement Schedule.....	11
3	Special Terms .....	12
3.1	Advanced Payment Prohibition .....	12
3.2	Business Structure & Employees (Compliance with Law).....	12
3.3	The Resulting Contract and its Terms and Conditions.....	12
4	Responses - Required Content, Format, and Scoring .....	13
4.1	Checklist of Required Submittals.....	13
4.2	(Appendix A) – Bidder’s Certifications, Assurances, And Waiver.....	14
4.3	(Appendix B) – Bidder’s Profile .....	14
4.4	(Appendix C) – Bid Price.....	14
4.5	Experience and Expertise .....	15
4.6	Approach - Work Plan and Project Schedule.....	15
4.7	(Appendix D) - References .....	16
4.8	(Appendix E) – Diverse Business Inclusion Plan – Subcontractors .....	16
5	Responses – Preparation, Submission Requirements and Preferences .....	17
5.1	Submission of Responses .....	17
5.2	Response Layout Requirements.....	17
5.3	Washington State Procurement Priorities & Preference .....	18
6	Evaluation And Award .....	20
6.1	Bid Responsiveness .....	20
6.2	Bidder Responsibility Analysis .....	20
6.2.1	Rejected Bids/Bidders & Rejection Notification & Rejection Response .....	21

6.3	General Evaluation Provisions .....	22
6.4	Evaluation of Completion by Date .....	22
6.5	Evaluation Steps.....	22
6.5.1	Preliminary Evaluation (Procedural).....	22
6.5.2	Substantive Evaluation: Phase 1 .....	23
6.5.3	Substantive Evaluation: Phase 2 (Optional) .....	23
6.6	Oral Presentation (optional).....	24
6.7	Oral Presentations Evaluation CRITERIA (OPTIONAL) .....	24
6.8	Selection of Apparent Successful Bidder .....	24
7	Announcement of ASB, Public Disclosure, Debrief, and Protests .....	25
7.1	Announcement of Apparent Successful Bidder (ASB) .....	25
7.2	Procurement Records Disclosure .....	25
7.3	Debriefing of Bidders .....	25
7.3.1	How to Request a Debrief Conference .....	25
7.3.2	Debrief Meeting, Discussion, and Delay.....	26
7.3.3	Debrief Is a Prerequisite for Protest .....	26
7.4	Protest.....	26
7.4.1	General: .....	26
7.4.2	Form and Content .....	26
7.4.3	Content Limitations .....	26
7.4.4	Submission of Protests.....	27
7.4.5	Grounds Which may be Protested.....	27
7.4.6	Manager Assignment and Review.....	27
7.4.7	Protest Determinations and Findings .....	27
7.4.8	Agency Decision is Final.....	28
8	Additional General Provisions for all Bidders .....	29
8.1	Announcement and Special Information.....	29
8.2	Contracting with Current or Former State Employees.....	29
8.3	Amendments to the Competition.....	29
8.4	Responsiveness of Bidder's Response .....	29
8.5	Clarity and Clarifications.....	29
8.6	Cost of Response Preparation .....	29
8.7	Ownership Of Responses .....	30
8.8	Final Selection & No Obligation .....	30
8.9	Incorporation of Response in Contract .....	30
8.10	Statewide Vendor Payment Registration.....	30
8.11	WEBS Registration .....	30
8.12	Polychlorinated Biphenyls (PCB's) Notice.....	30
8.13	Small and Diverse Business.....	30
8.14	Access Equity Contract Reporting.....	31
8.15	Public Disclosure & Waiver of Proprietary Information.....	32
8.16	Civil Rights Compliance .....	32
9	APPENDICES AND EXHIBITS.....	33
9.1	(Appendix A) – Bidder's Certifications, Assurances, and Waiver .....	34
9.2	Appendix B – Bidder Profile.....	38
9.3	Appendix C – Bid Price Proposal.....	40

---

9.4	APPENDIX D - REFERENCES (return this page).....	41
9.5	Appendix E – Diversity Business Inclusion Plan - Subcontractors.....	42
9.6	(EXHIBIT A) – Sample Contract with General Terms and Conditions.....	44

---

## **1 Information About the Procurement**

---

This section describes the purpose of the competitive solicitation and provides information about this procurement, including the potential scope of the opportunity.

### **1.1 Acquisition Authority**

In accordance with RCW Chapter 39.26, the objective of this Request for Proposals (RFP) is to procure the goods and/or services described herein. State agency purchases must follow a competitive solicitation process, ensuring that the contract is awarded to the lowest responsive and responsible bidder.

This process ensures fairness, transparency, and accountability in procurement. By following these guidelines, we seek to obtain the best value for the state while maintaining the integrity of our procurement practices. All bidders must meet specified criteria and demonstrate their ability to fulfill contract requirements. The evaluation will consider both the price and the bidder's ability to perform the contract effectively and efficiently.

### **1.2 Purpose of the Procurement – Award a Contract**

The purpose of this Competitive Solicitation is to receive competitive bids to evaluate and, as appropriate, award a contract for State Parks. The contract will be for the facilitation of the objectives described below.

#### **Contract Term**

The contract term is estimated to be in effect from the date of signature through December 31, 2025. Specific timelines for each objective are identified below.

#### **Estimated Contract Value**

The total contract value shall not exceed \$50,000.

#### **Requirements**

Bidder must be registered to do business in the State of Washington (holding a Universal Business Identifier (UBI)). If awarded the contract, the successful bidder must obtain a UBI number within 24 hours to avoid being considered non-responsive.

#### **Preferred Skills**

Experience in conducting recreational boating observational studies. Proficiency in data analysis and report generation. Familiarity with Washington State's boating environments. Capability to develop methodologies for the core study and parallel component.

#### **Project Overview**

The Washington State Parks Boating Program will conduct the 2025 Life Jacket Wear Rate Observation Study to evaluate the current life jacket usage rates among recreational boaters across Washington State. This study builds on previous studies conducted in 2010 and 2014, expanding the analysis to assess trends over time and the effectiveness of existing safety campaigns. Additionally, the study will include a parallel component focusing on the impact of life jacket loaner stations on wear rates as previously included in the 2014 study.

---

For reference, the State Parks 2014 Life Jacket Observational Study is attached to this solicitation as Exhibit B.

The 2023 USCG Life Jacket Wear Rate Observation Study can be found online here: <https://uscgboating.org/library/national-live-jacket-wear-study/2023-Life-Jacket-Wear-Rate-Report.pdf>

### **Core Study Objectives**

1. Assess the wear rate of life jackets among boaters using various types of vessels throughout Washington State.
2. Analyze trends in life jacket usage, considering demographic factors such as age, gender, and boating activity.
3. Compare the 2025 state data with state data from 2010 and 2014 to identify behavioral changes and the effectiveness of life jacket promotion efforts.
4. Compare the 2025 state data with USGS national data from 2023 to identify state VS national trends.
5. Investigate the influence of life jacket loaner stations on wear rates.

### **Methodology**

1. **Field Observations:** Conduct observations at selected sites across Washington, prioritizing those used in the 2010 and 2014 studies to maintain consistency and comparability. Site selection will focus on areas with high boating activity and diverse environmental conditions, ensuring a representative sample of boating behaviors.
2. **Observer Training:** Observers will undergo training based on the USCG 2023 Life Jacket Wear Rate Observation Study protocols. This training will ensure standardized data collection, emphasizing the consistent classification of life jacket use, boater demographics, and vessel types.
3. **Data Collection:** Observations will be scheduled during peak boating times over the summer of 2025, following the approach of previous studies to capture a comprehensive snapshot of life jacket usage.
4. **USCG Methodological Framework:** The study will follow the systematic approach used in the USCG study, with necessary adaptations to account for the unique boating environments in Washington State.
5. **Local Adaptation:** Adjustments will be made to accommodate specific local conditions, including the addition of new sites both with and without life jacket loaner stations, to assess their impact on wear rates.
6. **Data Analysis:** Statistical analyses will be conducted to evaluate life jacket usage patterns, with comparisons drawn against national trends to provide context and identify any deviations or unique findings in Washington State.
7. **Replicable Methodology:** The study's methodology will be designed for replication every 4-5 years, allowing for ongoing comparisons with data from 2010, 2014, and USCG/JSI studies.

### **Data Analysis and Reporting**

**Core Study:** Data will be analyzed to determine overall life jacket wear rates, with findings compiled into a comprehensive report. Special attention will be given to identifying patterns and making recommendations for future safety campaigns.

---

Parallel Component: A separate analysis will focus on the impact of life jacket loaner stations, with results included as a distinct section of the final report.

### **Objectives / Timeline**

**Objective 1:** *By June 1, 2025, finalize the life jacket use observational plan.*

Objective 1 Activities:

1. Meet with Washington State Parks Boating Program to finalize the draft plan.
2. Ensure the protocol and research methodology are reliable and align with USCG/JSI and past Washington State observer protocols.
3. Review and revise site selection based on the 2014 study observations for location.
4. Include the variable of life jacket loaner programs at selected sites.
5. Review and update the Training Guide.
6. Review and update the observational form and protocol.

Objective 1 Deliverables:

1. Deliverable: Final project scope and expectations, including the finalized research methodology and observational plan.
2. Deliverable: Copy of the research methodology, rationale, and plan.
3. Deliverable: New form and protocol.

**Objective 2:** *By July 1, 2025, implement observational training.*

Objective 2 Activities:

1. Finalize observational logistics and recruit observers. Observers will be recruited through local marine law enforcement patrols, US Power Squadrons, USCG Auxiliary, Fish and Wildlife Enforcement, and Safe Kids.
2. Train observers through web-based or in-person formats. Address all questions and develop a Q&A document for ongoing inquiries.

Objective 2 Deliverables:

1. Deliverable: Final logistics document and list of observers submitted.
2. Deliverable: Statement of training completion, list of trainees, training materials, and Q&A document.

**Objective 3:** *By October 1, 2025, complete all life jacket observations.*

Objective 3 Activities:

1. Conduct observations at approximately 32 sites, using locations primarily based on the 2014 study, with adjustments to increase the number observed at each site and to include more nonmotorized vessel. Ensure sites offer safe places for observers and a high volume and variety of vessels to observe. Collaborate with marine patrol, boating accident data, and the 2014 site list.

- 
2. Conduct observations. Each site will have at least two 90-minute observations over weekend days or holiday Mondays between July 1, 2025, and September 30, 2025. Two observers will work together during observations.
  3. Strategies will be implemented to mitigate risks such as adverse weather conditions during data collection. Contingency plans will be established to ensure data collection can proceed smoothly under various circumstances.

Objective 3 Deliverables:

1. Deliverable: List of sites and observers for each site.
2. Deliverable: Data sheets submitted, dates and times of observations, and list of observers.

**Objective 4:** *By November 30, 2025, complete data entry, analysis, and statistically significant data analysis. Note policy and education implications, and safety outreach recommendations.*

Objective 4 Activities:

1. Data-enter forms, analyze data, and compare findings with 2010, 2014, and JSI observations.
2. Prepare the report in consultation with Washington State Parks Boating Program.

Objective 4 Deliverables:

1. Deliverable: Data is entered, analyzed, and significance tests are completed.
2. Deliverable: Final report is submitted.
  - 2025 Report: A comprehensive analysis of 2025 data, including comparisons with previous years 2010 and 2014 WA state reports, National USCG life jacket wear rates and recommendations for future safety initiatives.
  - Parallel Report Component: A detailed report section exploring the correlation between life jacket loaner stations and wear rates.

### 1.3 Washington State Procurement Priorities & Preferences

State Parks will apply the following Washington State procurement priorities and preferences to this competitive solicitation which, as set forth in Section 5.3, will impact the evaluation of bids submitted.

**Mandatory Award to Small or Veteran-Owned Business:** As of April 1, 2023, State Parks is required to award competitively procured services contracts with an initial value less than \$150,000 to the highest-ranked responsive and responsible Small or Veteran-Owned Business, unless there was no responsive and responsible Proposal from a Small or Veteran-Owned Business, per [DES Policy DES-090-06](#), Supplier Diversity section.

Given that the contract is estimated to be less than \$150,000, State Parks intends to award a contract to the lowest responsive and responsible bid from small businesses (as defined in RCW 39.26.010(22)(a)) or veteran-owned businesses under RCW 43.60A.190, unless none of these businesses are deemed responsible and responsive to this solicitation.



---

All bidders must meet specified criteria and demonstrate their ability to fulfill contract requirements. The evaluation process will consider both the price and the bidder's capacity to fulfill the contract effectively and efficiently.

This approach not only supports small and veteran-owned businesses but also aligns with our commitment to supplier diversity and equitable business opportunities. By promoting competitive procurement and prioritizing these businesses, we are fostering a diverse and inclusive marketplace that benefits all involved parties.

**Certification:** State Parks, in accordance with Washington law, encourage small and diverse businesses to compete for and participate in state procurements as contractors and as subcontractors.

Include proof of certification issued by the Washington State Department of Veteran Affairs or self-certify as a small business through WEBS at the time of competition. You may also include proof of certification from the Washington State Office of Minority & Women's Business Enterprises (OMWBE). If you are a small business registered in Washington's Electronic Business Solution (WEBS), we will verify your registration to determine eligibility.

---

## **2 Deadlines, Prebid Conference, Questions And Procurement Schedule**

---

This section identifies important deadlines for this Competitive Solicitation, where to direct questions regarding the Competitive Solicitation, and the process for potential amendments or modifications to the Competitive Solicitation.

### **2.1 Communication Regarding this Competition**

All communication should be directed to the State Parks Contracts and Grants Program (CGP) via the Procurement Coordinator's email listed on the face page. Contacting other State Parks staff may result in disqualification. Only responses posted on WEBS are official; all other communications are unofficial and nonbinding. State Parks reserves the right to amend this solicitation.

### **2.2 Prebid Conference**

Bidders are invited to a virtual prebid conference via Microsoft Teams, where they can ask questions and request changes. Interested bidders must RSVP to [contracts@parks.wa.gov](mailto:contracts@parks.wa.gov) by the date specified in Section 2.5 – Procurement Schedule, with the bid identification number and 'RFP 325-475 RSVP' in the subject line. A meeting link will be sent the next day. The conference date and time are indicated in Section 2.5.

Attendance to the Prebid Conference is optional.

Attendees are asked to not display video and keep their microphones muted if not speaking. If the conference fails or you have additional questions, send them by 3 PM (PST) on the same day. Responses to all questions received will be posted on WEBS. State Parks is not responsible for technical issues or participation failures.

State Parks reserves the right to amend and modify this Competitive Solicitation.

### **2.3 Question and Answer Period**

Bidders may ask questions at any time, but responses must be posted on WEBS before the bid's due date to allow bidders to respond. Therefore, the final day for questions to receive a formal response is indicated in Section 2.5 – Procurement Schedule.

Send questions to [contracts@parks.wa.gov](mailto:contracts@parks.wa.gov) with the bid identification number and 'RFP 325-475 – Question' in the subject line. Only responses posted on WEBS are official; all other communications are unofficial and nonbinding.

### **2.4 Complaint Period**

Bidders should first attempt to address any concerns during the question and answer period. If a complaint is necessary, refer to Section 2.5 – Procurement Schedule for the final date of the Complaint Period. Complaints outside this period will not be considered. Send complaints to [contracts@parks.wa.gov](mailto:contracts@parks.wa.gov) with the bid identification number and 'RFP 325-475 Complaint' in the subject line. Failure to mark correctly may result in the complaint being missed. Responses to complaints will be posted on WEBS; only these responses are official.

Bidders must follow these procedures for complaints to be considered. Complaints must be in writing, sent to the Procurement Coordinator before the deadline, to the specified email address, and with the correct subject line. The complaint must state its basis and propose a remedy. Only complaints that fall into the categories below and stipulate an issue of fact shall be considered:

- The solicitation unnecessarily restricts competition.
- The solicitation evaluation or scoring is unfair or flawed; or
- The solicitation requirements are inadequate or insufficient to prepare a response.

## 2.5 Procurement Schedule

<b>Activity</b>	<b>Due Dates &amp; Times (all times are PST)</b>
RSVP Prebid Conference	<b>Wednesday, November 20, 2024 – 1pm</b> See Section 2.2 – Prebid Conference
Prebid Conference	<b>Friday, November 22, 2024 – 11am – 11.30am</b> See Section 2.2 – Prebid Conference
Question Period	<b>Monday, December 2, 2024 – 1pm</b> See Section 2.3 – Question and Answer Period
Answers Posted	<b>Wednesday, December 4, 2024</b> (anticipated but may take longer) All responses to questions received will be posted on WEBS. See Section 2.3 – Question and Answer Period
Complaint Period	<b>December 5 – December 10, 2024</b> See Section 2.4 – Complaint Period. Complaints received before or after the Complaint period will not be considered.
<b>Bid Due Date</b>	<b>Tuesday, December 17, 2024 – 1pm</b> See Section 4 - Responses – Required Content, Format, and Scoring, and Section 4.1 - Checklist of Required Submittals
Oral Presentations	The Oral Presentation criteria and instructions will be provided by email to the short-listed firms, if needed. (optional)
Announcement of Apparent Successful Bidder (ASB)	After the Bid Due Date (deadline to submit bid responses) and following the evaluation, the state will announce the Apparent Successful Bidder (ASB). See Section 7.1 – Announcement of Apparent Successful Bidder.
Debriefing of Bidders	Any bidder wanting a Debrief must request it within three (3) business days following the day of the Announcement of Apparent Successful Bidder (ASB). See Section 7.3 – Debriefing of Bidders
Protest	The debriefed Bidder wanting to submit a protest must submit a Protest within five business days following the day of the Debrief. See Section 7.4 - Protests

---

### **3 Special Terms**

---

This section outlines special terms for this competitive solicitation that bidders will need to review and adhere to in order to comply with the requirements.

#### **3.1 Advanced Payment Prohibition**

Payment is based on provided goods and services only, following proper documentation and invoicing. No payment will be made for non-designated goods or services. Per Washington's Constitution Article 8, Section 5, progress payments are allowed, but no payment will be made before work is completed, delivered, and accepted. This includes deposits and security deposits.

#### **3.2 Business Structure & Employees (Compliance with Law)**

State Parks may require proof that your firm is legally licensed and compliant with all business and employee-related laws, including taxes, licenses, and employee insurance, during bid evaluation, contract execution, or the contract's duration. State Parks may contact any necessary entity to validate compliance. Additionally, they may require information verifying your business structure and employment status. Failure to provide timely information may result in bid rejection or contract termination. Non-compliance with laws and regulations may also lead to bid rejection or contract termination. Information is available from state agencies such as the Department of Revenue, Labor and Industries, Secretary of State, and Employment Security Department.

#### **3.3 The Resulting Contract and its Terms and Conditions**

A sample contract is provided at the end of the competition document to help bidders understand State Parks' typical terms and conditions. Any resulting contract will include these terms and conditions. Bidders should review the sample, assess the risks and rewards, and bid accordingly. Selected bidders (Apparent Successful Bidders or ASB) often try to negotiate terms, but such negotiations will likely not be entertained. Bidders should consider all risks when forming their bid response.

Each Bidder's submission of its response confirms that Bidder's consent to these terms and conditions.

## 4 Responses - Required Content, Format, and Scoring

This section describes the information required from offerors in response to this competitive solicitation and outlines how bids will be scored. Additionally, bidders must review and adhere to the competitive solicitation requirements, including those detailed in the exhibits, which specify the information that must be provided for a bid to be considered responsive.

### 4.1 Checklist of Required Submittals

The following list in the table in this subsection identifies the content that must be included in each responsible submission (Bidder's response). Any response that does not contain all these items may be rejected as non-responsive. Each item is discussed in more depth in the sections following the table.

#	Submittal	Scoring Points and/or Low Price and/or Pass/Fail	For Reference: See Appendix or Section	Bidder Mark if Provided (failure to provide as instructed may result in bid rejection)
1	Bidder's Certifications (form provided) * signature required	pass/fail	Appendix A, Section 4.2 Section 9.1	
2	Bidder's Profile (form provided)	pass/fail	Appendix B, Section 4.3 Section 9.2	
3	Bid Price (form provided)	Up to 30 points	Appendix C, Section 4.4 Section 9.3	
4	Experience and Expertise (self-authored)	Up to 40 points	Section 4.5	
5	Approach - Work Plan and Project Schedule (self-authored)	Up to 30 points	Section 4.6	
6	References (form provided)	pass/fail	Appendix D, Section 4.7 Section 9.4	
7	Diverse Business Inclusion Plan – Subcontractors (form provided)	pass/fail *required if using subcontractors	Appendix E, Section 4.8 Section 9.5	

**The total scoring points available is 100, with a minimum of 60 points required for a bid to be considered responsive.** If a Washington Small Business or Certified Veteran-Owned Business does not meet the minimum points, the bid will be deemed non-responsive and rejected. The table above serves multiple purposes:

1. Specifies the submittals bidders must provide to State Parks in their bid response.
2. Acts as a checklist to ensure all required materials are included.
3. If State Parks does not provide a form, the bidder must "self-author" a response to fulfill the requirement.

The table also indicates whether submittals will be scored based on points, low price, or pass/fail and provides a courtesy reference linking the submittal to other sections of the document.

<b>General Evaluation Continuum</b>					
Bidder demonstrates renowned experience and/or the least or no risk, and/or ideal fit for what is being sought by State Parks  <b>(most points)</b>	Bidder demonstrates considerable experience, and/or some minor risk, and/or a close but not ideal fit for what is being sought by State Parks.	Bidder demonstrates solid experience, and/or mild risk, and/or fair fit for what is being sought by State Parks.	Bidder demonstrates adequate experience, and/or medium risk, and/or mediocre fit for what is being sought by State Parks.	Bidder demonstrates limited experience, and/or high risk, and/or poor fit for what is being sought by State Parks.  <b>(low points)</b>	Bidder demonstrates no experience, and/or grave risk, and/or a bad fit for what is being sought by State Parks  <b>(no points)</b>

**4.2 (Appendix A) – Bidder’s Certifications, Assurances, And Waiver**

A form is provided for this part of your bid response. See Appendix A – Bidder’s Certification, Assurances, and Waiver.

The certifications must be executed as written in Appendix A. Failure to execute the Appendix in its official form will result in the Bidder’s proposal being disqualified.

Appendix A – Bidder’s Certifications is evaluated on a pass/fail basis.

The certification must be signed and submitted by a duly authorized representative.

**4.3 (Appendix B) – Bidder’s Profile**

A form is provided for this part of your bid response. See Appendix B – Bidder’s Profile.

The Bidder’s Profile provides general information about the bidder and/or its corporate entity. It is important to fully read the Bidder’s Profile, as there may be additional pages that the bidder must self-author and attach, depending on the bidder’s response.

Appendix B – Bidder’s Profile must be substantively completed and is evaluated on a pass/fail basis.

**Note:** The Bidder’s Profile must be complete. Where there are choices, the bidder must check a box.

**4.4 (Appendix C) – Bid Price**

A form is provided for this part of your bid response. See Appendix C – Bid Price.

The award is made to the responsive and responsible bidder and who has the highest score and the lowest price. See also Section 1.3 Washington State Procurement Priorities and Preferences.

All costs should be rolled in, except for sales tax. The bidder's not-to-exceed amount must factor in all cost drivers such as travel, shipping, packaging, and material costs. Washington State government agencies do pay sales tax, but it should appear separately

---

on the invoice and not as part of the not-to-exceed amount on the Bid Price provided by the bidder.

Failure to identify all costs in accordance with the instructions in this Competitive Solicitation is sufficient grounds for disqualification.

**This part of the bid response is scored up to 30 points**, with a pro rata share for higher-cost bids. For example, if three bids are received (A: \$25, B: \$26.50, C: \$50):

- Bid A get 60 points ( $25/25 = 1.0 \times 60 \text{ points} = 60$ ),
- Bid B gets 56.60 points ( $25/26.50 = .943 \times 60 \text{ points} = 56.60$ ),
- Bid C gets 30 points ( $25/50 = .5 \times 60 \text{ points} = 30$ ).

**Cost Control:** A bid may be deemed non-responsive if it exceeds the average of all other bids by 20%.

**Inclusive Pricing:** Bidders must identify and include all cost elements in their pricing. If awarded a contract, the total price for the goods and/or services shall be the price submitted. Except as provided in the contract, there can be no additional costs of any kind.

**Credit Cards (P-Cards):** If awarded a contract, the total price for the goods and/or services shall be the same regardless of whether purchasers make payment by cash, credit card, or electronic payment. The bidder shall bear any processing or surcharge fees associated with the use of credit cards or electronic payment.

#### 4.5 Experience and Expertise

Bidder this part of your bid response is self-authored by you, no form is provided.

**Title this submittal section: 4.5 - Experience and Expertise.**

For the performance of these services, State Parks is looking for a contractor who:

- has experience in conducting recreational boating observational studies.
- Is able to reliably conduct field observations during the specified summer months.
- Is proficient in data analysis and report generation.
- Is familiar with Washington State's boating environments.
- Is capable of developing methodologies for the core study and parallel component.

In your submittal for this section, please describe how your proposal meets the above criteria, as well as any other experience related to the services of this solicitation.

**This part of the bid response is scored up to 40 points.**

#### 4.6 Approach - Work Plan and Project Schedule

Bidder this part of your bid response is self-authored by you, no form is provided.

- **Title this submittal section: 4.6 Approach - Work Plan and Project Schedule**

**Work Plan:** Include all project requirements and the proposed tasks, services, activities, etc. necessary to accomplish the scope of the project defined in this RFP. This section must contain sufficient detail to convey to members of the evaluation team the Proposer's approach to the project, knowledge of the subject, and skills necessary to successfully complete the project.

---

The Proposer may also present any creative approaches that might be appropriate and may provide any pertinent supporting documentation.

**Project Schedule:** Include a project schedule indicating when the elements of the work will be completed. Project schedule must ensure that any deliverables requested are met.

**This part of the bid response is scored up to 30 points.**

#### **4.7 (Appendix D) - References**

A form is provided for this part of your bid response. See Appendix D – References.

Bidder this part of your bid response requires you to submit reference from other parties (do not use Washington State Parks as a reference).

Bidder must provide at least three (3) recent references, for similar work.

References provided must include a current point of contact name, email address, and phone number.

**This part of the bid response is evaluated on a pass/fail basis.**

#### **4.8 (Appendix E) – Diverse Business Inclusion Plan – Subcontractors**

A form is provided for this part of your bid response. See Appendix E – Diverse Business Inclusion Plan – Subcontractors. This form outlines the inclusion plan for diverse business subcontractors pertaining to the Contract.

\* This form is **only** required if the bidder will be using subcontractors in the performance of this contract. If your response will not utilize subcontractors, you do not need to submit this form.

**This part of the bid response is evaluated on a pass/fail basis.**



---

## 5 Responses – Preparation, Submission Requirements and Preferences

---

This section identifies how to prepare and submit your bid for this solicitation. By submitting a bid in response to this solicitation, bidders acknowledge having read and understood the entire solicitation and accepting all information contained within.

### 5.1 Submission of Responses

Bids must be complete, legible, signed, and follow all instructions stated in the competitive solicitation document (including the appendices, and exhibits). Unless otherwise specified in writing, all documents included with an electronic bid should be submitted in pdf format. Where required to do so, bidders may sign using either a physical or electronic signature.

Bidder's electronic response must be emailed to the following address:

[BidBox@parks.wa.gov](mailto:BidBox@parks.wa.gov).

The email subject line should include the bid identification number and your company name (RFP 325-475 - Bid - ACME, Inc.). Ensure the email, including attachments, is less than 30MB (preferably under 25MB) Zipped files are not accepted. All responses and any accompanying documentation become the property of State Parks and will not be returned.

State Parks will send an automatic acknowledgment of bid receipt, through the BidBox email account. This acknowledgment does not determine the bid's responsiveness. If the bidder does not receive an acknowledgment within a reasonable time, it is the bidder's responsibility to contact State Parks directly for confirmation (see below).

**Verification:** Bidders are welcome to contact the State Parks Contracts and Grants Program team (CGP) to confirm that your bid response was received, however, this process works best if there's enough time between the date and time submitted and the bid's due date deadline. Send verification requests to:

[contracts@parks.wa.gov](mailto:contracts@parks.wa.gov)

The email subject line should include the bid identification number, and your company name (RFP 325-475 – Verification – ACME, Inc.)

**Caution:** We recommend you submit your bid response early as a safeguard against any technological slow-down or delays.

**\* Bids received after the deadline for any reason, no matter the cause and regardless of responsibility, will be rejected.**

### 5.2 Response Layout Requirements

The Bidder's response should be logically assembled so that the evaluators can easily understand what they are reading and relate what they are reading back to the competition document's requirement. Evaluators appreciate landmarks or references using the competition document's section numbers and section titles. One mistake that Bidders make is that they have a previously prepared statement or materials that don't precisely relate to the competition document's individual requirement (it wasn't tailored or designed for the requirement), or that the previously prepared statement (or material) is supposed to relate to two or more requirements of the competition document. That can be confusing and may result in a negative impact to the evaluation of the Bidder's bid response.

---

**Note:** If evaluators cannot easily identify the statement/material or cannot easily link it to the competition's section reference, requirement, or question the statement/material may be misunderstood, disregarded, or may negatively impact the evaluation of the response.

### 5.3 Washington State Procurement Priorities & Preference

The following Washington State procurement priorities and preferences apply to this Competitive Solicitation:

#### **Washington Small Businesses and/or Certified Veteran-Owned Businesses.**

In furtherance of Washington's business inclusion goals, State Parks will evaluate bids for best value and will provide a bid preference to any bidder who certifies.

- Washington Small Business. Applicable if the Bidder is a Washington Small Business as defined in RCW 39.26.010. To qualify as a Washington Small Business, Bidder must meet three (3) requirements:
  - Location - Bidder's principal office/place of business must be located in and identified as being in the State of Washington. A principal office or principal place of business is a firm's headquarters where business decisions are made and the location for the firm's books and records as well as the firm's senior management personnel.
  - Size - Bidder must be owned and operated independently from all other businesses and qualify as one of the following:
    - Bidder Qualifies as a Small Business – i.e.,
      - Bidder has fifty (50) or fewer employees; or
      - Bidder has an annual gross revenue of less than \$7,000,000 as reported on Bidder's federal income tax return or its return filed with the Washington State Department of Revenue over the previous three (3) consecutive years.
    - Bidder Qualifies as a mini business – i.e., Bidder has an annual gross revenue of less than \$3,000,000, but \$1,000,000 or more, as reported on Bidder's federal income tax return or its return filed with the Washington State Department of Revenue.
    - Bidder Qualifies as a Microbusiness – i.e., Bidder has an annual gross revenue of less than \$1,000,000 as reported on Bidder's federal income tax return or its return filed with the Washington State Department of Revenue.
  - WEBS Certification. Bidder must have certified its Washington Small Business status in Washington's Electronic Business Solution (WEBS).
- Certified Veteran-Owned Business. Bidder is a Certified Veteran-Owned Business under RCW 43.60A.190. To qualify as a Certified Veteran-Owned Business, Bidder must meet four (4) requirements:
  - 51% Ownership. Bidder must be at least fifty-one percent (51%) owned and controlled by:
    - (a) A veteran as defined as every person who at the time he or she seeks certification has received a discharge with an honorable characterization or received a discharge for medical reasons with an honorable record, where applicable, and who has served in at least one of the capacities listed in RCW 41.04.007;

- 
- (b) A person who is in receipt of disability compensation or pension from the department of veterans affairs; or
  - (c) An active or reserve member in any branch of the armed forces of the United States, including the national guard, coast guard, and armed forces reserves.
- Washington Incorporation/Location. Bidder must be either an entity that is incorporated in the state of Washington as a Washington domestic corporation or, if not incorporated, an entity whose principal place of business is located within the State of Washington.
  - WEBS Certification. Bidder must have certified its Veteran-Owned Business status in Washington's Electronic Business Solution (WEBS).
  - WDVA Certification. Bidder must have provided certification documentation to the Washington Department of Veterans' Affairs (WDVA) and be certified by WDVA and listed as such on WDVA's website (WDVA – Veteran-Owned Businesses)

---

## **6 Evaluation And Award**

---

This section identifies how bids for this Competitive Solicitation will be evaluated.

### **6.1 Bid Responsiveness**

All Responses received by the stated deadline will first be reviewed by the Procurement Coordinator to ensure that the Responses appear to contain the information required in this competition document. Only Bid Responses that meet the requirements will be forwarded for further substantive review. Any Response that does not appear to contain all of the required information or any Bidder who does not meet the mandatory qualifications will be rejected as non-responsive and will be removed from further evaluation. However, the Procurement Coordinator has the right to waive minor informalities, and/or seek clarification if confused provided that neither alters the content of the Response. A bidder's failure to provide requested clarification within five (5) business days may result in disqualification.

State Parks reserves the right to: (1) waive any informality (State Parks reserves the right to determine the actual level of Bidders' compliance with the requirements specified in this competition and to waive informalities in a bid). An informality is an immaterial variation from the exact requirements of the competition, having no effect or merely a minor or negligible effect on quality, quantity, or delivery of the supplies or performance of the services being procured.; (2) Reject any or all bids, or portions thereof; (3) Cancel the Competitive Solicitation and may re-solicit bids; and/or (4) Negotiate with the lowest responsive and responsible Bidder(s) (or Bidder with the most points) to determine if such bid can be improved. If, after a reasonable period of time, State Parks, in its sole judgement, cannot reach agreement on acceptable Contract terms with such bidder, State Parks may suspend negotiations and undertake negotiations with the next highest scored responsive, responsible bidder as determined by the evaluations.

### **6.2 Bidder Responsibility Analysis**

For responsive bids, State Parks must determine whether the bidder is a responsible bidder. In determining bidder responsibility, State Parks must consider the following statutory elements:

- a) The bidder's ability, capacity, and skill to perform the contract or provide the service required;
- b) The bidder's character, integrity, reputation, judgment, experience, and efficiency;
- c) Whether the bidder can perform the contract within the time specified;
- d) The bidder's performance quality pertaining to previous contracts or services;
- e) The bidder's compliance with laws relating to the contract or services;
- f) Whether, within the three-year period immediately preceding the date of the Competitive Solicitation, the bidder has been determined by a final and binding citation and notice of assessment issued by the Washington State Department of Labor and Industries or through a civil judgment entered by a court of limited or general jurisdiction to have willfully violated, as defined in RCW 49.48.082, any provision of chapter 49.46, 49.48, or 49.52 RCW; and
- g) Such other information as may be secured having a bearing on the decision to award the Contract.

See RCW 39.26.160(2)(a)-(g). In addition, State Parks may consider the following:

- 
- Best Value Criteria:
    - a) Whether the bid satisfies the needs of the state as specified in the solicitation documents;
    - b) Whether the bid encourages diverse contractor participation;
    - c) Whether the bid provides competitive pricing, economies, and efficiencies;
    - d) Whether the bid considers human health and environmental impacts;
    - e) Whether the bid appropriately weighs cost and non-cost considerations; and
    - f) Life-cycle cost.

See RCW 39.26.160(3)(a)-(f).

- Financial Information: State Parks may request financial statements, credit ratings, references, record of past performance, clarification of bidder's offer, on-site inspection of bidder's or subcontractor's facilities, or other information as necessary to determine bidder's capacity to perform and the enforceability of bidder's contractual commitments. Failure to respond to these requests may result in a bid being rejected as non-responsive.
- References: State Parks reserves the right to use references to confirm satisfactory customer service, performance, satisfaction with service/product, knowledge of products/service/industry and timeliness. Any negative or unsatisfactory reference can be reason for rejecting a bidder as non-responsible.

#### **6.2.1 Rejected Bids/Bidders & Rejection Notification & Rejection Response**

This Rejection Response process is not governed by Washington's Administrative Procedures Act (APA), RCW 34.05, nor does it confer any additional rights above and beyond what the Bidder already enjoys as a taxpayer. The purpose of this process is to allow State Parks to correct evaluation process errors and problems before a contract is executed.

State Parks will perform a preliminary evaluation which is largely procedural. See Section 6.7.1 - Preliminary Evaluation (procedural) and all of this section's subparts.

If State Parks determines that a bid or Bidder must be rejected under 6.7.1 and/or subparts, State Parks will send a rejection notification to the email address provided by the Bidder in the Bidder's Profile form (Appendix B). State Parks bears no responsibility for any issue or technological issue preventing actual receipt of the notification to the rejected Bidder.

**Two Business-day Response Period:** The Bidder may refute the rejection. The rejected Bidder must respond to the rejection within two (2) business-days following the day of rejection notification.

- The Bidder's Rejection Response must be sent to [contracts@parks.wa.gov](mailto:contracts@parks.wa.gov).
- Subject line must include the bid's identification number and 'Rejection'. See the first page or footer for the bid's identification number (RFP 325-475 Rejection).
- The Bidder must explain how and why State Parks erred in rejecting the Bidder's bid under Section 6.7.1 - Preliminary Evaluation (Procedural).

State Parks will consider the rejected Bidder's response, and if in State Parks' opinion, it determines error on our part, the bid will be moved forward to further evaluation. If State Parks determines it did not err, the bid will not be moved forward for evaluation.

---

The process detailed in this section does not supersede or displace the debrief process or protest process. A Bidder may, after the Announcement of Apparent Successful Bidder, request a Debrief session, which is a prerequisite for a Protest. See Section 7.3 – Debriefing of Bidders, and Section 7.4 – Protests for expanded details about the process and what State Parks will recognize as legitimate.

### **6.3 General Evaluation Provisions**

The evaluation process is designed to award a contract to the Bidder with the best value based on the selected evaluation criteria.

Evaluations of subjective material will likely be conducted by the customer program requiring the goods/services or an evaluation team. State Parks has sole discretion over the selection of evaluators and will make such selections based on each potential evaluator's availability, knowledge, skills, and experience with the subject matter. Evaluator(s) will independently grade and score or consensus score the Bidder's material based on their own independent judgment, and in accordance with the format noted herein for each respective requirement. Evaluator(s) will only evaluate the material contained in the Responses and will not incorporate outside material into their determinations. The evaluator(s) has sole discretion over his or her final scores.

Bidders should take every precaution to assure that all answers are clear, complete, and directly responsive to each specific requirement.

### **6.4 Evaluation of Completion by Date**

State Parks reserves the right to require that the Apparent Successful Bidder (ASB) provide, within three (3) business days after request, satisfactory evidence of ability to perform the services required according to the timeframe required by this solicitation. Failure to provide satisfactory evidence may be grounds for submittal rejection.

### **6.5 Evaluation Steps**

#### **6.5.1 Preliminary Evaluation (Procedural)**

- a) Did the bid response arrive by the due date (deadline) to the proper location? Pass/Fail.
- b) Did the Bidder, on behalf of the Bidder's Firm, appear to bind the company to the commitment of the competition (manifestation of assent)? Pass/Fail. Acceptable manifestations of assent may include:
  - Is the bid signed by an individual (a person and NOT a group or team) electronic, with a wet-ink signature albeit provided as a PDF scan, photo, or other similar visual copy representation?
- c) Did the Bidder appear to provide and complete the information requested? Pass/Fail.
- d) Does the Bidder appear to accept the State Parks terms and conditions without reservation? Pass/Fail.
- e) Does the Bidder, under penalty of perjury, certify it is not a Wage violator (see Certification - Wage Theft Prevention)? Pass/Fail.
- f) Does the Bidder, under penalty of perjury, certify it supports worker's rights (see Certification - Supporting Workers' Rights)? Pass/Fail.
- g) If submittals were required, were the submittals provided and do they appear to be complete so that the bid could be compared to other conforming bids? Pass/Fail.
- h) If any bid is rejected at this stage, send a Rejection Letter to the Bidder's email address provided by the Bidder in Appendix B – Bidder's Profile. See also Section 6.2.1 –

---

Rejected Bids/Bidders & Rejection Notification & Rejection Response. Allow the Rejection process to run its course and then for all remaining responsive bids, advance the bid(s) to Section 6.5.2 – Substantive Evaluation: Phase 1.

### **6.5.2 Substantive Evaluation: Phase 1**

- a) Preferences and penalties: Preferences and penalties that are required by law, rule, or competition document will be applied to bid pricing. Preference reduces the Bidder's stated price by the amount of the preference and is an advantage to the Bidder. A penalty increases the Bidder's stated price by the amount of the penalty and is a disadvantage to the Bidder. *Preferences and penalties are applied to the pricing for evaluation purposes only but are not applied for purchasing purposes if awarded the contract.*
  - Determine Reciprocity under [RCW 39.26.271](#), [WAC 200-300-075](#), [DES Reciprocity Map \(list\)](#). Determine the business address from which the bid was submitted. Check the DES Reciprocity Map (list) to determine, for evaluation purposes only, if the bid's pricing must be increased or rejected.
  - Determine Polychlorinated Biphenyls (PCB)
- b) If submittals were required, were the submittals provided and were they materially complete so that the material aspects of the bid response can be compared to other conforming bids? Pass/Fail. If a points methodology is being used instead of a pass/fail methodology, then determine the points.
- c) Determine the low bid; use subtotal value. If a points methodology is being used instead of low bid methodology, then determine the points.
- d) References: If not waived by State Parks, do the references reflect good customer service and good product quality, and no meaningful apprehension from using this Firm in the future? Pass /Fail. If a points methodology is being used instead of a pass/fail methodology, waiver is not allowed, State Parks must determine the points.
- e) Responsibility of the Bidder: In determining the responsibility of the Bidder, State Parks may also consider: [RCW 39.26.160 Bid awards—Considerations—Requirements and criteria to be set forth—Negotiations—Use of enterprise vendor registration and bid notification system](#). If considered, then Pass/Fail.
- f) Upon determining the lowest priced responsive and responsible Bidder (or responsive and responsible Bidder with the most points), perform the Announcement of ASB unless the Substantive Evaluation: Phase 2 (optional) is used.

### **6.5.3 Substantive Evaluation: Phase 2 (Optional)**

- a) Following Phase 1, if State Parks so chooses, the lowest priced responsive and responsible Bidder (or responsive and responsible Bidder with the most points) may be required to appear in some form and/or present additional materials to validate to the State Parks that the services or items offered meets the State Parks' needs and meets all other competition terms & conditions. If State Parks requests materials it deems necessary to validate the services or item offered, the materials must be provided within five (5) business days or face possible elimination. The Bidder will not be allowed to materially change their bid response and the examination will be limited to the validation of the item and/or services offered. If State Parks, in its sole discretion, determines that the Bidder's bid does not meet the State Parks needs and/or other competition terms & conditions, the Bidder's bid response will be rejected and the next lowest responsive and responsible (or responsive and responsible Bidder with the most points) bid response

may be considered. This process may repeat itself until an Apparent Successful Bidder (ASB) is determined or the competition is cancelled.

- b) Upon determining the lowest priced responsive and responsible Bidder (or responsive and responsible Bidder with the most points), perform the Announcement of ASB.

**6.6 Oral Presentation (optional)**

Oral presentations, if deemed necessary by State Parks, may be used to select the winning response. State Parks reserves the right, at its sole discretion, to invite the top-scoring firms from the written evaluation to participate in an oral presentation. The top-scoring firms will be contacted to schedule a date, time, and location for the presentation. All key personnel must participate in the oral presentation. The Procurement Coordinator will reach out to the bidder(s) to arrange a date and time and will provide further instructions. Any commitments made by the Contractor during the oral presentation will be considered binding.

There will be a maximum of 100 points awarded based on bidder’s demonstration. All points will be cumulative. The oral presentation will determine the apparently successful bidder.

**6.7 ORAL PRESENTATIONS EVALUATION CRITERIA (OPTIONAL)**

Oral Presentation Evaluation Criteria	Maximum Possible Point Total
Organization: - Management Plan	25 points
Project Management: - Project Scheduling	25 points
Expertise - Understanding of this project	25 Points
Experience - Relevant Past Projects	25 Points
<b>TOTAL:</b>	<b>100 Points</b>

Points for Oral Presentation will be determined according to the following guidelines, and weighted appropriately:

Bidder demonstrates renowned experience (5 points)	Bidder demonstrates considerable experience (4 points)	Bidder demonstrates solid experience (3 points)	Bidder demonstrates adequate experience (2 points)	Bidder demonstrates limited experience (1 points)	Bidder demonstrates no experience (0 points)
--	--	---	--	---	--

**6.8 Selection of Apparent Successful Bidder**

Note: The Bidder meeting all responsive criteria and having the lowest costs (or, highest final cumulative score) will be selected as the Apparent Successful Bidder (ASB).

State Parks will notify the Apparent Successful Bidder, and the non-successful Bidders, via email to the address provided in the Bidder’s Profile – Appendix B - Primary Contact Person for Questions/Contract Negotiations.



---

## 7 Announcement of ASB, Public Disclosure, Debrief, and Protests

---

This section provides information about the announcement of the apparent successful bidder, public disclosure, and details the applicable requirements for complaints, debriefs, and protests.

### 7.1 Announcement of Apparent Successful Bidder (ASB)

Following the bid evaluation, State Parks will announce to all bidders the Apparent Successful Bidder (ASB) via email to the address provided in the Bidder's Profile - Appendix B. The Announcement of ASB starts a clock, and it is the bidder's responsibility to provide a working email. State Parks accepts no responsibility for the bidder's actual receipt of the Announcement of ASB.

The Announcement of Apparent Successful Bidder means State Parks currently believes the ASB is the lowest cost responsive and responsible bidder (or the bidder with the most points), but it is not a guarantee of a contract, State Parks Purchase Order, or purchase. State Parks reserves the right to reevaluate the ASB's bid to confirm it is as responsive, responsible, and successful as initially thought. ASBs should not commit funds, resources, or effort before receiving an executed contract and/or State Parks Purchase Order. Any premature action taken before contract execution is at the bidder's own risk and may result in no contract being executed if it causes disruption for State Parks.

Following the announcement of the ASB, bidders may request a debrief conference. The bidder will have a short period to request the debrief conference, which is a mandatory prerequisite for any bidder desiring to protest the award.

### 7.2 Procurement Records Disclosure

Procurement records for this competition cannot be released or viewed until after the Announcement of Apparent Successful Bidder (ASB); see Section 7.1 – Announcement of Apparent Successful Bidder. A Bidder may request copies of the competition records, including the solicitation and evaluation documents, or may inspect the competition records.

State Parks has a [Public Records Officer](#) and webpage for this purpose. If you'd like copies of these records, please click on the link(s) below for agency instructions.

- [Public Records Request Info](#)
- [Public Records Center](#)

When completing your request, it is helpful to identify it clearly to avoid delays. The email subject line should include the bid identification number and project name.

### 7.3 Debriefing of Bidders

Following the Announcement of Apparent Successful Bidder, an unsuccessful bidder may request a debriefing conference. The request for a debriefing conference must be received by the Procurement Coordinator within three (3) business days following the day of the Announcement of Apparent Successful Bidder. State Parks will then schedule a debriefing conference to review the bidder's bid (not other bids).

#### 7.3.1 How to Request a Debrief Conference

Requests for debriefs should be addressed to the Procurement Coordinator via email to [contracts@parks.wa.gov](mailto:contracts@parks.wa.gov). The email's subject line must include the competition's number and the word "Debrief" (RFP 325-475 Debrief). Failure to mark the email as instructed may result in the debrief being overlooked or misunderstood.

---

### **7.3.2 Debrief Meeting, Discussion, and Delay**

Discussion will be limited to critiquing the requesting bidder's response. Comparisons with other responses or evaluations will not be allowed. Debriefing conferences, scheduled for a maximum of 30 minutes, may be conducted in person, via teleconference, or by phone. State Parks intends to hold all debriefings within a few days of the Announcement of Apparent Successful Bidder. The requesting bidder must have a representative available if they are unavailable. Bidders not available for the scheduled debriefing forgo their opportunity for debriefing and filing a protest (see section titled Protests).

### **7.3.3 Debrief Is a Prerequisite for Protest**

Attending a debriefing conference is a prerequisite to protesting the competition.

## **7.4 Protest**

### **7.4.1 General:**

This protest process is not governed by Washington's Administrative Procedures Act (APA), RCW 34.05, and does not confer any additional rights beyond those the bidder already has as a taxpayer. The purpose of this process is to allow State Parks to correct evaluation process errors and problems before a contract is executed.

Only a bidder who has participated in a debriefing conference may file a protest regarding this competition. The bidder must strictly adhere to the protest process outlined herein; failure to do so may result in a summary determination that the protest is without merit, without an opportunity to cure.

### **7.4.2 Form and Content**

All protests must:

- Be in writing.
- State and clearly articulate the grounds for the protest (see Section 7.4.3 – Content Limitations and 7.4.5 – Grounds Which May Be Protested) with specific facts and complete statements of the action(s) being protested.
- Include a description of the relief or corrective action being requested.
- be addressed to the Procurement Coordinator.

### **7.4.3 Content Limitations**

State Parks does not currently mandate any page limitation. However, the protest must be clearly articulated, succinct, organized, logical, and professional.

State Parks will summarily reject protests that:

- fail to state and clearly articulate at least one of the three grounds provided in Section 7.4.5 – Grounds Which May Be Protested;
- contain rants, attacks, and/or disparaging or abusive remarks;
- include multiple attachments or references to material (document dumping, document overload); or,
- appear to require the reader to weigh through voluminous amounts of material to verify the argument being made or piece together voluminous amounts of material to decipher the argument being made.

---

#### **7.4.4 Submission of Protests**

All protests must be submitted within five (5) business days after the day of the debriefing conference. Bidders must send all protests to [contracts@parks.wa.gov](mailto:contracts@parks.wa.gov). The email's subject line must include the competition's number and the word "Protest" (RFP 325-475 - Protest). Failure to mark the email as instructed may result in the protest being overlooked or misunderstood and not considered. Include the name of the protesting bidder, mailing address, phone number, and the name of the individual responsible for the submission of the protest.

#### **7.4.5 Grounds Which may be Protested**

- Conflict of interest on the part of State Parks staff.
- Errors in computing the score.
- Non-compliance with procedures described in the procurement document.

Protests will be rejected as without merit if they do not clearly and convincingly meet one of the grounds above and/or seems to address issues such as:

- An evaluator's professional judgment on the quality of a response, or
- State Parks' assessment of its own and/or other agencies' needs or requirements, or,
- Issues, concerns, or requests for changes that could have been addressed during the question-and-answer period, complaint period, or by a bidder rejected under Section 6.2.1 who failed to use the rejection response period timely.

#### **7.4.6 Manager Assignment and Review**

Upon receipt of a protest that meets the requirements described herein, a protest review will be held by State Parks. State Parks will assign a manager who was not involved in the procurement. The manager is responsible for reviewing and investigating the Bidder's written protest and may meet with agency staff or the agency program that was involved in the competition. The manager may consider the record and all reasonably available facts and will issue a protest determination in writing within fifteen (15) business days from receipt of the protest. If additional time is needed, the manager will notify the protesting party of the need for additional time within 15 business days from receipt of the protest.

If the protest affects another Bidder, State Parks may share the protest with them and invite their input.

Standard of Review: The Bidder must clearly and convincingly demonstrate that State Parks erred.

#### **7.4.7 Protest Determinations and Findings**

The Manager's protest determination may:

- Find the protest lacking in merit and reject the protest;
- Find only technical or harmless errors in State Parks' acquisition process and determine State Parks to be in substantial compliance and reject the protest; or
- Find merit in the protest and provide State Parks options which may include:
  - Correcting the errors and re-evaluating all responses;
  - Canceling the competition and possibly for a new competition to take place; or
  - Making other findings and determining other courses of action as appropriate.

---

If State Parks rejects the protest, State Parks will enter into a contract with the Apparent Successful Bidder no sooner than two business days after issuance of the protest determination by email to the protesting party at the email address indicated on the party's bid documents. For the purposes of timing, the date the protest determination is sent to the protesting party shall not count.

#### **7.4.8 Agency Decision is Final**

The Manager's protest determination constitutes the agency's final decision regarding the protest. If the protesting party disagrees with the protest determination, the Bidder may seek judicial relief in the Washington Superior Court for Thurston County within 2 business days of the issuance of the protest determination.

---

## **8 Additional General Provisions for all Bidders**

---

This section provides additional information regarding doing business with the State of Washington, including State Parks' efforts to enable Washington's small, diverse, and veteran-owned businesses to compete for and participate in state procurements for goods/services.

### **8.1 Announcement and Special Information**

By responding to this competition document, a Bidder acknowledges they have read and understand the entire competition and accepts all information contained within the competition document without modification.

### **8.2 Contracting with Current or Former State Employees**

Specific restrictions apply to contracting with current or former state employees pursuant to chapter 42.52 of the Revised Code of Washington (RCW). Those restrictions also apply to any Bidder submitting a Response under this competition who has hired a former state employee. Bidders should familiarize themselves with the requirements prior to submitting a Response that includes current or former state employees.

### **8.3 Amendments to the Competition**

State Parks reserves the right to revise this competition. All changes will be made by written competition amendments posted on WEBS and will become part of the competition. In case of conflicts, the most recent document controls. Amendments will consider the overall timeline, and State Parks will determine if extensions are needed. Bidders may only rely on the competition and amendments posted on WEBS. Any other communication, verbal or written, is nonbinding on State Parks.

### **8.4 Responsiveness of Bidder's Response**

Each bidder is notified that failure to comply with any part of the solicitation may result in their response being rejected as non-responsive. Rejected responses will not be further evaluated. State Parks will not be liable for any errors or omissions in the bidder's response. Bidders cannot alter their response after the submission deadline.

It is the bidder's responsibility to read, understand, and follow all instructions in the competition documents and any amendments. If a bidder does not fully understand any requirement, they should submit an inquiry to the Procurement Coordinator (see Section 2.3 – Questions and Answer Period). Failure to comply with any solicitation requirement may result in the response being rejected as non-responsive. State Parks reserves the right to waive any minor irregularity in a response but is not required to do so.

### **8.5 Clarity and Clarifications**

State Parks will make the sole determination of clarity and completeness of the responses. No response may be altered or amended after the submission deadline; however, State Parks reserves the right to contact a Bidder for clarification of content if necessary.

**Note:** This clarification process is only used to clarify information that was contained within the response; it is not a means of providing or incorporating new information that was otherwise not initially included. Evaluators have no obligation to seek or request clarification; they may evaluate the response as provided.

### **8.6 Cost of Response Preparation**

State Parks will not reimburse Bidders for any costs associated with preparing or presenting a response to this competition.

---

State Parks will not be liable for any costs incurred by the Bidder in preparation or presentation of a responsive response to this competition.

State Parks will not pay for any costs accrued prior to a mutually executed contract resulting from this competition.

#### **8.7 Ownership Of Responses**

All responses and materials submitted in response to this competition document become the property of State Parks. State Parks has the right to use information or adaptations of information that is presented in a response.

#### **8.8 Final Selection & No Obligation**

State Parks reserves the right, at its sole discretion, to reject all responses without penalty and not to issue a contract as a result of this solicitation. State Parks further reserves the right to cancel or reissue this competition prior to execution of a contract, if it is in the best interest of State Parks to do so, in its sole discretion.

#### **8.9 Incorporation of Response in Contract**

The Bidder's response, including all promises, warranties, commitments, and representations made in the successful response, are binding and shall be incorporated by reference into State Parks' contract with the Bidder.

#### **8.10 Statewide Vendor Payment Registration**

Bidders are urged to be registered in the Statewide Vendor Payment system, prior to submitting a request for payment under this contract. The Washington State Office of Financial Management (OFM) maintains a central Bidder registration file for Washington State agencies to process Bidder payments.

To obtain registration materials go to the Statewide Vendor Payee Services website at <https://ofm.wa.gov/it-systems/statewide-vendorpayee-services>. The registration form has two parts. Part 1 is the information required to meet the above registration conditions. Part 2 allows State Parks (and other state agencies) to pay invoices electronically with direct deposit. This is the most efficient method of payment, and vendors are encouraged to sign up.

#### **8.11 WEBS Registration**

Individuals and firms interested in state contracting opportunities with the awarding agency or any state agency should register for competitive solicitation notices at the Washington Electronic Business Solution (WEBS) [WEBS Registration](#).

**Note:** There is no cost to register on WEBS.

#### **8.12 Polychlorinated Biphenyls (PCB's) Notice**

Polychlorinated biphenyls, commonly known as PCB's, have adverse effects on human health and the environment. Accordingly, the State of Washington, through its procurements of goods/services, is trying to minimize the purchase of products with PCB's and to incentivize its contractual vendors to sell products and products-in-packaging without PCB's.

#### **8.13 Small and Diverse Business**

State Parks, in accordance with Washington law, encourage small and diverse businesses to compete for and participate in state procurements as contractors and as subcontractors to awarded bidders. See, e.g., [RCW 39.19](#) (OMWBE certified businesses); [RCW 43.60A.200](#) (WDVA certified veteran-owned businesses); and [RCW 39.26.005](#)

---

(Washington small businesses). In support of the state's economic goals and to support a diverse supplier pool, State Parks has established the following voluntary numerical goals for State Parks' Competitive Solicitations:

- Ten percent (10%) Minority-Owned Businesses certified by the Washington State Office of Minority and Women's Business Enterprises (OMWBE);
- Six percent (6%) Women-Owned Businesses certified by the Washington State Office of Minority and Women's Business Enterprises (OMWBE);
- Five percent (5%) Veteran-Owned Businesses certified by the Washington State Department of Veterans Affairs (WDVA); and
- Twenty-Five percent (25%) Washington Small Businesses, five percent (5%) of which are microbusinesses or mini businesses as defined in RCW 39.26.010(16) and (17).

Achievement of these goals is encouraged whether directly or through subcontractors.

- OMWBE Certification. Bidders may contact the Washington State Office of Minority and Women's Business Enterprises (OMWBE) regarding information on minority-owned and women-owned certified firms, state and federal certification programs, or to become certified. OMWBE can be reached here: [Office of Minority and Women's Business Enterprises](#). OMWBE-certified firms may provide their certification information on Appendix B – Bidder's Profile.
- WDVA Certification. Bidders may contact the Washington State Department of Veterans Affairs (WDVA) for information regarding certified veteran-owned businesses here: [Home | WDVA](#). The qualification requirements to be a certified veteran-owned business are set forth in 5.3 Washington State Procurement Priorities & Preference.
- Washington Small Businesses. Bidders may contact State Parks about small and diverse business inclusion and qualification as a Washington Small Business. If you qualify as a Washington Small Business, you may self-identify as such in WEBS. The qualification requirements to self-certify as a Washington Small Business are set forth in 5.3 Washington State Procurement Priorities & Preference.

#### **8.14 Access Equity Contract Reporting**

Bidders who are awarded a contract resultant from this solicitation and who utilize subcontractors to perform such contract must, as a condition of contract award, register and report, as contractor, through Access Equity, Washington's secure online business diversity vendor management system (B2GNow), which is managed by Washington's Office of Minority and Women's Business Enterprises (OMWBE). Accordingly, please note:

- Regardless of whether Contractor previously has registered with B2GNow for any public entity, Contractor must verify that Access Equity has current information.
- During the contract term, Contractor shall report monthly through Access Equity any payments to subcontractors pertaining to the contract. Such reporting shall include total payment in dollars made to subcontractors, payment dates, and any additional information required to verify payment to subcontractors.
- Subcontractors must utilize Access Equity to verify such payment information as reported by Contractor.
- Information and online training regarding the use of Access Equity are available at OMWBE's website: <https://omwbe.wa.gov/>.

---

### **8.15 Public Disclosure & Waiver of Proprietary Information**

- See Section 7.2 Public Records Disclosure.
- See Appendix A – Bidder’s Certification, Assurances, and Waiver, at subsection S - Bidder’s Waiver and Release of Information, Public Disclosure is Authorized and Not Restricted.

### **8.16 Civil Rights Compliance**

The Director of State Parks, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all Bidders will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of the owner’s race, color, national origin, sex, age, disability, income-level, or LEP in consideration for an award. State Parks will also affirmatively ensure that any contract entered into pursuant to this solicitation will require full incorporation of these rights in relation to all employees, personnel, and agents of the Bidder.



---

## **9 APPENDICES AND EXHIBITS**

---

### **All appendices noted below must be included as part of the bidder's response**

- 9.1 - Appendix A: Bidder's Certifications, Assurances, & Waiver - sign and return all pages
- 9.2 - Appendix B: Bidder's Profile - return all pages
- 9.3 - Appendix C: Bid Price - return all pages
- Experience and Expertise (per section 4.5) - self-authored & return
- Approach - Work Plan and Project Schedule (per section 4.6) - self-authored & return
- 9.4 - Appendix D: References - return all pages
- 9.5 - Appendix E: Diverse Business Inclusion Plan-Subcontractors - return all pages

### **Exhibits (attached as separate documents)**

- 9.6 - Exhibit A: Sample Contract & General Contract Terms and Conditions
- 9.7 – Exhibit B: State Parks 2014 Life Jacket Observational Study

**9.1 (Appendix A) – Bidder’s Certifications, Assurances, and Waiver**

Bidder, through the duly authorized undersigned, makes this certification as a required element of submitting a responsive bid. Bidder certifies, to the best of its knowledge and belief that the following are true, complete, correct, and made in good faith:

- a) I/My Firm make the following certifications and assurances as a required element of the proposal (bid response) to which it is attached, understanding that the truthfulness of the facts affirmed here and the continuing compliance with these requirements are conditions precedent to the award or continuation of the related contract(s):
- b) Bidder certifies that Bidder has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this Competitive Solicitation. Bidder further certifies that Bidder’s bid prices have been arrived at independently, without engaging in collusion, bid rigging, or any other illegal activity, and without for the purpose of restricting competition any consultation, communication, or agreement with any other bidder or competitor relating to (a) those prices, (b) the intention to submit a bid, or (c) the methods or factors used to calculate the prices offered. Bidder further certifies that Bidder has not been and will not knowingly disclose its bid prices, directly or indirectly, to any other bidder or competitor before award of a Contract, unless otherwise required by law. Bidder further certifies that Bidder has made no attempt and shall not make any attempt to induce any other person or firm to submit or not to submit a bid for the purpose of restricting competition. Bidder, however, freely may join with other persons or organizations for the purpose of presenting a joint bid. Whether done directly or indirectly, communicating bid information with other bidders, collusion, or anti-competitive actions among bidders are prohibited. If there is evidence of such communication, collusion, or anti-competitive activities among bidders, State Parks reserves the right to disqualify such bidders
- c) I/we declare that all answers and statements made in the proposal are true and correct.
- d) The prices and/or cost data have been determined independently, without consultation, communication, or agreement with others for the purpose of restricting competition. However, I/we may freely join with other persons or organizations for the purpose of presenting a single proposal.
- e) The attached proposal is a firm offer for a period of 90 days following receipt, and it may be accepted by Washington State Parks and Recreation Commission (State Parks) without further negotiation (except where obviously required by lack of certainty in key terms) at any time within the 90-day period.
- f) In preparing this proposal, I/My Firm have not been assisted by any current or former employee of the state of Washington whose duties relate (or did relate) to this proposal or prospective contract, and who was assisting in other than his or her official, public capacity.
- g) I/My Firm understand that State Parks will not reimburse me/my Firm for any costs incurred in the preparation of this proposal. All proposals become the property of State Parks, and I/My Firm claim no proprietary right to the ideas, writings, items, or samples.
- h) Unless otherwise required by law, the prices and/or cost data that have been submitted have not been knowingly disclosed by the Bidder and will not knowingly be disclosed by him/her prior to opening, directly or indirectly to any other Proposer or to any competitor.
- i) I/My Firm agree that submission of the attached proposal constitutes acceptance of the solicitation contents and the attached sample contract and general terms and conditions (if any), and any other instructions, Terms & Conditions, AND competition amendments to the same. Further:

1. Alterations to State Parks Documents: I/My Firm understand and agree that I/My Firm shall not and has not altered or deviated from the original competition and any follow-on competition amendments and if my/my Firm's bid response received by State Parks materially alters or deviates from the competition or competition amendments (if any) then the bid response may be disqualified. Whether the alteration is noticed or not noticed by State Parks, any resulting contract (including any type of order placement) shall continue with the altered portions or deviations being ignored in favor of the State Parks official language (original competition and any follow-on competition amendments) as posted on the Washington Electronic Business Solutions (WEBS) which acts as the system of record for this competition. The awarded Contractor understands, agrees, and accepts this provision and shall hold harmless and save harmless the State Parks.
  2. Unrequested Supplemental Materials in Bidders Bid Response: I/My Firm understands and agrees that I/My Firm shall not and has not supplemented my/my Firm's Bid Response with unrequested materials. Whether the unrequested material is noticed or not noticed by State Parks, any resulting contract (including any type of order placement) shall continue with the unrequested material being ignored in favor of the State Parks official language. The awarded Contractor understands, agrees, and accepts this provision and shall hold harmless and save harmless the State Parks.
- j) No attempt has been made or will be made by the Bidder to induce any other person or firm to submit or not to submit a proposal for the purpose of restricting competition.
  - k) I/My Firm grant State Parks the right to contact references, systems, sources, and others, who may have pertinent information regarding the Bidder's prior experience and ability to perform the services contemplated in this procurement.
  - l) If any staff member(s) who will perform work on this contract has retired from the State of Washington under the provisions of the 2008 Early Retirement Factors legislation, his/her name(s) is noted on a separately attached page.
  - m) Bidder (including Bidder's officers) certifies Bidder has not, within the three (3) year period preceding the date of this Competitive Solicitation, been convicted or had a civil judgment rendered against Bidder for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a governmental contract; violation of any federal or state antitrust statute; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property. Bidder further certifies that it is not presently indicted or otherwise criminally or civilly charged by a governmental entity with commission of any of the offenses enumerated in this paragraph.
  - n) Bidder certifies Compliance with Statutory Nondiscrimination Clauses for State Contracts. During the term of an awarded Contract, Bidder, including any subcontractor, shall not discriminate on the bases enumerated at RCW 49.60.530(3). Bidder, including any subcontractor, also shall give written notice of this nondiscrimination requirement to any labor organizations with which Bidder, or subcontractor, has a collective bargaining or other agreement. In addition, Bidder, including any subcontractor, shall cooperate with any Washington state agency investigation regarding any allegation that Bidder, including any subcontractor, engaged in prohibited discrimination set forth in RCW 49.60.530(3).
  - o) Bidder complies with all applicable requirements regarding civil rights. Such requirements prohibit discrimination against individuals based on their status as protected veterans or individuals with disabilities and prohibit discrimination against all individuals based on their race, color, religion, sex, sexual orientation, gender identity, or national origin.
  - p) Bidder Certifies no Termination for Default or Cause. Bidder has not, within the three (3) year period preceding the date of this Competitive Solicitation, had one (1) or more federal, state, or local governmental contracts terminated for cause or default.

- q) Bidder certifies, Taxes Paid. Except as validly contested, Bidder is not delinquent and has paid or has arranged for payment of all taxes due to the State of Washington and has filed all required returns and reports as applicable.
- r) Bidder certifies, Financially Solvent. Bidder is financially stable and solvent, has adequate cash reserves to meet all financial obligations, has not commenced bankruptcy proceedings voluntarily or otherwise, and is not subject to any judgments, liens, or encumbrances of any kind affecting title to any Goods or Services that are the subject of this Competitive Solicitation.
- s) Bidder's Waiver and Release of Information, Public Disclosure is Authorized and not Restricted:

I/My Firm grants to the State of Washington and the Washington State Parks and Recreation Commission a full and complete release of information of my/my Firm's bid response and other documents or information pertaining to the same and if also awarded the contract then to the contract and any documents or information involving or pertaining to the contract. Markings of "confidential", "proprietary" or similar term are unintentional and shall be ignored. Further, these materials or bid response may be publicly disclosed with no advanced notice to the Bidder/Contractor (me/my Firm). The Bidder/awarded Contractor (me/my Firm) understands, agrees, and accepts this provision and shall hold harmless and save harmless the State of Washington and State Parks.

- t) Certification - Wage Theft Prevention:

*Prior to awarding a contract, agencies are required to determine that a Bidder is a 'responsible Bidder.' See RCW 39.26.160(2) & (4). Pursuant to legislative enactment in 2017, the responsible Bidder criteria include a Bidder/contractor certification that the Bidder/contractor has not willfully violated Washington's wage laws. See Chap. 258, 2017 Laws (enacting SSB 5301).*

I/My Firm certifies under penalty of perjury under the laws of the state of Washington the following is true and correct: No Wage Violations. This Firm has not been determined by a final and binding citation and notice of assessment issued by the Washington Department of Labor and Industries or through civil judgement entered by a court of limited or general jurisdiction to have willfully violated, as defined in RCW 49.48.082. any provision of RCW chapters 49.45, 49.48., or 49.52 within the three (3) prior years to the date of this competition's date of issue.

- u) Certification - Supporting Workers' Rights:

Pursuant to the Washington State Governor's Executive Order 18-03 (dated June 12, 2018), the Washington State Parks and Recreation Commission is seeking to contract with qualified entities and business owners who certify that their employees are not, as a condition of employment, subject to mandatory individual arbitration clauses and class or collective action waivers.

I/My Firm certifies under penalty of perjury under the laws of the state of Washington the following is true and correct: No Mandatory Individual Arbitration Clauses and Class or Collective Action Waivers for Employees. This firm does NOT require its employees, as a condition of employment, to sign or agree to mandatory individual arbitration clauses or class or collective action waivers.

- v) Electronic Submission of Documents are Legally Binding:

Washington State recently enacted law allowing for electronic alternatives to pen-to-paper wet-ink signature on hardcopy documents, meaning if State Parks agrees to alternatives other than wet-ink signature (pen-to-paper) on hardcopy documents, these alternatives may be accepted by State Parks and are legally binding. See RCW 1.80.

For purposes of this competition document, State Parks will accept electronic signatures. For expanded details see Section 5.1 – Submission of Responses.

I/My Firm certifies under penalty of perjury under the laws of the State of Washington that submission of my/my Firm's bid response and accompanying copy of my signature is legally binding on me/my firm, and that the State Parks may rely upon its authenticity.

I, acting as my Firm's authorized representative declare on behalf of me/my firm under penalty of perjury under the laws of the State of Washington forgoing Certification and Assurances and Waiver is true and correct.

Bidder Name: \_\_\_\_\_  
Print full legal name of the firm submitting the Bid.  
If a sole proprietor, print the full legal name of the individual submitting the Bid

By: \_\_\_\_\_  
Signature of authorized person

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**9.2 Appendix B – Bidder Profile**

Bidder must provide all requested information in the spaces provided below.

Many of the questions require information if you answer “yes”. Please provide your response in the space provided unless otherwise directed to submit on a separate page (note: the spaces provided can expand to allow for more text to be typed in if necessary). If you are directed to provide answers on a separate page, please identify the question and corresponding number that you are responding to, and attach that document to this Appendix B.

**COMPANY INFORMATION:**

(a)	Firm Legal Name*			
	Street Address**			
	Mailing Address			
	City, State, ZIP			
Bidder Organization Type: Check appropriate box		Corporation:	<input type="checkbox"/> Domestic	<input type="checkbox"/> Foreign
		Limited Liability Company (LLC):	<input type="checkbox"/> Domestic	<input type="checkbox"/> Foreign
		Partnership:	<input type="checkbox"/> Domestic	<input type="checkbox"/> Foreign
		Sole Proprietorship:	<input type="checkbox"/>	
		<p><i>* Note: A sole proprietorship is an unincorporated business owned and run by an individual with no distinction between the business and the owner. It is not a legal entity. It simply refers to a person who owns the business and is personally responsible for its debts and who pays personal income taxes on profits earned from the business. If you are a bidder who operates a business on your own, you automatically are a sole proprietor unless you have adopted a business structure (e.g., corporation, LLC, partnership).</i></p>		

**\*Legal Name:** Many companies use a “Doing Business As” name or a nickname in their daily business. However, the State requires the legal name of your company as it is legally registered in the State of Washington or the state in which your company was registered. This should include the type of entity – Inc., LLC, LP, etc.

**\*\* Reciprocity:** For purposes of [RCW 39.26.271](#) (Reciprocity) the Bidder’s physical address will be used. Bidder must provide a physical address for his place of business. A post office box IS NOT a physical address.

(b)	DBA (if any)		
	Telephone Number(s)		
	Area Code:	Number:	Extension:
	Area Code:	Number:	Extension:

(c)	A list identifying which parties of the organization have the authority to sign contracts/ amendments on behalf of the Bidder’s entity.
-----	---

(d)	Names, addresses, e-mail addresses and telephone numbers of the sole proprietor, partners, or principal officers as appropriate to the organization		
	Name & Title:		
	Address:		
	Email Address:		
	Telephone Number		
	Area Code:	Number:	Extension:

(e)	Primary Contact Person for Questions/Contract Negotiations, including address if different than above		
	Name & Title:		
	Address:		
	Email Address***:		
	Telephone Number for Contact Person		
	Area Code:	Number:	Extension:

\*\*\* **Email Address:** The email address provided by the Bidder in subsection (e) will be used for officially contacting the Bidder for purposes of the competition. If the email address is left blank, then the email address provided in subsection (d) will be used.

(f)	WA State UBI	
-----	--------------	--

(g)	Statewide Vendor Number (SWV)	
-----	-------------------------------	--

Bidder is urged to be registered with the Washington State Office of Financial Management as a statewide vendor. If no current SWV number, affirm that your organization will obtain a SWV number within ten (10) days of executing contract.  YES  NO

(h)	Federal Tax Identification Number	
-----	-----------------------------------	--

Is your firm certified as a minority or woman owned business with the Washington State Office of Minority & Women’s Business Enterprises (OMWBE)?	Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, provide Bidder’s OMWBE certification no.: _____
Is your firm a self-certified Washington State Small Business? <i>Note:</i> See 5.3 for criteria to qualify as a Washington State Small Business. <i>Note:</i> Regardless of size, a qualifying business must be owned and operated independently from all other businesses. In regard to size, the gross revenue thresholds, as reported on Bidder’s tax returns, are as follows: <ul style="list-style-type: none"> <li>▪ Microbusiness: Annual gross revenue of less than one million dollars.</li> <li>▪ Mini business: Annual gross revenue of more than one million dollars, but less than three million dollars.</li> <li>▪ Small Business: Annual gross revenue of less than seven million dollars over each of the three prior consecutive years.</li> </ul>	Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, provide the location for Bidder’s principal place of business: _____ Street Address _____ City, State, Zip Code If yes, what is your business size (based on annual gross revenue)? Microbusiness <input type="checkbox"/> Mini business <input type="checkbox"/> Small Business <input type="checkbox"/>
Is your firm certified as a Veteran-Owned Business with the Washington State Department of Veteran Affairs? <i>Note:</i> See 5.3 for criteria to qualify as a Certified Veteran-Owned Business.	Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, provide Bidder’s WDVA certification no.: _____

**9.3 Appendix C – Bid Price Proposal**

**Bidder Name:**

---

**Solicitation: 325-475 – Life Jacket Wear Rate Study**

**Instructions:**

1. Bidder must complete all columns in the tables below. For any portion that is not applicable, please enter N/A.
2. Bidder must enter a not-to-exceed rate it will charge to perform the services as described in the competitive solicitation. Not-to-exceed rate must include all costs or expenses necessary to perform the services and will be the maximum allowable rate used in the contract.

Columns which are illegible, or left blank, may be deemed non-responsive and will not continue further in the process.

<b><u>Cost Proposal by Objective</u></b>	
Offerors are to enter the price to complete each objective, as described in Section 1.2: Purpose of the Procurement. Prices entered here must be all-inclusive, and will be transferred to the resultant contract, if awarded. No additional charges will be allowed. The total cost for completion of all deliverables is the amount that will be evaluated.	
<b>Objective</b>	<b>Proposed Cost</b>
Objective 1 - finalize the life jacket use observational plan	\$
Objective 2 – recruit & train observers	\$
Objective 3 – complete all live jacket observations	\$
Objective 4 – data entry, analysis, & report preparation	\$
<b>Total Cost (not to exceed \$50,000):</b> * this is the amount that will be evaluated	\$

**Cost Control:** A bid may be deemed non-responsive if it exceeds the average of all other bids by 20% or greater.

**Not to Exceed Amount:** Per RFP Section 1.2: Estimated Contract Value - the total amount proposed may not exceed \$50,000.



**9.4 Appendix D - References (return this page)**

In the table below the Bidder shall provide three (3) references from customers or businesses, for which the Bidder has provided similar goods and services, and that the Reference can speak to the quality of the Bidder's goods and Bidder's customer service. State Parks reserves the right to request additional references and independently contact anyone that may have knowledge of the Bidder's Firm. Bidder's grant of Release of Information also authorizes State Parks to contact firms/parties other than those listed below.

**Note:** Responses provided below must be legible.

Company & Name of Person	Phone & Email
(EXAMPLE) Anything LLC John Smith, Owner	(EXAMPLE) 360.555.5555 <a href="mailto:john.smith@haha.com">john.smith@haha.com</a>

**9.5 Appendix E – Diversity Business Inclusion Plan - Subcontractors**

Bidders who plan to utilize subcontractors to perform the contract, if awarded, must complete this form. If your response to this solicitation will not utilize subcontractors, please indicate n/a below.

**Offeror Name:** \_\_\_\_\_

For the purposes of this form, Washington State-certified diverse businesses are defined as follows:

- Minority Business Enterprise (MBE), Women’s Business Enterprise (WBE), or combination of the two. Certified by the Office of Minority and Women’s Business Enterprises (OMWBE): <http://omwbe.wa.gov/>
- Veteran-owned Business. Certified by the Department of Veteran’s Affairs (DVA): <http://dva.wa.gov/>
- Small Business (includes Mini and Micro businesses). Certified through the Washington Electronic Business Solution (WEBS): <https://fortress.wa.gov/ga/webs/home.html>

Anticipated Certified Diverse Business Participation Goals

Subcontracting means direct performance of commercially useful work through subcontracting as part of the proposed project team. Of the total contract work, what are the diverse business participation goals proposed for subcontracting on your team? Please only include the above-listed Washington State certification types in your “Consultant-defined Anticipated Percent of Contract Amount (Goals)” estimate. Zero percent (0%) is not a goal.

Anticipated Certified Diverse Business Participation Goals	Washington State Goals	Consultant-defined Anticipated Percent of Contract Amount (Goals)
Minority-owned business (MBE)	10%	%
Women-owned business (WBE)	6%	%
Veteran-owned business (DVA)	5%	%
Small business	5%	%

Subcontracting Team

List the names of the diverse businesses you anticipate using on this project. Generally describe the work you expect the diverse business to perform and identify the percent of total contract value intended for each diverse business. Please include the above-listed Washington State certification types. *If necessary, add more rows.*

Name of Diverse Business	Specify Diverse Business Certification (circle one or more)	Describe Trade or Task	Anticipated Percent of Contract Amount
	MBE, WBE, DVA, Small		%
	MBE, WBE, DVA, Small		%
	MBE, WBE, DVA, Small		%
	MBE, WBE, DVA, Small		%
	MBE, WBE, DVA, Small		%

Describe bidder’s plan to meet or exceed bidder’s voluntary diverse business inclusion plan – subcontractors’ goals, including outreach.

---



---



---

**Appendix E - Diversity Business Inclusion Plan – Subcontractors (return this page)**

---

**Diversity Expert:**

Identify the person within your team to manage your diverse inclusion responsibilities.

Diversity Expert Name: \_\_\_\_\_

Diversity Expert Contact Information: \_\_\_\_\_

Diversity Expert Firm (if another firm is managing participation): \_\_\_\_\_

**Past Performance**

Please select five (5) of your projects with Washington State-certified diverse business participation (MBE, WBE, DVA, and/or Small/Mini/Micro) and list them below for the last five (5) years. If you do not have any projects that tracked or reported diverse business participation, you may leave this section blank. In that case, please attach an additional sheet with explanation.

You may have projects with diverse business participation for an organization or entity that required *different* diverse business categories (including self-certification). If so, please attach a sheet with the same column data and information but include percentages for the categories that were tracked during the project.

Contract Name	Contracting Agency or Entity	Contract Amount	Year	Percent of Contract Amount	
		\$		Minority-owned business:	%
				Women-owned business:	%
				Veteran-owned business:	%
				Small/mini/micro business:	%
Contract Name	Contracting Agency or Entity	Contract Amount	Year	Percent of Contract Amount	
		\$		Minority-owned business:	%
				Women-owned business:	%
				Veteran-owned business:	%
				Small/mini/micro business:	%
Contract Name	Contracting Agency or Entity	Contract Amount	Year	Percent of Contract Amount	
		\$		Minority-owned business:	%
				Women-owned business:	%
				Veteran-owned business:	%
				Small/mini/micro business:	%
Contract Name	Contracting Agency or Entity	Contract Amount	Year	Percent of Contract Amount	
		\$		Minority-owned business:	%
				Women-owned business:	%
				Veteran-owned business:	%
				Small/mini/micro business:	%
Contract Name	Contracting Agency or Entity	Contract Amount	Year	Percent of Contract Amount	
		\$		Minority-owned business:	%
				Women-owned business:	%
				Veteran-owned business:	%
				Small/mini/micro business:	%

State Parks will review the submitted inclusion plan for genuine efforts.

## **9.6 Exhibits**

Exhibits are attached to this solicitation as separate documents and incorporated herein as such. The following 2 exhibits are included:

### **EXHIBIT A – Sample Contract with General Terms and Conditions**

A sample contract with general terms and conditions is provided in this section and/or will be separately posted on WEBS with a file name of “Exhibit A / Sample Contract.” The file name may or may not also include the competition’s number as part of the file name.

The sample contract is a close, but not perfect, representation of what the Apparent Successful Bidder (ASB) will be expected to sign. The actual agreement will need to include elements of the ASB’s bid response, any negotiated conditions, the statement of work, performance periods, contractor information, compensation, and any updates to comply with law, regulation, or policy. Should the ASB refuse to sign the State Parks drafted contract, the ASB will be disqualified.

### **EXHIBIT B – State Parks 2014 Life Jacket Observational Study**

The life jacket study that was done by State Parks in 2014 is provided here, for reference.



**EXHIBIT A**  
**WASHINGTON STATE**  
**PARKS AND RECREATION COMMISSION**  
**PURCHASED SERVICES AGREEMENT**  
**PARKS CONTRACT NO. SC «CONTRACTNUMBER»**

THIS AGREEMENT is made and entered into by and between the Parks & Recreation Commission, State of Washington, hereinafter referred to as "State Parks", and «ContractorConsultantName», hereinafter referred to as the "Contractor", for the express purposes set forth in the following provisions of this contract.

**ACQUISITION AUTHORITY**

State Parks has the authority as provided by RCW 39.26.090. Currently, STATE PARKS has delegated authority for services in the amount of \$1,000,000 per contract event for services. Per policy DES—090-00, section 6, subsection c: General Delegated Authority dollar amounts are not cumulative; the dollar amounts apply to each contract term or to each purchase event

The purpose of this contract is to provide specialized services as described below, which State Parks is unable to adequately perform with its own personnel.

In consideration of the terms and conditions contained herein, or attached and incorporated and made a part hereof, State Parks and Contractor mutually agree as follows:

**SPECIAL TERMS AND CONDITIONS**

**I. SCOPE OF WORK**

Attachment "A" contains the General Terms and Conditions governing work to be performed under this contract, the nature of the working relationship between State Parks and the Contractor, and specific obligations of both parties.

The Contractor will provide the following services:



**II. PERIOD OF PERFORMANCE**

Subject to other contract provisions, the period of performance under this contract will be from the date this instrument is signed by State Parks, through «OriginalExpirationDate», unless sooner terminated as provided herein.

**III. RIGHTS AND OBLIGATIONS**

All rights and obligations of the parties to this contract shall be subject to and governed by the special terms and conditions contained in the text of this contract instrument and the General Terms and Conditions attached hereto as Attachment A, incorporated by reference herein.

#### IV. COMPENSATION AND PAYMENT

- A. Amount of Compensation. Maximum compensation for this contract is «Origcontractamount»ths Dollars («OrigContractAmount»). Any additional services provided by the Contractor must have the prior written approval of State Parks.
- B. Expenses. Contractor shall receive reimbursement expenses only as authorized in advance by State Parks as reimbursable. Receipts must be attached to the invoices for reimbursement of any expenditure in the amount of \$25.00 or more.
- C. Time and Method of Payment. Compensation for services rendered shall be payable upon receipt of properly completed invoices, which shall be submitted to State Parks by the Contractor not more often than monthly. The invoices shall describe and document to State Parks' satisfaction, a description of the work performed, activities accomplished, or the progress of the project. The rates shall be in accordance with those herein agreed to.

Payment shall be considered timely if made by State Parks within 30 days after receipt of properly completed invoices. Payment shall be sent to the address designated by the Contractor. State Parks may, in its sole discretion, terminate the contract or withhold payments claimed by the Contractor for services rendered if the Contractor fails to satisfactorily comply with any term or condition of this contract.

#### V. CONTRACT REPRESENTATIVES

- A. State Parks' representative on this contract shall be «ProjectRepName», «ProjectRepTitle», phone «ProjectRepPhone», who shall be responsible for monitoring the performance of the Contractor, the approval of actions by the Contractor, the approval for payment of billings and expenses submitted by the Contractor, and the acceptance of any reports by the Contractor.
- B. The Contractor's representative on this contract shall be «FirstName» «LastName», «Title», phone «PhoneNumber», who will be the contact person for all communications regarding the conduct of work under this contract.

#### VI. INTERPRETATION OF CONTRACT

- A. Order of Precedence. In the event of an inconsistency in this contract, unless otherwise provided herein, the inconsistency shall be resolved by giving precedence in the following order:
- Applicable Federal and state of Washington statutes and regulations
  - Special terms and conditions as contained in this basic contract instrument
  - Attachment A - General Terms and Conditions
  - Scope of Work
  - Any other provision, term, or material incorporated herein by reference or otherwise incorporated
- B. Entire Agreement. This contract including referenced attachments represents all the terms and conditions agreed upon by the parties. No other understandings or

representations, oral or otherwise, regarding the subject matter of this contract shall be deemed to exist or to bind any of the parties hereto.

- C. Conformance. If any provision of this contract violates any statute or rule of law of the State of Washington, it is considered modified to conform to that statute or rule of law.
- D. Approval. This contract shall be subject to the written approval of State Parks' authorized representative and shall not be binding until so approved. The contract may be altered, amended, or waived only by a written amendment executed by both parties.

THIS CONTRACT, consisting of Nine (9) total pages which includes [redacted] attachments, is executed by the persons signing below who warrant that they have the authority to execute the contract.

Contractor:

State Parks:

«**ContractorConsultantName**»  
«PhysicalAddress»  
«PhysicalCity», «PhysicalState»  
«PhysicalZipCode»  
  
«FirstName» «LastName», «Title»  
Phone: «PhoneNumber»  
Email: «EmailAddress»

**Washington State  
Parks and Recreation Commission**  
1111 Israel Road SW  
PO Box 42650  
Olympia, WA 98504-2650  
(360) 902-8554  
ContractsandProcurement@parks.wa.gov

By \_\_\_\_\_

By \_\_\_\_\_

Title \_\_\_\_\_

Mark Bibeau,  
Title Chief Financial Officer

Date \_\_\_\_\_

Date \_\_\_\_\_

UBI No. «UBINumber»

Fed. Tax Id. No. «FederalID»

Approved as to form:

Mike Ferguson /s/  
Assistant Attorney General  
August 2009

## **Attachment A GENERAL TERMS AND CONDITIONS**

**DEFINITIONS** -- As used throughout this contract, the following terms shall have the meaning set forth below:

- A. "State Parks" shall mean the Washington State Parks and Recreation Commission, a state government agency.
- B. "Agent" shall mean the Director, Washington State Parks and Recreation Commission and/or the delegate authorized in writing to act on the Director's behalf.
- C. "Contractor" shall mean the individual or entity performing services under this contract.

**CONTRACTOR NOT EMPLOYEE OF STATE PARKS** -- The Contractor performing under this contract is not an employee or agent of State Parks. The Contractor will not hold himself out as nor claim to be an officer or employee of State Parks or of the state of Washington by reason hereof, nor will the Contractor make any claim of right, privilege or benefit which would accrue to an employee under Chapter 41.06 RCW or Chapter 28B.16 RCW.

**NONDISCRIMINATION** -- During the performance of this contract, the Contractor shall comply with all federal and state nondiscrimination laws, regulations and policies.

**NONCOMPLIANCE WITH NONDISCRIMINATION LAWS** -- In the event of the Contractor's noncompliance or refusal to comply with any nondiscrimination law, regulation, or policy, this contract may be rescinded, canceled or terminated in whole or in part, and the Contractor may be declared ineligible for further contracts with State Parks. The Contractor shall, however, be given a reasonable time in which to cure this noncompliance. Any dispute may be resolved in accordance with the "Disputes" procedure set forth herein.

**SUBCONTRACTING** -- The Contractor shall not enter into subcontracts for any of the work contemplated under this contract without obtaining prior written approval of the Agent.

**INDEMNITY**-- Contractor shall hold harmless and indemnify the State of Washington, State Parks, its officers, employees, successors and assigns against any and all damages and/or losses arising out of Contractor's use of, or presence or activity in, the facilities, including those arising out of the use or operation of equipment or facilities or as a result of the conduct of Contractor's programs, or from the conduct of Contractor's employees or agents, or damages or vandalism to facilities by third parties, contracted or participating in Contractor's programs, events or activities.

**LIABILITY INSURANCE**—If required in the special terms and conditions contractor shall obtain and keep in force during the term of this Agreement, a combined single limit bodily injury and property damage insurance policy in the minimum amount of \$1,000,000 naming State Parks as an additional insured against any liability arising out of Contractor's or its agents, employees, or assigns. Contractor shall provide to State Parks, a certificate evidencing such insurance coverage and shall provide 30 days written notice prior to any changes in the amount of cancellation of said policy.



- Contractor shall buy and maintain property insurance covering all real property and fixtures, equipment, and tenant improvements and betterment's. Such insurance shall be written on an all risks basis and, at a minimum, cover the perils insured under ISO special causes of loss form CP 10 30, and cover the full replacement cost of the property insured. Such insurance may have commercially reasonable deductibles.
- Any coinsurance requirement in the policy shall be waived.
- State shall be included as an insured and a loss payee under the property insurance policy.

AUTOMOBILE INSURANCE-- If required in the special terms and conditions contractor shall maintain business auto liability and, if necessary, commercial umbrella liability insurance with a limit not less than \$1,000,000 per accident. Such insurance shall cover liability arising out of "Any Auto." Business auto coverage shall be written on ISO form CA 00 01, or substitute liability form providing equivalent coverage. If necessary the policy shall be endorsed to provide contractual liability coverage and cover a "covered pollution cost or expense" as provided in the 1990 or later editions of CA 00 01. Contractor waives all rights against State for the recovery of damages to the extent they are covered by business auto liability or commercial umbrella liability insurance.

INDUSTRIAL INSURANCE COVERAGE-- Contractor shall provide or purchase industrial insurance coverage for themselves their employees as required by Labor and Industries prior to performing work under this Agreement. State Parks will not be responsible for payment of industrial premiums or for any other claim or benefit for Contractor, or any subcontractor or employee of Contractor, which might arise under the industrial insurance laws during the performance of duties and services under this agreement. Contractor, its employees and agents performing under this contract, are not employees of State Parks.

COVENANT AGAINST CONTINGENT FEES -- The Contractor warrants that no person or selling agent has been employed or retained to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage or contingent fee, excepting bona fide employees or bona fide established agent maintained by the Contractor for the purpose of securing business. State Parks shall have the right, in the event of breach of this clause by the Contractor, to annul this contract without liability or, in its discretion, to deduct from the contract price or consideration or recover by other means the full amount of such commission, percentage, brokerage or contingent fee.

CONFLICT OF INTEREST -- State Parks may, by written notice to the Contractor terminate this contract if it is found after due notice and examination by the Agent that there is a violation of the Executive Conflict of Interest Act, Chapter 42.18 RCW; Code of Ethics for Public Officers and Employees, Chapter 42.22 RCW; or any similar statute involving the Contractor in the procurement of, or performance under, this contract.

In the event this contract is terminated as provided above, State Parks shall be entitled to pursue the same remedies against the Contractor as it could pursue in the event of a breach of the contract by the Contractor. The rights and remedies of State Parks provided for in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law. The existence of facts upon which the Agent makes any determination under this clause shall be an issue and may be reviewed as provided in the "Disputes" clause of this contract.

## TREATMENT OF ASSETS –

- A. Title to all property furnished by State Parks shall remain in State Parks. Title to all property furnished by the Contractor, for the cost of which the Contractor is entitled to be reimbursed as a direct item of cost under this contract, shall pass to and vest in State Parks upon delivery of such property by the Contractor. Title to other property, the cost of which is reimbursable to the Contractor under this contract, shall pass to and vest in State Parks upon (i) issuance for use of such property in the performance of this contract, or (ii) reimbursement of the cost thereof by State Parks in whole or in part, whichever first occurs.
- B. Any property of State Parks furnished to the Contractor shall, unless otherwise provided herein or approved by State Parks, be used only for the performance of this contract.
- C. The Contractor shall be responsible for any loss or damage to property of State Parks which results from the negligence to the Contractor or which results from the failure on the part of the Contractor to maintain and administer that property in accordance with sound management practices.
- D. Upon loss or destruction of, or damage to, any State Parks property, the Contractor shall notify State Parks thereof and shall take all reasonable steps to protect that property from further damage.
- E. The Contractor shall surrender to State Parks all property of State Parks prior to settlement upon completion, termination or cancellation of this contract.

NONASSIGNABILITY -- Neither this contract, nor any claim arising under this contract, shall be transferred as assigned by the Contractor.

RECORDS, DOCUMENTS, AND REPORTS -- The Contractor shall maintain books, records, documents and other evidence of accounting procedures and practices which sufficiently and properly reflect all direct and indirect costs of any nature expended in the performance of this contract. These records shall be subject at all reasonable time to inspection, review, or audit by personnel duly authorized by State Parks, the Office of the State Auditor, and federal officials so authorized by law, rule, regulation, or contract. The Contractor will retain all books, records, documents, and other materials relevant to this contract for six years after settlement, and make them available for inspection by persons authorized under this provision.

RIGHT OF INSPECTION -- The Contractor shall provide right of access to its facilities to State Parks, or any of its officers, or to any other authorized agent or official of the state of Washington or the federal government at all reasonable time, in order to monitor and evaluate performance, compliance, and/or quality assurance under this contract.

SAFEGUARDING OF INFORMATION -- The use or disclosure by any party of any information concerning State Parks for any purpose not directly connected with the administration of State Parks' or the Contractor's responsibilities with respect to services provided under this contract is prohibited except by prior written consent of State Parks.

RIGHTS IN DATA -- Unless otherwise provided, data which originates from this contract shall be "works for hire" as defined by the U.S. Copyright Act of 1976 and shall be owned by State Parks. Data shall include, but not be limited to, reports, documents, pamphlets, advertisements, books, magazines, surveys, studies, computer programs, films, tapes, and/or sound reproductions. Ownership includes the right to copyright, patent register and the ability to transfer these rights.

Data which is delivered under the contract, but which does not originate therefrom, shall be transferred to State Parks with a nonexclusive, royalty-free, irrevocable license to publish, translate, reproduce, deliver, perform, dispose of, and to authorize others to do so; Provided, that such license shall be limited to the extent which the Contractor has a right to grant such a license. The Contractor shall exert all reasonable effort to advise State Parks, at the time of delivery of data furnished under this contract, of all known or potential invasions of privacy contained therein and of any portion of such document which was not produced in the performance of this contract. State Parks shall receive prompt written notice of each notice or claim of copyright infringement received by the Contractor with respect to any data delivered under this contract. State Parks shall have the right to modify or remove any restrictive markings placed upon the data by the Contractor.

REGISTRATION WITH DEPARTMENT OF REVENUE -- The Contractor shall complete registration with the Department of Revenue, Olympia, WA, and be responsible for payment of all taxes due on payments made under this contract.

LICENSING, ACCREDITATION AND REGISTRATION -- The Contractor shall comply with all applicable local, state, and federal licensing, accreditation and registration requirements/standards, necessary for the performance of this contract.

ADVANCE PAYMENTS PROHIBITED -- No payments in advance or in anticipation of services or supplies to be provided under this contract shall be made by State Parks.

SAVINGS -- In the event funding from state, federal, or other sources is withdrawn, reduced, or limited in any way after the effective date of this contract and prior to normal completion, State Parks may terminate the contract under the "Termination for Convenience" clause, without the five day notice requirement, subject to renegotiations under those new funding limitations and conditions.

LIMITATION OF AUTHORITY -- Only the Agent shall have the express, implied, or apparent authority to alter, amend, modify, or waive any clause or condition of this contract. Furthermore, any alteration, amendment, modification, or waiver of any clause or condition of this contract is not effective or binding unless made in writing and signed by the Agent.

WAIVER OF DEFAULT -- Waiver of any default shall not be deemed to be a waiver of any subsequent default. Waiver of breach of any provision of the contract shall not be deemed to be a waiver of any other or subsequent breach and shall not be construed to be a modification of the terms of the contract unless stated to be such in writing, signed by the Agent and attached to the original contract.

CHANGES AND MODIFICATIONS -- The Agent may, at any time, by written notification to the Contractor and without notice to any know guarantor or surety, make changes in the general scope of the services to be performed under the contract. If any such changes cause an

increase or decrease in the cost of, or the time required for the performance of this contract, an equitable adjustment may be made in the contract price or period of performance, or both, and the contract shall be modified in writing accordingly. Any claim by the Contractor for adjustment under this clause must be asserted within thirty (30) days from the date of Contractor's receipt of the notice of such change; Provided, however, that the Agent may, upon determining that the facts justify such action, receive and act upon such claim asserted at any time prior to final payment under this contract. Failure to agree to any adjustment shall be a dispute concerning a question of fact within the meaning of the clause of this contract entitled "Disputes." However, nothing in this clause shall excuse the Contractor from proceeding with the contract as changed.

DISPUTES -- Except as otherwise provided in this contract, when a bona fide dispute arises between State Parks and the Contractor and it cannot be resolved, either party may request a dispute hearing with the Agent. Either party's request for a dispute hearing must be in writing. The parties agree that this dispute process shall precede any action in a judicial or quasi-judicial tribunal.

TERMINATION FOR DEFAULT -- By written notice the Agent may terminate the contract, in whole or in part, for failure of the Contractor to perform any of the provisions hereof. In such event the Contractor shall be liable for damages as authorized by law including, but not limited, to any cost difference between the original contract and the replacement or cover contract and all administrative costs directly related to the replacement contract, e.g., cost of the competitive bidding, mailing, advertising and staff time; Provided, that if (i) it is determined for any reason the Contractor was not in default, or (ii) the Contractor's failure to perform is without Contractor's fault or negligence, the termination shall be deemed to be a Termination for Convenience.

TERMINATION FOR CONVENIENCE -- Except as otherwise provided in this contract, the Agent may, by five (5) days written notice, beginning on the second day after the mailing, terminate this contract in whole or in part when it is in the best interests of State Parks. If this contract is so terminated, State Parks shall be liable only for payment in accordance with the terms of this contract for services rendered prior to the effective date of termination.

TERMINATION PROCEDURE -- Upon termination of this contract State Parks, in addition to any other right provided in this contract, may require the Contractor to deliver to State Parks any property specifically produced or acquired for the performance of such part of this contract as has been terminated. The provisions of the "Treatment of Assets" clause shall apply in such property transfer.

State Parks shall pay to the Contractor the agreed upon price, if separately stated, for completed work and services accepted by State Parks, or the amount agreed upon by the Contractor and State Parks or (i) completed work and services for which no separate price is stated, (ii) partially completed work and services, (iii) other property or services which are accepted by State Parks, and (iv) the protection and preservation of property, unless the termination is for default, in which case the Agent shall determine the extent of the liability of State Parks. Failure to agree with such determination shall be a dispute within the meaning of the "Disputes": clause of this contract. State Parks may withhold from any amount due the Contractor such sum as the Agent determines to be necessary to protect State Parks against potential loss or liability.

The rights and remedies of State Parks provided in this section shall not be exclusive and are in addition to any other rights and remedies provided by law or under this contract.

After receipt of a notice of termination, and except as otherwise directed by the Agent, the Contractor shall:

1. Stop work under the contract on the date, and to the extent specified, in the notice;
2. Place no further order or subcontracts for materials, services, or facilities except as may be necessary for completion of such portion of the work under the contract as is not terminated;
3. Assign to State Parks, in the manner, at the times, and to the extent directed by the Agent, all of the rights, title, and interest of the Contractor under the orders and subcontracts so terminated, in which case State Parks has the right, at its discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontracts.
4. Settle all outstanding liabilities and all claims arising out of such termination of orders and subcontracts, with the approval or ratification of the Agent to the extent Agent may require, which approval or ratification shall be final for all the purposes of this clause;
5. Transfer title to State Parks and deliver in the manner, at the times, and to the extent directed by the Agent any property which, if the contract had been completed, would have been required to be furnished to State Parks;
6. Complete performance of such part of the work as shall not have been terminated by the Agent; and
7. Take such action as may be necessary, or as the Agent may direct, for the protection and preservation of the property related to this contract which is in the possession of the Contractor and in which State Parks has or may acquire an interest.

GOVERNING LAW -- This contract shall be governed by the laws of the state of Washington. In the event of a lawsuit involving this contract, venue shall be proper only in Thurston County. The Contractor by execution of this contract acknowledges the jurisdiction of the courts of the state of Washington in this matter.

SEVERABILITY -- If any provision of this contract or any provision of any document incorporated by reference shall be held invalid, such invalidity shall not affect the other provisions of this contract which can be given effect without the invalid provision, and to this end the provisions of this contract are declared to be severable.

**END OF GENERAL TERMS AND CONDITIONS**  
/ / / / /

# Washington State Parks and Recreation Department

## 2014 Life Jacket Observational Study



Conducted by



Thomas W. Mangione  
Wendy Chow  
Elizabeth Heitz  
Heather Lisinski

Spring, 2015



## Contents

Introduction .....	7
A. Methodology .....	7
B. 2014 Washington State Life Jacket Wear Rates .....	10
Wear Rates for All Boaters and by Age and Gender .....	10
Table B1. Wear Rates by Boater Age and Gender .....	11
Types of Power Boats .....	12
Table B2. Wear Rates by Types of Power Boats .....	13
Types of Paddle Craft .....	14
Table B3. Wear Rates by Types of Paddle Craft .....	15
Types of Sailboats.....	16
Table B4. Wear Rates by Types of Sailboats.....	17
Boat Size .....	18
Table B5. Wear Rates by Boat Size .....	19
Boating Activity .....	20
Table B6. Wear Rates by Boat Activity .....	21
Water Temperature .....	22
Table B7. Wear Rates by Water Temperature .....	23
Wear Rates by Type of Body of Water .....	24
Table B8. Wear Rates by Type of Water Body.....	25
Air Temperature .....	26
Table B9. Wear Rates by Air Temperature .....	27
Current Strength .....	28
Table B10. Wear Rates by Current Strength.....	29
Wind Speed .....	30
Table B11. Wear Rates by Wind Speed .....	31
C. 2014 Washington Wear Rates Comparing Loaner Board Sites versus Non-Loaner Board Sites .....	32
All Boaters by Age of Boater .....	34
Table C1. 2014 Loaner Board Sites versus Non-Loaner Board Sites Wear Rates by Boater Age.....	35
All Boaters by Gender and Gender within Age Groups.....	36
Table C2. 2014 Loaner Board Sites versus Non-Loaner Board Sites Wear Rates by Boater Gender and Gender Within Age Groups	37
Type of Power Boats .....	38
Table C3. 2014 Loaner Board Sites versus Non-Loaner Board Sites Adult Wear Rates by Types of Power Boats .....	39
Types of Paddle Craft .....	40
Table C4. 2014 Loaner Board Sites versus Non-Loaner Board Sites Adult Wear Rates by Types of Paddle Craft.....	41
Types of Sailboats.....	42
Table C5. 2014 Loaner Board Sites versus Non-Loaner Board Sites Adult Wear Rates by Types of Sail Boats .....	43
Boat Size .....	44
Table C6. 2014 Loaner Board Sites versus Non-Loaner Board Sites Adult Wear Rates by Boat Size .....	45
Boat Activity .....	46
Table C7. 2014 Loaner Board Sites versus Non-Loaner Board Sites Adult Wear Rates by Boat Activity .....	47
Water Temperature .....	48
Table C8. 2014 Loaner Board Sites versus Non-Loaner Board Sites Adult Wear Rates by Water Temperature.....	49
Type of Water Body.....	50
Table C9. 2014 Loaner Board Sites versus Non-Loaner Board Sites Adult Wear Rates by Type of Body of Water.....	51
Air Temperature .....	52
Table C10. 2014 Loaner Board Sites versus Non-Loaner Board Sites Adult Wear Rates by Air Temperature.....	53
Current Strength .....	54



Table C11. 2014 Loaner Board Sites versus Non-Loaner Board Sites Adult Wear Rates by Current Strength .....	55	All Boaters by Age and Age/Gender.....	76
Wind Speed .....	56	Table E1. Wear Rates by Boater Age & Gender 2014 WA versus 2012-2014 National .....	77
Table C12. 2014 Loaner Board Sites versus Non-Loaner Board Sites Adult Wear Rates by Wind Speed.....	57	Types of Power Boats.....	78
Summary of Loaner Board Findings .....	58	Table E2. Wear Rates by Types of Power Boats 2014 WA versus 2012-2014 National .....	79
Summary of Loaner Board versus Non-Loaner Board Site Comparison .....	59	Types of Paddle Craft .....	80
D. Washington 2014 Findings Compared to Washington 2010 Findings.....	60	Table E3. Rates by Types of Paddle Craft 2014 WA versus 2012-2014 National .....	81
All Boaters by Age and Age/Gender Differences .....	60	Types of Sail Boats.....	82
Table D1. Wear Rates by Boater Age and Gender_2010 versus 2014 WA .....	61	Table E4. Rates by Types of Sail Boats 2014 WA versus 2012-2014 National .....	83
Types of Boats .....	62	Boat Size .....	84
Table D2. Wear Rates by Types of Boats_2010 versus 2014 WA.	63	Table E5. Wear Rates by Boat Size 2014 WA versus 2012-2014 National .....	85
Boat Size .....	64	Boat Activity .....	86
Table D3. Wear Rates by Boat Size_2010 versus 2014 WA.....	65	Table E6. Wear Rates by Boat Activity 2014 WA versus 2012-2014 National .....	87
Boating Activity .....	66	Water Temperature .....	88
Table D4. Wear Rates by Boat Activity 2010 versus 2014 WA....	67	Table E7. Wear Rates by Water Temperature 2014 WA versus 2012-2014 National .....	89
Water Temperature .....	68	Air Temperature .....	90
Table D5. Wear Rates by Water Temperature 2010 versus 2014 WA .....	69	Table E8. Wear Rates by Air Temperature 2014 WA versus 2012-2014 National .....	91
Air Temperature .....	70	Current Strength .....	92
Table D6. Wear Rates by Air Temperature_2010 versus 2014 WA .....	71	Table E9 Wear Rates by Current Strength 2014 WA versus 2012-2014 National .....	93
Current Strength .....	72	Wind Speed .....	94
Table D7. Wear Rates by Current Strength_2010 versus 2014 WA .....	73	Table E10. Wear Rates by Wind Speed 2014 WA versus 2012-2014 National .....	95
Summary and Discussion of 2010 versus 2014 comparisons. ....	74		
E. A Comparison of WA 2014 Data to US National Data 2012-2014 ..	75		

Summary of Differences between Washington and US data .....	96
Table E12. ....	97
Significant Differences between WA and US Wear Rates For Children and Teenagers.....	97
F. Recommendations for Future Research .....	100
Appendix .....	101
List of sites in 2010 & 2014 with number of boats and boaters observed.....	103
Site Form Front Side .....	105
Site Form Back Side .....	105
Boat Observation Form .....	106
2014 Observation Sites .....	108



# Washington State Parks 2014 Life Jacket Use Report

## Introduction

This report provides results of a 2014 life jacket observation study conducted in the summer months across Washington State by JSI Research and Training Institute, Inc. One of the goals of this study is to provide useful information on the possible impact of loaner boards on life jacket use while boating. The other two goals are (a) to provide trend information on the use of life jackets from 2010 to 2014 and (b) to compare life jacket use in Washington State to National life jacket wear data. Although many boating sites had a wide variety of styles of loaner boards, below is the standard loaner board format in Washington State that is encouraged for display at swim and boating locations.



The report is divided into six sections: (A) Methodology; (B) 2014 Wear Rates; (C) A comparison of 2014 data for locations with loaner board sites versus those sites without loaner boards; (D) a comparison of 2014 results with a previous study conducted in 2010 in Washington State ; (E) a comparison of 2014 Washington data to 2012-2014 National observational data; and (F) Recommendations for future studies.

## A. Methodology

In order to provide reliable and valid indicators of changes in life jacket wear rates, and to provide a basis for comparing results to National observation data, it was essential for observation procedures to remain as close as possible to those used in the National Life Jacket Observation Study conducted by JSI for the U.S. Coast Guard for the past 16 years. The following is a detailing of the methods used in the Washington State 2014 study.

**Time period** – 2014 observations were conducted during the summer months (July and August), since that is the season of peak boater activity. The 2010 study was conducted in the last weekend of August, 2010 and the first weekend in September (Labor Day weekend).

**Site selection** – The starting point for identifying the 2014 sites was the list of sites used for the 2010 study. To the extent possible we wanted to revisit these same sites to facilitate comparisons between the 2010 and 2014 observations. However, observer notes in 2010 pointed out several sites that were not productive (less than 50 boaters observed) and these sites were targeted for replacement. In making these replacements alternative locations were selected in the same general part of the state as the site being replaced. It was also an opportunity to try to add sites that would increase the number of paddle craft as part of the observation study.

These changes resulted in maintaining the balance of sites in the eastern and western parts of the state. Washington State Parks

officials and members of the 2010 research team participated in the discussions as to which 2010 sites to drop and which sites to replace them with. In addition, the desire was to compare sites with life jacket loaner board placements near the boat ramps to those sites with no loaner boards. Furthermore, since the National study also observed four sites within Washington State in 2014 (not overlapping with any of the other 2010 or 2014 sites), these observations were also included in the analyses. A total of 34 sites were chosen in order to conduct observations for the 2014 study. They represented a range of water types....bays, sound, lakes, reservoirs, and rivers and therefore, roughly represented the variety of available boating venues in the state. All sites were chosen because they also had suitable sections from which observations of life jacket wear could be made from shore using high-powered binoculars. In the Appendix is a list of the 2010 and 2014 sites and also an indication as to which of these had loaner boards at the sites and which did not.

**Observational procedures** - Observations were conducted for a four-hour period either in the morning or the afternoon of a Saturday or Sunday. The goal was to observe as many boats as possible during the four-hour time frame. Viewing locations were on shore at a narrowing, bridge, or near a marina to facilitate observations. Two-person teams observed boating activity. One team member made the observations using high-powered binoculars and called out the information, which was then recorded on observation forms by the second team member. Team members alternated responsibilities frequently to ward off fatigue. In addition to recording information on boating activity and life jacket wear, observers recorded data about the site. This included information on weather and water conditions.

**Recruitment and Training of Observers.** In 2010 many observer teams were used to observe at one or two sites so that the study could be completed with two weekends. In 2014 we desired to have fewer teams who would each conduct observations at six sites or so. JSI contacted all the 2010 observer teams to find out if they would be

interested in doing the study again, but at more sites. From these contacts, 7 teams were assembled. The observers were paid \$150 per site which included all of their expenses and wages. JSI project staff trained the observers during a half-day session. Two trainings were conducted—one in western Washington and one in eastern Washington. The half-day training consisted of reviewing the observation procedures, observation forms, and required equipment using a power-point presentation. The training also included pictures of various types of boats and different aged children to facilitate consistent classification by the observers. After the classroom portion of the training, all teams went to a nearby viewing site and practiced observations with JSI staff present.

**Observation Forms** - There were two observation forms used matching closely the forms used in the National data collection. The first was the boat observation form, which was intended to record information about the boat and people on the boat. The second form was the site form, which was designed to record information about the site, weather and water conditions. The forms were identical to the National forms except that one additional “boat” type was added which was an inner tube (this is not a vessel according to the U.S. Coast Guard, but Washington State officials wanted to get a sense of popularity of using inner tubes to “float” down rivers).

### A) Boat Form (see Appendix):

Observers recorded the observation **time period** in two hour blocks of time (7:59 or earlier, 8am – 9:59am, 10am – 11:59pm, 12pm – 1:59pm, 2pm – 3:59pm, 4pm – 5:59pm, 6pm or later); the **type of boat** observed (skiff, speedboat/runabout, cabin cruiser, personal watercraft (PWC), pontoon boat, houseboat, sailboard, day sailor, cabin sailboat, rowboat, inflatable, canoe, kayak, other and inner tube); the **type of propulsion** (outboard engine, sterndrive/inboard engine, sail only, sail and auxiliary engine/motor, paddles/oars/manual, air thrust, and other); **length of boat** (less than 16 feet, 16-20.9 feet, 21-25.9 feet, 26-45.9, and 46+ feet); **type of operation** (motoring, sailing, paddling, drifting, or at anchor); and **activity** engaged in (fishing, intent to fish, water-skiing, white-water, high speed racing, swimming, pleasure boating, and other). Observers also recorded **operator/passenger status**; **gender** (male, female, or unknown); **age** (less than six, 6 - 12, 13 - 17, 18 - 64, 65 or older); **life jacket wear** (wearing or not wearing); **life jacket type** (traditional=old or inflatable=new). In addition, if the boat was involved in water-skiing or a towing sport, observers indicated which **boaters were skiing** (or being towed) at the time.

### B) Site Form (see Appendix):

At each site, the observers recorded the beginning time and ending **time of the observation period**, **water type** (lake, river, harbor/bay, Great Lake, intra-coastal waterway), and **water temperature**. The following environmental factors were measured by observers at each two hour time block during the observation period: **air temperature**; **wind speed**; **wave height** (less than six inches, six inches up to two feet, or over two feet); **weather** (sunny, partly cloudy, cloudy, raining, or stormy); and **visibility** (good, fair, or poor).

## **B. 2014 Washington State Life Jacket Wear Rates**

In this section of the report, we present the findings from the 2014 observations. The wear rate information is presented in tables that have a common format showing four different groups of boaters defined by age—children under age 13, teenagers 13 to 17 years of age, adults 18 years and older, and boaters of all ages combined. In each table we break out the results by various boater, boat or site characteristics. These data are presented as unadjusted rates in order to most accurately represent what the observers saw during their observation periods.

### **Wear Rates for All Boaters and by Age and Gender**

In Table B1 wear rates are presented for all boaters as well as for the three age groups. Within these groups gender comparisons are also shown. The overall wear rate for all boaters on all types of boats was 24.6%. However, there are substantial wear rate differences depending on the boaters' age. Children under 13 show 90% wear rates, while teens are at 45% and adults at 15%. (For ease of description, wear rates are rounded to whole numbers in the text while the tables report wear rates to one decimal place).

Within each age group comparisons are shown between males and females. In each age group there are no significant differences in wear rates by gender. However, what is interesting is that the gender comparison for all boaters combined is significant at the .001 level with females showing a higher wear rate than males (26% versus 23%). This apparent anomaly is due to the fact that among female boaters there is a much greater proportion of children and teenagers among those observed (about 25%) than among male boaters (about 14%). Since children and teens have higher wear rates than adults, when gender comparisons are made for all age groups combined, females in total show higher wear rates.

**Table B1. Wear Rates by Boater Age and Gender  
2014 WA**

<b>Wear Rates By Boater Age &amp; Gender</b>	<b>Children 0-12</b>		<b>Teens 13-17</b>		<b>Adults 18+</b>		<b>All Boaters</b>	
	<b>%</b>	<b>n/N</b>	<b>%</b>	<b>n/N</b>	<b>%</b>	<b>n/N</b>	<b>%</b>	<b>n/N</b>
<b>All Boaters (%, n Wearing)</b> <b>. . . N Total Observed</b>	90.5%	987 1,091	44.8%	304 678	14.7%	1,276 8,665	24.6%	2,567 10,434
<b>Significance of Age Differences</b>	****							
<b>All MALE Boaters (%, n Wearing)</b> <b>. . . N Total Observed</b>	90.3%	522 578	44.8%	141 315	14.7%	783 5,319	23.3%	1,446 6,212
<b>All FEMALE Boaters (%, n Wearing)</b> <b>. . . N Total Observed</b>	90.9%	461 507	44.0%	157 357	14.6%	485 3,333	26.3%	1,103 4,197
<b>Significance of Gender Differences</b>	ns		ns		ns		***	

Note--Significance Tests: \* = p <.05; \*\* = p <.01; \*\*\* = p <.001; \*\*\*\* = p <.0001



## Types of Power Boats

Approximately 18% of all boaters in Washington and 20% of boaters in the U.S. wore life jackets on all types of power boats combined (**Table B3**). In this table for the “all power boat” row, we control for the specific types of power boats as well as age, gender, size of boat, activity and water temperature. Children 0-12 in Washington on power boats had slightly higher wear than in the national sample (90% vs 89%), but these results were not statistically significant and none of the differences for specific types of power boats was significantly different either for this age group. Partially this is due to relatively small numbers of children on most types of power boats except for speedboats. There was a close to significant difference among teenagers with WA teens at 44% and national teens at 41%.

Adults in Washington were less likely to wear life jackets than adults in the national sample for all power boats combined (9% WA vs 11% US) and by individual types of power boat such as speedboats (3% WA vs 4% US), and cabin cruisers (<1% WA vs 2% US). However, wear rates were higher for adults on powered inflatables in WA than in the US (32% vs 21% respectively). Finally, persons on personal watercrafts or PWCs which are subjected to mandatory wear regulations, have nearly universal 100% wear across all age groups in both WA and the US.

**Table B2. Wear Rates by Types of Power Boats  
2014 WA**

<b>Wear Rates By Types of Power Boats</b>	<b>Children 0-12</b>		<b>Teens 13-17</b>		<b>Adults 18+</b>		<b>All Boaters</b>	
	<b>%</b>	<b>n/N</b>	<b>%</b>	<b>n/N</b>	<b>%</b>	<b>n/N</b>	<b>%</b>	<b>n/N</b>
<b>All Power Boats (%, n Wearing)</b>	90.4%	896	42.4%	255	9.9%	757	20.7%	1,908
<b>. . . N Total Observed</b>		991		602		7,630		9,223
<b>Significance across age groups</b>	****							
<b>Skiffs (%, n Wearing)</b>	91.0%	61	39.2%	20	15.6%	115	23.0%	196
<b>. . . N Total Observed</b>		67		51		736		854
<b>Speedboats (%, n Wearing)</b>	90.8%	650	38.2%	167	3.4%	157	16.8%	974
<b>. . . N Total Observed</b>		716		437		4,654		5,807
<b>Cabin Cruiser (%, n Wearing)</b>	80.2%	77	29.4%	15	2.6%	39	8.0%	131
<b>. . . N Total Observed</b>		96		51		1,489		1,636
<b>Pontoon (%, n Wearing)</b>	92.9%	52	23.1%	3	2.4%	6	19.3%	61
<b>. . . N Total Observed</b>		56		13		247		316
<b>Powered Inflatables (%, n Wearing)</b>	100%	7	100%	3	37.3%	28	44.7%	38
<b>. . . N Total Observed</b>		7		3		75		85
<b>PWCs (%, n Wearing)</b>	100%	49	100%	47	96.5%	412	97.1%	508
<b>. . . N Total Observed</b>		49		47		427		523
<b>Significance by type of boat</b>	**		****		****		****	

Note--Significance Tests: \* = p < .05; \*\* = p < .01; \*\*\* = p < .001; \*\*\*\* = p < .0001

Note--when cell sizes are less than 50, extreme caution should be used when interpreting differences.

## Types of Paddle Craft

Wear rates for all paddle craft combined exhibit the same relationship to age as seen for other types of boats—decreasing use by age (**see Table B3**). However, the decline with age is not as steep as it is with other types of boats; children wear at 90%, teenagers at 64% and adults at 58%. For all boaters combined the wear rates are similar to those for adults since they make up the bulk of the boaters using this type of craft.

Within each age group there are significant differences in wear rates by type of paddled craft. For children the only type of boat that shows lower wear rates are paddled inflatables/rafts but with the small sample size, this finding should be viewed with extreme caution. For teens similar caution should be exercised given the small numbers of observations. For adults kayaks show the highest wear rates (82%); followed by paddleboards (66%); canoes (43%); rowboats (22%) and finally paddled inflatables/rafts (5%). The significant differences in wear rates across types of paddle craft for all boaters combined closely mirrors those for adults since this aged boater predominates for this type of boat.

**Table B3. Wear Rates by Types of Paddle Craft  
2014 WA**

<b>Wear Rates By Types of Paddle Craft</b>	<b>Children 0-12</b>		<b>Teens 13-17</b>		<b>Adults 18+</b>		<b>All Boaters</b>	
	<b>%</b>	<b>n/N</b>	<b>%</b>	<b>n/N</b>	<b>%</b>	<b>n/N</b>	<b>%</b>	<b>n/N</b>
<b>All Paddlecraft (%, n Wearing)</b>	90.0%	72	63.5%	40	58.2%	438	61.5%	550
<b>. . . N Total Observed</b>		80		63		752		895
<b>Significance Test across age groups</b>	****							
<b>Paddled Inflatable/Raft (%, n Wearing)</b>	64.7%	11	44.4%	4	5.4%	8	13.3%	23
<b>. . . N Total Observed</b>		17		9		147		173
<b>Canoe (%, n Wearing)</b>	100%	18	80.0%	4	43.4%	36	54.7%	58
<b>. . . N Total Observed</b>		18		5		83		106
<b>Kayak (%, n Wearing)</b>	97.0%	32	85.0%	17	82.0%	305	83.3%	354
<b>. . . N Total Observed</b>		33		20		372		425
<b>Rowboat (%, n Wearing)</b>	100%	1	0%	0	21.7%	5	24.0%	6
<b>. . . N Total Observed</b>		1		1		23		25
<b>Paddleboards (%, n Wearing)</b>	90.9%	10	53.6%	15	66.1%	84	65.7%	109
<b>. . . N Total Observed</b>		11		28		127		166
<b>Significance Tests by Type of Boat</b>	**		*		****		****	

Note: Due to the small number of children and teens observed on paddle craft in Washington in 2014, caution should be exercised in interpreting the wear percentages for the individual boat types.  
 Note--Significance Tests: \* = p <.05; \*\* = p <.01; \*\*\* = p <.001; \*\*\*\* = p <.0001

## **Types of Sailboats**

Wear rates for different types of sailboats are shown in Table B4. For all sailboats combined the wear rates decline by age but the wear rates for sailboats in each age group are higher than they are for power boats (35% versus 21% for all ages combined). Wear rates for children and teens should be viewed with caution given the small number of observations.

Wear rates by type of sailboat show higher wear rates for day sailors than for cabin sailboats with almost three times the wear rate for adults on day sailors compared to cabin sailboats (72% versus 25%).

**Table B4. Wear Rates by Types of Sailboats  
2014 WA**

<b>Wear Rates By Types of Sail Boats</b>	<i>Children 0-12</i>		<i>Teens 13-17</i>		<i>Adults 18+</i>		<i>All Boaters</i>	
	<i>%</i>	<i>n/N</i>	<i>%</i>	<i>n/N</i>	<i>%</i>	<i>n/N</i>	<i>%</i>	<i>n/N</i>
<b>All Sail Boats (%, n Wearing)</b>	95%	19	81.8%	9	29.0%	81	35.2%	109
<b>. . . N Total Observed</b>		20		11		279		310
<b>Significance Test across Age groups</b>	****							
<b>Day Sailors (%, n Wearing)</b>	100%	6	100%	2	72.0%	18	78.8%	26
<b>. . . N Total Observed</b>		6		2		25		33
<b>Cabin Sailboats (%, n Wearing)</b>	92.9%	13	77.8%	7	24.8%	63	30.0%	83
<b>. . . N Total Observed</b>		14		9		254		277
<b>Significance Tests across boat types</b>	---		---		****		****	

Note: Due to the small number of children and teens observed on sail boats in Washington in 2014, caution should be exercised in interpreting the wear percentages for the individual boat types. Significance testing was not calculated when group sizes were less than 25.  
 Note--Significance Tests: \* = p <.05; \*\* = p <.01; \*\*\* = p < .001; \*\*\*\* = p < .0001

## Boat Size

In general, life jacket use is inversely associated with boat size, with higher wear among those on smaller sized boats and this basic finding is true for all age groups in Washington (**Table B5**). The relationship is particularly clear for all ages combined--for boats under 16 feet wear rates are 61%; 21% for boats 16 to 21 feet; 15% for boats 21 to 26 feet; and about 10% for boats 26 feet or longer.

For children under 13, there is still an effect of boat size, in part due to regulations which allow children to not wear life jackets if they are in an enclosed cabin. For teens the general finding is true except for a somewhat higher than expected wear rate on larger boats, which may be an anomaly because of the small sample size. For adults the major difference in wear rates is apparent for small boats under 16 feet but use drops off substantially in larger boats.

**Table B5. Wear Rates by Boat Size  
2014 WA**

<b>Wear Rates By Size of Boat</b>	<b>Children 0-12</b>		<b>Teens 13-17</b>		<b>Adults 18+</b>		<b>All Boaters</b>	
	<b>%</b>	<b>n/N</b>	<b>%</b>	<b>n/N</b>	<b>%</b>	<b>n/N</b>	<b>%</b>	<b>n/N</b>
<b>All Boats (%, n Wearing)</b>	90.5%	987	44.8%	304	14.7%	1,276	24.6%	2,567
<b>. . . N Total Observed</b>		1,091		678		8,665		10,434
<b>Significance Tests across Age groups</b>	****							
<b>Boat Size &lt;16 ft (%, n Wearing)</b>	94.5%	155	73.1%	103	56.5%	833	61.3%	1,091
<b>. . . N Total Observed</b>		164		141		1,474		1,779
<b>Boat Size 16-20.9ft (%, n Wearing)</b>	92.7%	507	40.8%	129	8.0%	289	20.7%	925
<b>. . . N Total Observed</b>		547		316		3,607		4,470
<b>Boat Size 21-25.9ft (%, n Wearing)</b>	86.9%	285	31.1%	61	4.0%	102	14.5%	448
<b>. . . N Total Observed</b>		328		196		2,571		3,095
<b>Boat Size 26+ft (%, n Wearing)</b>	76.9%	40	44%	11	5.1%	52	9.5%	103
<b>. . . N Total Observed</b>		52		25		1,013		1090
<b>Significance Tests across sizes</b>	****		****		****		****	

Note--Significance Tests: \* = p <.05; \*\* = p <.01; \*\*\* = p <.001; \*\*\*\* = p <.0001



## Boating Activity

Life jacket wear rates differed by the types of boating activity (**Table B6**) and this finding is true for each age group of boaters as well as for all ages combined. However, persons being towed or engaged in waterskiing are mandated to wear. Therefore, wear rates among this group are essentially 100% for all groups of boaters.

Among those fishing or intending to fish as well as for all other activities combined, the overall pattern is the same with wear rates declining with age.

One would expect that for those who are fishing or intending to fish that those wear rates would be higher than for “all other activities” which is primarily made up of pleasure boating. This expected relationship holds for children (although barely because of mandates) and teenagers (56% versus 38%). However, it seems that this does not hold for adults or when all boaters are combined. However, the “all other category” includes many different boat types while the fishing/intent to fish category is predominately made up of boaters who are on power boats. When the comparison of fishing/intent to fish category is made with “all other activities” but limiting the comparison to anglers on power boats, then the all boater category shows the expected relationship between wear rates--fishing/intent to fish being 19.3% and for all other activities the wear rates are 14.0% (not shown in Table B6).

**Table B6. Wear Rates by Boat Activity  
2014 WA**

<b>Wear Rates By Boat Activity</b>	<b>Children 0-12)</b>		<b>Teens 13-17</b>		<b>Adults 18+</b>		<b>All Boaters</b>	
	<b>%</b>	<b>n/N</b>	<b>%</b>	<b>n/N</b>	<b>%</b>	<b>n/N</b>	<b>%</b>	<b>n/N</b>
<b>All Boats (%, n Wearing)</b> . . . <b>N Total Observed</b>	90.5%	987 1,091	44.8%	304 678	14.7%	1,276 8,665	24.6%	2,567 10,434
<b>Significance Tests across Age groups</b>	****							
<b>Persons Being Towed (%, n Wearing)</b> . . . <b>N Total Observed</b>	100%	58 58	98.4%	60 61	100%	32 32	99.3%	150 151
<b>Fishing/Intent to Fish (%, n Wearing)</b> . . . <b>N Total Observed</b>	90.5%	67 74	56.1%	32 57	13.0%	135 1,042	20.0%	234 1,173
<b>All other activities (%, n Wearing)</b> . . . <b>N Total Observed</b>	89.9%	862 959	37.9%	212 560	14.6%	1,109 7,591	24.0%	2,183 9,110
<b>Significance Tests Across Activities</b>	*		****		****		****	

Note--Significance Tests: \* = p <.05; \*\* = p <.01; \*\*\* = p <.001; \*\*\*\* = p <.0001

## Water Temperature

One might expect wear rates to be higher when water temperatures are cooler (**Table B7**). For adults this expected finding is observed with wear rates being higher when water temperatures are less than 60 degrees compared to when they are warmer (22% versus 12-14%). Teenagers also show higher wear rates in these colder water situations. However, for children, this relationship is not as apparent given that mandatory life jacket regulations are in place for this group.

**Table B7. Wear Rates by Water Temperature  
2014 WA**

<b>Wear Rates By Water Temperature</b>	<b>Children 0-12</b>		<b>Teens 13-17</b>		<b>Adults 18+</b>		<b>All Boaters</b>	
	<b>%</b>	<b>n/N</b>	<b>%</b>	<b>n/N</b>	<b>%</b>	<b>n/N</b>	<b>%</b>	<b>n/N</b>
<b>All Boats (% Wearing)</b> . . . <b>N Total Observed</b>	90.5%	987 1,091	44.8%	304 678	14.7%	1,276 8,665	24.6%	2,567 10,434
<b>Significance Tests across Age groups</b>	****							
<b>Less than 60 degrees (% Wearing)</b> . . . <b>N Total Observed</b>	89.3%	109 122	51.6%	50 97	22.3%	317 1,423	29.0%	476 1,642
<b>60 to 69 degrees (% Wearing)</b> . . . <b>N Total Observed</b>	86.5%	236 273	42.6%	75 176	12.1%	322 2,666	20.3%	633 3,115
<b>Over 70 degrees (% Wearing)</b> . . . <b>N Total Observed</b>	92.2%	642 696	44.2%	179 405	13.9%	637 4,576	25.7%	1,458 5,667
<b>Significance Tests across Water Temperatures</b>	*		ns		****		****	

Note--Significance Tests: \* = p <.05; \*\* = p <.01; \*\*\* = p <.001; \*\*\*\* = p <.0001

## **Wear Rates by Type of Body of Water**

It is not obvious what the expected wear rates would be by body of water since differences are confounded by differences in types of boats that frequent these different locales. However, we show these rates in **Table B8**. For each body of water the usual age pattern is observed; lower wear rates as age increases. For children and teenagers there are not significant differences in wear rates by body of water. For adults, wear rates are highest in the bay or sound (21%) while wear rates for rivers and lakes/reservoirs are somewhat lower (15% to 13% respectively).

**Table B8. Wear Rates by Type of Water Body  
2014 WA**

<b>Wear Rates By Type of Body of Water</b>	<b>Children 0-12</b>		<b>Teens 13-17</b>		<b>Adults 18+</b>		<b>All Boaters</b>	
	<b>%</b>	<b>n/N</b>	<b>%</b>	<b>n/N</b>	<b>%</b>	<b>n/N</b>	<b>%</b>	<b>n/N</b>
<b>All Boats (% Wearing)</b> . . . <b>N Total Observed</b>	90.5%	987 1,091	44.8%	304 678	14.7%	1,276 8,665	24.6%	2,567 10,434
<b>Significance Tests across Age groups</b>	****							
<b>Bay, Inlet or Sound (% Wearing)</b> . . . <b>N Total Observed</b>	87.9%	124 141	50.0%	51 102	20.9%	364 1,739	27.2%	539 1,982
<b>River, Stream, Creek, Canal (% Wearing)</b> . . . <b>N Total Observed</b>	85.1%	74 87	36.8%	21 57	14.9%	101 679	23.8%	196 823
<b>Lake, Pond, Reservoir (% Wearing)</b> . . . <b>N Total Observed</b>	91.4%	789 863	44.7%	232 519	13.0%	811 6,247	24.0%	1,832 7,629
<b>Significance Tests across Bodies of Water</b>	ns (.08)		ns		****		**	

Note--Significance Tests: \* = p <.05; \*\* = p <.01; \*\*\* = p <.001; \*\*\*\* = p <.0001

## **Air Temperature**

One might expect that life jacket wear rates would increase as air temperature decreases (**Table B9**). For children there is no significant relationship of wear rates by air temperature. For adults and all boater ages combined the relationship is in the opposite direction as expected; wear rates increase as air temperatures increase.

**Table B9. Wear Rates by Air Temperature  
2014 WA**

<b>Wear Rates By Air Temperature</b>	<i>Children 0-12</i>		<i>Teens 13-17</i>		<i>Adults 18+</i>		<i>All Boaters</i>	
	%	n/N	%	n/N	%	n/N	%	n/N
<b>Less than 70 Degrees (%<i>, n Wearing</i>)</b> . . . N Total Observed	90.6%	164 181	42.4%	39 92	9.3%	192 2,071	16.9%	395 2,344
<b>70 to 79 Degrees (%<i>, n Wearing</i>)</b> . . . N Total Observed	88.9%	359 404	48.5%	142 293	16.3%	590 3,619	25.3%	1,091 4,316
<b>80 to 89 Degrees (%<i>, n Wearing</i>)</b> . . . N Total Observed	92.2%	401 435	38.5%	94 244	16.3%	418 2,564	28.2%	913 3,243
<b>Above 90 Degrees (%<i>, n Wearing</i>)</b> . . . N Total Observed	88.7%	63 71	59.2%	29 49	18.5%	76 411	31.6%	168 531
<b>Significance Tests across Air Temps</b>	ns		*		****		****	

Note--Significance Tests: \* = p <.05; \*\* = p <.01; \*\*\* = p < .001; \*\*\*\* = p < .0001



## Current Strength

One might expect that life jacket wear would increase with the speed of the current. However, complicating the findings is the fact that different proportions of types of boats are likely to be found in different current circumstances. Results are shown in **Table B10**. There are no significant differences of wear rates for children or for teenagers based on current strength. For adults interestingly the highest wear rates are on moderate current waters (32%) and lower for weak (24%) or strong currents (24%).

**Table B10 Wear Rates by Current Strength  
2014 WA**

<b>Wear Rates By Current Strength</b>	<i>Children 0-12</i>		<i>Teens 13-17</i>		<i>Adults 18+</i>		<i>All Boaters</i>	
	<i>%</i>	<i>n/N</i>	<i>%</i>	<i>n/N</i>	<i>%</i>	<i>n/N</i>	<i>%</i>	<i>n/N</i>
<b>Weak or None(%, n Wearing)</b>	91.3%	818	46.6%	236	13.4%	936	23.7%	1,990
<b>. . . N Total Observed</b>		896		507		6,997		8,400
<b>Moderate (%, n Wearing)</b>	87.2%	95	39.8%	41	24.0%	216	31.7%	352
<b>. . . N Total Observed</b>		109		103		900		1,112
<b>Strong (% , n Wearing)</b>	86.1%	74	39.7%	27	16.1%	124	24.4%	225
<b>. . . N Total Observed</b>		86		68		764		922
<b>Significance Tests Across Current Strength</b>	ns (.13)		ns		****		****	

Note--Significance Tests: \* = p <.05; \*\* = p <.01; \*\*\* = p <.001; \*\*\*\* = p <.0001

## Wind Speed

Wind speed is another environmental condition that might be expected to influence wear rates (see **Table B11**). For children there is no significant relationship with wind speed. For teenagers the relationship goes in the opposite direction with higher wear rates in calmer conditions and lower wear rates in windy conditions. For adults the pattern is not as clear; the lowest wear rates are for breezy conditions (7%) while highest in windy conditions (19%). When all ages are combined, the wear rates are lowest for calm conditions (21%) and higher when the winds are either breezy or windy (28%)

**Table B11. Wear Rates by Wind Speed  
2014 WA**

<b>Wear Rates By Wind Speed</b>	<b>Children 0-12</b>		<b>Teens 13-17</b>		<b>Adults 18+</b>		<b>All Boaters</b>	
	<b>%</b>	<b>n/N</b>	<b>%</b>	<b>n/N</b>	<b>%</b>	<b>n/N</b>	<b>%</b>	<b>n/N</b>
<b>Calm (0-1 knots) (% Wearing)</b>	92.6%	338	54.5%	103	13.0%	554	20.6%	995
<b>. . . N Total Observed</b>		365		189		4,273		4,827
<b>Breezy (2-5 knots) (% Wearing)</b>	89.4%	598	41.7%	185	16.2%	636	28.1%	1,419
<b>. . . N Total Observed</b>		669		444		3,938		5,051
<b>Windy (6+ knots) (% Wearing)</b>	89.5%	51	35.6%	16	18.9%	86	27.5%	153
<b>. . . N Total Observed</b>		57		45		454		556
<b>Significance Tests Across Wind Speeds</b>	ns		**		****		****	

Note--Significance Tests: \* = p <.05; \*\* = p <.01; \*\*\* = p < .001; \*\*\*\* = p < .0001

### C. 2014 Washington Wear Rates Comparing Loaner Board Sites versus Non-Loaner Board Sites

Loaner boards are becoming a popular strategy to encourage life jacket use both at swim sites and at boating sites. Loaner boards provide two key functions: (a) they encourage swimmers or boaters to wear a life jacket, and (b) they provide loaner life jackets to those who may not have one. The loaner boards are stocked with life jackets of different sizes and the instructions on the board show how to properly wear a life jacket and to make sure it fits properly. (see picture in the introduction to this report).

Of the 34 boating sites observed in 2014, there were life jacket loaner boards present at 15 of them. The total number of observations taken at sites where loaner boards were present was 4,380 while there were 6,054 boaters observed at the 19 sites without loaner boards. This provided a good opportunity to test whether wear rates were different at sites where loaner boards were present. It should be pointed out, however, that the specification of whether there was a loaner board present or not was made at the location of the observation site. It is entirely possible that at other access points on the lake, or river, or sound/bay, that there may indeed have been loaner boards at these other locations. Therefore, the comparisons herein should be viewed cautiously.

Below is a picture of a standard format loaner boards recommended by Washington State. Many of the sites that did have loaner boards, used a non-standard sign. In the appendix, we show pictures of the loaner boards at the 15 sites that had them.



Before conducting comparisons between the two types of sites, however, we tested whether there were any significant differences in the distribution of types of boats, environmental conditions or types of boaters across these two types of sites. If there were differences, then we would want to statistically control for those factors in order to determine any differences due to the presence of loaner boards per se. Preliminary analyses indicated that there were significant differences in the distribution of the following variables: types of boats; age; gender; size of boat; activity and water temperature. Therefore in the analyses presented in this chapter, all values are adjusted for covariates of age, gender, broad boat types, size of boat, activity and water temperature. When one of the covariates is being shown as a main effect in the table, it is dropped from the covariate list for that particular table. The tables that follow all have the same basic structure. We present results for a specific characteristic and for each variable category we test for differences in wear rates between loaner board sites and non-loaner board sites. All tables also show a column for “all sites” as a reference point. The data in this column are unadjusted for any covariates and corresponds to the all boater data presented in the previous section of this report.

For the first two tables showing results by age and age/gender, we show results for all boaters. Since there were no significant differences by age (see Table C1), the rest of the tables in this section are based on adults only.

## All Boaters by Age of Boater

Life jacket wear rates were significantly higher overall at loaner board sites (26%) than non-loaner board sites (24%) for all boaters combined (**see Table C1**). However, this overall result is really due to the significant difference in adult wear rates at these two sites. A larger percentage of adults (17%) at loaner board sites wore life jackets compared to 13% at sites without loaner boards. Among children 0-12 years old and teens 13-17 years old, there were no statistically significant differences in rates of life jacket use between sites with and without loaner boards. About 91% of children under age 13 and 45% of teens wore life jackets overall.

**Table C1.**  
**2014 Loaner Board Sites versus Non-Loaner Board Sites Wear Rates by Boater Age**

<b>Wear Rates By Boater Age</b>	<i>No Loaner Board</i>	<i>Loaner Board</i>	<i>All Sites</i>
<b>All Boaters (% wearing)</b>	23.5%	26.1%***	24.6%
. . . <b>N Total Observed</b>	6,054	4,380	10,434
<b>Age 0-12, Children (% wearing)</b>	90.1%	91.1%	90.5%
. . . <b>N Total Observed</b>	667	424	1,091
<b>Age 13-17, Teens (% wearing)</b>	46.3%	43.3%	44.8%
. . . <b>N Total Observed</b>	381	297	678
<b>Adults (18+) (% wearing)</b>	13.3%	16.7%****	14.7%
. . . <b>N Total Observed</b>	5006	3659	8,665

Note--Significance Tests between Loaner Board and Non-Loaner Board Wear Rates: \* = p <.05; \*\* = p <.01; \*\*\* = p < .001; \*\*\*\* = p < .0001  
Wear Rates shown for loaner board and non-loaner board sites control for covariates of age, gender, general boat type, size of boat, activity and water temperature.



## **All Boaters by Gender and Gender within Age Groups**

Table C2 shows life jacket wear rates comparing males to females for all age groups combined and within each of the age groups. Life jacket wear rates were significantly higher at loaner board sites than non-loaner board sites for males (25% vs 22% respectively), with borderline significance for females (27% vs 26% respectively,  $p=0.07$ ). There were no differences in rates among children 0-12 years by gender or among male teens 13-17 years old. However, a smaller percentage (38%) of female teens at loaner board sites wore life jackets as compared to 49% at non-loaner board sites. For adults, wear rates were significantly higher at loaner board sites for both males and females (17% vs 13% at sites without boards).

**Table C2.**  
**2014 Loaner Board Sites versus Non-Loaner Board Sites Wear Rates**  
**by Boater Gender and Gender Within Age Groups**

<b>Wear Rates By Boater Gender/Age</b>	<i>No Loaner Board</i>	<i>Loaner Board</i>	<i>All Sites</i>
<b>All MALE Boaters</b>	22.0%	25.0%***	23.3%
. . . <b>N Total Observed</b>	3,539	2,673	6,212
<b>All FEMALE Boaters</b>	25.5%	27.4% (.07)	26.3%
. . . <b>N Total Observed</b>	2,504	1,693	4,197
<b>Age 0-12, MALE Children</b>	90.0%	90.8%	90.3%
. . . <b>N Total Observed</b>	354	224	578
<b>Age 0-12, FEMALE Children</b>	90.0%	92.3%	90.9%
. . . <b>N Total Observed</b>	309	198	507
<b>Age 13-17, MALE Teens</b>	42.6%	47.3%	44.8%
. . . <b>N Total Observed</b>	173	142	315
<b>Age 13-17, FEMALE Teens</b>	49.0%	37.8%*	44.0%
. . . <b>N Total Observed</b>	207	150	357
<b>Adult MALES (18+)</b>	13.4%	16.5%***	14.7%
. . . <b>N Total Observed</b>	3,012	2,307	5,319
<b>Adult FEMALES (18+)</b>	13.0%	16.8%***	14.6%
. . . <b>N Total Observed</b>	1,988	1,345	3,333

Note--Significance Tests between Loaner Board and Non-Loaner Board Wear Rates: \* = p <.05; \*\* = p <.01; \*\*\* = p < .001; \*\*\*\* = p < .0001  
Wear Rates shown for loaner board and non-loaner board sites control for covariates of age, gender, general boat type, size of boat, activity and water temperature.

## Type of Power Boats

Among adults on all types of power boats combined, 11% at sites with loaner boards wore life jackets versus 9% at sites without boards (**Table C3**). When considering specific types of power boats loaner board sites showed higher wear rates than non-loaner board sites for skiffs, cabin cruisers and PWCs. For adults on skiffs at loaner board sites, 20% wore life jackets compared to 11% at non-loaner board sites. Four percent on cabin cruisers at loaner board sites wore compared to 2% at non-loaner board sites. Nearly 100% of adults on PWCs at loaner board sites wore life jackets, compared to 94% at non-loaner board sites. However, for the most popular type of power boat, speedboats, there were no significant differences in wear rates based on loaner board status.

**Table C3.**  
**2014 Loaner Board Sites versus Non-Loaner Board Sites Adult Wear Rates**  
**by Types of Power Boats**

<b>Adult Wear Rates By Types of Power Boats</b>	<b>No Loaner Boards</b>	<b>Loaner Boards</b>	<b>All Sites</b>
<b>All Power Boats (% Wearing)</b>	9.4%	10.5% *	9.9%
. . . <b>N Total Observed</b>	4,195	3,435	7,630
<b>Skiffs (% Wearing)</b>	11.0%	19.6%**	15.6%
. . . <b>N Total Observed</b>	338	398	736
<b>Speedboats (% Wearing)</b>	3.1%	3.6%	3.4%
. . . <b>N Total Observed</b>	2,424	2,230	4,654
<b>Cabin Cruiser (% Wearing)</b>	1.9%	4.2% *	2.6%
. . . <b>N Total Observed</b>	1,014	475	1,489
<b>Pontoon (% Wearing)</b>	1.7%	3.6%	2.4%
. . . <b>N Total Observed</b>	154	93	247
<b>Powered Inflatables (% Wearing)</b>	35.8%	42.9%	37.3%
. . . <b>N Total Observed</b>	59	16	75
<b>PWCs (% Wearing)</b>	93.7%	99.1% **	96.5%
. . . <b>N Total Observed</b>	206	221	427

Note--Significance Tests between Loaner Board and Non-Loaner Board Wear Rates: \* = p <.05; \*\* = p <.01; \*\*\* = p < .001; \*\*\*\* = p < .0001  
Wear Rates shown for loaner board and non-loaner board sites control for covariates of age, gender, general boat type, size of boat, activity and water temperature.

## Types of Paddle Craft

Among adults on all types of paddle craft combined, 68% at sites with loaner boards wore life jackets versus 56% at sites without boards, with differences among those on paddled inflatables/rafts (**Table C4**). What is interesting, however, is that for specific types of paddleboards there are no significant difference with the exception of adults on paddled inflatables at loaner board sites, 26% wore life jackets compared to 4% at non-loaner board sites. The significant finding for all paddle craft combined is due to the differences in the distribution of types of paddle craft at the two types of sites; mainly non-loaner board sites saw more canoes and rowboats whereas the loaner board sites saw a greater proportion of kayaks (with their higher wear rates).

**Table C4**  
**2014 Loaner Board Sites versus Non-Loaner Board Sites Adult Wear Rates**  
**by Types of Paddle Craft**

<b>Adult Wear Rates By Types of Paddle craft</b>	<b>No Loaner Boards</b>	<b>Loaner Boards</b>	<b>All Sites</b>
<b>All Paddle craft (% Wearing)</b>	55.6%	68.0% **	58.2%
. . . <b>N Total Observed</b>	590	162	752
<b>Paddled Inflatable/Raft (% Wearing)</b>	3.9%	26.4% *	5.4%
. . . <b>N Total Observed</b>	136	11	147
<b>Canoe (% Wearing)</b>	42.8%	65.0%	43.4%
. . . <b>N Total Observed</b>	81	2	83
<b>Kayak (% Wearing)</b>	83.1%	79.2%	82.0%
. . . <b>N Total Observed</b>	267	105	372
<b>Rowboat (% Wearing)</b>	33.3%	0%	21.7%
. . . <b>N Total Observed</b>	18	5	23
<b>Paddleboards (% Wearing)</b>	68.4%	61.0%	66.1%
. . . <b>N Total Observed</b>	88	39	127

Note--Significance Tests between Loaner Board and Non-Loaner Board Wear Rates: \* = p < .05; \*\* = p < .01; \*\*\* = p < .001; \*\*\*\* = p < .0001  
Wear Rates shown for loaner board and non-loaner board sites control for covariates of age, gender, general boat type, size of boat, activity and water temperature.

## Types of Sailboats

Among adults on all types of sailboats combined, 48% at sites with loaner boards wore life jackets versus 24% at sites without boards (**Table C5**). For adults on day sailors, 39% at loaner board sites wore a life jacket, compared to 78% at sites without boards (although the total number of adults on day sailors observed was very small so this result should be viewed with extreme caution). Among those on cabin sailboats at loaner board sites, 47% wore life jackets compared to 18% at non-loaner board sites.

**Table C5.**  
**2014 Loaner Board Sites versus Non-Loaner Board Sites Adult Wear Rates**  
**by Types of Sail Boats**

<b>Adult Wear Rates By Types of Sail Boats</b>	<i>No Loaner Boards</i>	<i>Loaner Boards</i>	<i>All Sites</i>
<b>All Sail Boats (% Wearing)</b> ... <b>N Total Observed</b>	23.7% 217	47.9%*** 62	29.0% 279
<b>Day Sailors (% Wearing)</b> ... <b>N Total Observed</b>	78.3% 21	38.9%* 4	72.0% 25
<b>Cabin Sailboats (% Wearing)</b> ... <b>N Total Observed</b>	18.3% 196	46.7%**** 58	24.8% 254

Note--Significance Tests between Loaner Board and Non-Loaner Board Wear Rates: \* = p < .05; \*\* = p < .01; \*\*\* = p < .001; \*\*\*\* = p < .0001  
Wear Rates shown for loaner board and non-loaner board sites control for covariates of age, gender, general boat type, size of boat, activity and water temperature.



## Boat Size

Among adults on boats of all size categories, except those 21-26 feet in length, wear rates were significantly higher at sites with loaner boards than at sites without loaner boards (**Table C6**). For boats under 16 feet, 64% of adults at loaner board sites wore life jackets compared to 52% at non-loaner board sites. For adults on boats 16-21feet, 9% at loaner board sites versus 7% at non-loaner board sites wore life jackets. Also, a much higher percentage of adults on larger sized boats 26+ feet at loaner board sites wore life jackets (11%) versus 4% at non-loaner board sites.

**Table C6.**  
**2014 Loaner Board Sites versus Non-Loaner Board Sites Adult Wear Rates by Boat Size**

<b>Adult Wear Rates By Size of Boat</b>	<i>No Loaner Boards</i>	<i>Loaner Boards</i>	<i>All Sites</i>
<b>Boat Size &lt;16 ft (% Wearing)</b>	52.0%	63.9%****	56.5%
. . . <b>N Total Observed</b>	916	558	1474
<b>Boat Size 16-20.9ft (% Wearing)</b>	6.8%	9.2%**	8.0%
. . . <b>N Total Observed</b>	1799	1808	3607
<b>Boat Size 21-25.9ft (% Wearing)</b>	3.7%	4.3%	4.0%
. . . <b>N Total Observed</b>	1470	1101	2571
<b>Boat Size 26+ft (% Wearing)</b>	3.8%	10.9%****	5.1%
. . . <b>N Total Observed</b>	821	192	1013

Note--Significance Tests between Loaner Board and Non-Loaner Board Wear Rates: \* = p <.05; \*\* = p <.01; \*\*\* = p < .001; \*\*\*\* = p < .0001  
Wear Rates shown for loaner board and non-loaner board sites control for covariates of age, gender, general boat type, size of boat, activity and water temperature.

## Boat Activity

Life jacket wear among adults were higher at loaner board sites than non-loaner board sites regardless of boating activity in situations where mandatory regulations were not in place (**see Table C7**). Persons being towed or participants in waterskiing sports are mandated to wear; and as such, 100% wear was observed in both types of sites. Among those fishing/intending to fish, 15% at loaner board sites wore life jackets versus 9% at sites without boards. For adults engaged in all other types of boating activities (predominantly pleasure boating), 17% at loaner board sites wore life jackets versus 13% at sites without boards.

**Table C7.**  
**2014 Loaner Board Sites versus Non-Loaner Board Sites Adult Wear Rates**  
**by Boat Activity**

<b>Adult Wear Rates By Boat Activity</b>	<i>No Loaner Boards</i>	<i>Loaner Boards</i>	<i>All Sites</i>
<b>Fishing/Intent to Fish (% Wearing)</b>	9.2%	15.4%**	13.0%
. . . <b>N Total Observed</b>	406	636	1,042
<b>Persons Being Towed (% Wearing)</b>	100%	100%	100%
. . . <b>N Total Observed</b>	15	17	32
<b>All other activities (% Wearing)</b>	13.4%	16.5% ****	14.6%
. . . <b>N Total Observed</b>	4,585	3,006	7,591

Note--Significance Tests between Loaner Board and Non-Loaner Board Wear Rates: \* = p <.05; \*\* = p <.01; \*\*\* = p < .001; \*\*\*\* = p < .0001  
Wear Rates shown for loaner board and non-loaner board sites control for covariates of age, gender, general boat type, size of boat, activity and water temperature.

## Water Temperature

Adult life jacket wear rates were higher at loaner board sites than non-loaner board sites regardless of water temperature (see Table C8). Overall rates were higher when water temperatures were lower. When boating in waters with temperatures less than 60 degrees, 25% of adults at loaner board sites wore life jackets versus 19% at non-loaner board sites. When water temperatures were between 60-69 degrees, 21% of adults at loaner board sites wore life jackets versus 11% at non-board sites. When temperatures were 70 degrees or above, 15% of adults at loaner board sites wore life jackets versus 13% at non-board sites.

**Table C8.**  
**2014 Loaner Board Sites versus Non-Loaner Board Sites Adult Wear Rates**  
**by Water Temperature**

<b>Adult Wear Rates By Water Temperature</b>	<b>No Loaner Boards</b>	<b>Loaner Boards</b>	<b>All Sites</b>
<b>Less than 60 degrees (% Wearing)</b>	19.4%	24.8%**	22.3%
<b>. . . N Total Observed</b>	651	772	1,423
<b>60 to 69 degrees (% Wearing)</b>	11.4%	20.8%****	12.1%
<b>. . . N Total Observed</b>	2,482	184	2,666
<b>Over 70 degrees (% Wearing)</b>	12.8%	14.7%*	13.9%
<b>. . . N Total Observed</b>	1,873	2,703	4,576

Note--Significance Tests between Loaner Board and Non-Loaner Board Wear Rates: \* = p < .05; \*\* = p < .01; \*\*\* = p < .001; \*\*\*\* = p < .0001  
Wear Rates shown for loaner board and non-loaner board sites control for covariates of age, gender, general boat type, size of boat, activity and water temperature.

## Type of Water Body

Life jacket wear among adults were similarly higher at loaner board sites than non-loaner board sites regardless of the type of body of water (**see Table C9**), but at lakes/ponds or reservoirs this difference was not statistically significant. At bays/inlets or the sound, wear rates were higher at loaner board sites (24%) compared to non-loaner board sites (19%). On rivers the difference was even greater with 18% wearing at loaner board sites and 7% at non-loaner board sites.

**Table C9.**  
**2014 Loaner Board Sites versus Non-Loaner Board Sites Adult Wear Rates**  
**by Type of Body of Water**

<b>Adult Wear Rates By Type of Body of Water</b>	<i>No Loaner Boards</i>	<i>Loaner Boards</i>	<i>All Sites</i>
<b>Bay, Inlet or Sound (% Wearing)</b>	18.7%	23.7% **	20.9%
. . . <b>N Total Observed</b>	967	772	1739
<b>River, Stream, Creek, Canal (% Wearing)</b>	7.4%	18.3% ****	14.9%
. . . <b>N Total Observed</b>	215	464	679
<b>Lake, Pond, Reservoir (% Wearing)</b>	12.8%	13.3%	13.0%
. . . <b>N Total Observed</b>	3,824	2,423	6247

Note--Significance Tests between Loaner Board and Non-Loaner Board Wear Rates: \* = p <.05; \*\* = p <.01; \*\*\* = p <.001; \*\*\*\* = p <.0001  
Wear Rates shown for loaner board and non-loaner board sites control for covariates of age, gender, general boat type, size of boat, activity and water temperature.



## **Air Temperature**

Adult life jacket wear rates were significantly higher at loaner board sites than non-loaner board sites when air temperatures were below 70 degrees or 90 degrees or above (**see Table C10**). When air temperatures were less than 70 degrees, 19% of adults at loaner board sites wore life jackets versus 7% at non-loaner board sites. When temperatures were 90 degrees or above, 24% of adults at loaner board sites wore life jackets versus 12% wearing at non-board sites. When temperatures were in the middle ranges (70 degrees to 89 degrees) wear rates were not significantly different.

**Table C10.**  
**2014 Loaner Board Sites versus Non-Loaner Board Sites Adult Wear Rates**  
**by Air Temperature**

<b>Adult Wear Rates By Air Temperature</b>	<i>No Loaner Boards</i>	<i>Loaner Boards</i>	<i>All Sites</i>
<b>Less than 70 Degrees (% Wearing)</b> . . . N Total Observed	7.0% 1,678	18.9% **** 393	9.3% 2,071
<b>70 to 79 Degrees (% Wearing)</b> . . . N Total Observed	16.3% 1,635	16.3% 1,984	16.3% 3,619
<b>80 to 89 Degrees (% Wearing)</b> . . . N Total Observed	15.7% 1503	17.2% 1,061	16.3% 2,564
<b>90 Degrees or Above (% Wearing)</b> . . . N Total Observed	11.6% 190	24.4% * 221	18.5% 411

Note--Significance Tests between Loaner Board and Non-Loaner Board Wear Rates: \* = p < .05; \*\* = p < .01; \*\*\* = p < .001; \*\*\*\* = p < .0001  
Wear Rates shown for loaner board and non-loaner board sites control for covariates of age, gender, general boat type, size of boat, activity and water temperature.

## Current Strength

Adult life jacket wear rates were higher at loaner board sites than non-loaner board sites when water current conditions were weak or strong (**see Table C11**). When boating in weak or no current, 15% of adults at loaner board sites wore life jackets versus 12% at non-loaner board sites. When water current conditions were strong 25% of adults at loaner board sites wore life jackets versus 7% at non-board sites. A marginally significant wear rate difference was observed when water current conditions were moderate.

**Table C11.**  
**2014 Loaner Board Sites versus Non-Loaner Board Sites Adult Wear Rates**  
**by Current Strength**

<b>Adult Wear Rates By Current Strength</b>	<i>No Loaner Boards</i>	<i>Loaner Boards</i>	<i>All Sites</i>
<b>Weak or None(% Wearing)</b>	12.8%	14.3% *	13.4%
<b>. . . N Total Observed</b>	4,329	2,668	6,997
<b>Moderate (% Wearing)</b>	21.2%	27.0% (ns p<.14)	24.0%
<b>. . . N Total Observed</b>	462	438	900
<b>Strong (% Wearing)</b>	7.4%	19.5% ****	16.1%
<b>. . . N Total Observed</b>	215	553	768

Note--Significance Tests between Loaner Board and Non-Loaner Board Wear Rates: \* = p <.05; \*\* = p <.01; \*\*\* = p <.001; \*\*\*\* = p <.0001  
Wear Rates shown for loaner board and non-loaner board sites control for covariates of age, gender, general boat type, size of boat, activity and water temperature.

## Wind Speed

Adult life jacket wear rates were higher at loaner board sites than non-loaner board sites while winds were breezy (2-5 knots) or windy (6 + knots) (**see Table C12**). Wear rates were around 13% overall when wind speed was calm. When wind speeds were breezy, wear rates were 18% at loaner board sites compared to 14% at non-loaner board sites. And when it was windy, wear rates were 22% at loaner board sites and 16% at non-loaner board sites.

**Table C12.**  
**2014 Loaner Board Sites versus Non-Loaner Board Sites Adult Wear Rates**  
**by Wind Speed**

<b>Adult Wear Rates By Wind Speed</b>	<i>No Loaner Boards</i>	<i>Loaner Boards</i>	<i>All Sites</i>
<b>Calm (0-1 knot) (% Wearing)</b>	13.2%	12.4%	13.0%
<b>. . . N Total Observed</b>	3,063	1,210	4,273
<b>Breezy (2-5 knots) (% Wearing)</b>	13.8%	17.7% ****	16.2%
<b>. . . N Total Observed</b>	1,604	2,334	3938
<b>Windy (6+ knots) (% Wearing)</b>	16.3%	21.5% *	18.9%
<b>. . . N Total Observed</b>	339	115	454

Note--Significance Tests between Loaner Board and Non-Loaner Board Wear Rates: \* = p <.05; \*\* = p <.01; \*\*\* = p < .001; \*\*\*\* = p < .0001  
Wear Rates shown control for covariates of age, gender, general boat type, size of boat, activity and water temperature.

## Summary of Loaner Board Findings

<b>Conditions Where Loaner Board Presence is associated with Higher Wear Rates</b>	<b>Conditions Where No Difference between Loaner Board sites and Non-Loaner Board Sites</b>
<p>Adults <b>(all findings below refer to Adults Only)</b></p> <p>Males and Females</p> <p>All powerboats combined and individually for Skiffs, Cabin Cruisers, PWCs</p> <p>Cabin Sailboats (day sailors n’s too small to determine)</p> <p>Less than 16 feet; 16- 21 feet and more than 26 feet in length</p> <p>Fishing/Intent to Fish and Pleasure boating</p> <p>Any water temperature</p> <p>On bays, sound or rivers</p> <p>Air Temperature less than 70 degrees or greater than 89 degree</p> <p>Weak or Strong currents</p> <p>Breezy (2-5 knots) or Windy (6+ knots)</p>	<p>Children 0-12 and Teens 13-17</p> <p><b>(all findings below refer to Adults Only)</b></p> <p>Adults on speedboats or pontoon boats or powered inflatables</p> <p>Adults on kayaks or paddleboards (other paddle craft n’s are too small to determine)</p> <p>Length between 21 to 26 feet</p> <p>Persons Being Towed behind a boat</p> <p>Lakes or reservoirs</p> <p>Air Temperatures between 71 and 89</p> <p>Moderate currents</p> <p>Calm (0 or 1 knot)</p>

## Summary of Loaner Board versus Non-Loaner Board Site Comparison

The wear rates at sites in which loaner boards are present show higher wear rates for a wide variety of circumstances but not for all. Children's and teenagers' wear rates are not influenced by loaner boards. Particularly for children wear rates are very high given the legal mandates for wearing.

Adults show increased wear rates for both genders; on some power boats but notably not for the most popular power boat—speedboats; for cabin sailboats, shorter and longer boat lengths, for all activities (except no differences for mandated towing circumstances); all water temperatures, on bays, the sound and rivers but not on lakes or reservoirs, cool or warm air temperatures, weak and strong currents but not moderate ones, and breezy or windy conditions but not calm ones.

For the 2014 analyses some situations could not be reliably tested as to whether wear rates were affected by the presence of loaner boards because of small n's. This was particularly true for day sailors and canoes. Future site selection should add some sites that would boost the observation numbers for day sailors and canoes at both types of sites.

Although these analyses controlled for differences between the types of sites on a variety of covariates, it is still true that these comparisons are made at one point in time but try to make an inference that the presence of the loaner board is what accounts for these differences. A stronger basis for making this attribution would be data that were collected at two points in time; once before the loaner board is put in and once afterwards. Candidates for these types of analyses would be future observations at some of the current sites without loaner boards after loaner boards are put in place. Also, if plans are being made to add a loaner board at some sites, then it would be useful to conduct observations both before and after the boards are placed.



## D. Washington 2014 Findings Compared to Washington 2010 Findings

Data are available from a similar study conducted in the State of Washington during 2010 and therefore offered the opportunity to gauge whether there have been any changes in wear rates over that time period. It should be emphasized that the 2010 study was not conducted in exactly the same way as the 2014 study. In 2010 data were collected by a large number of observers for two, 90 minute periods during either the last weekend in August or the first weekend in September (the Labor Day weekend). In contrast, the 2014 data were collected by a small number of teams of observers who conducted observations for a four hour period on one day during either a July weekend or an August weekend. Also not all variables were the same, although there was much overlap. For instance, in 2014 we distinguished between two types of “open motorboats”—skiffs and speedboats. In 2010 this distinction was not made and the observations were coded as just the overall “open motorboat” category. As we saw from the 2014 data shown be above in the previous two sections, there are substantial differences in wear rates on skiffs compared to speedboats, and therefore a wear rates for the combined category is highly susceptible to the proportion or mix of skiffs and speedboats observed.

The analyses presented in this section adjust for differences in the distribution of types of boaters, types of boat characteristics and types of environmental conditions that differed between the 2010 and 2014 studies. This adjustment was implemented by weighting the 2010 data on these various characteristics to match the distributions in the 2014 study. All tables have the same column format, with information shown for children 0-12, teenagers 13-17, adults 18 or over and then for all ages combined.

### All Boaters by Age and Age/Gender Differences

Life jacket wear significantly improved for all children 0-12 between 2010 and 2014 (**Table D1**). Approximately 91% of children wore a life jacket while boating in 2014 versus 81% in 2010; these differences were true for both boys and girls.

There were no significant differences for all teens combined, but use decreased for female teens from 55% in 2010 to 45% in 2014.

All adults as well as both female and male adults showed decreasing life jacket wear in 2014, with the overall adult rate decreasing from 17% to 15%.

For all ages combined overall and for males and females there were not statistically significant results primarily because of the different directions of change for children compared to adults.

**Table D1. Wear Rates by Boater Age and Gender  
2010 versus 2014 WA**

<b>Wear Rates By Boater Age and Gender</b>	<b>Children 0-12</b>		<b>Teens 13-17</b>		<b>Adults 18+</b>		<b>All Boaters</b>	
	<b>2010</b>	<b>2014</b>	<b>2010</b>	<b>2014</b>	<b>2010</b>	<b>2014</b>	<b>2010</b>	<b>2014</b>
<b>All Boaters (% Wearing)</b>	79.2	90.5****	47	44.8	17.4	14.7***	25.8	24.6
<b>. . . N Total Observed</b>	525	1,091	446	678	4,045	8,665	5,157	10,434
<b>All MALE Boaters (% Wearing)</b>	79.7	90.3****	40.2	44.8	17.4	14.7**	24.4	23.3
<b>. . . N Total Observed</b>	232	578	225	315	2,707	5,319	3,223	6,212
<b>All FEMALE Boaters (% Wearing)</b>	78.6	90.9****	53.2	44*	17.2	14.6*	27.7	26.3
<b>. . . N Total Observed</b>	248	507	212	357	1,318	3,333	1,827	4,197

Note--Significance Tests between 2010 and 2014 Washington Wear Rates: \* = p <.05; \*\* = p <.01; \*\*\* = p <.001; \*\*\*\* = p <.0001  
The sum of "N Total Observed" across the three age groups may not add up to total "All boaters" due to missing age data. Only those with a PFD status were included.

## **Types of Boats**

Changes in wear rates for different general types of boats showed different results. For all power boats, which are the predominant type of boat observed in Washington, wear rates increased for children (78% to 90%); was not statistically significantly different for teenagers (46% to 42%); and decreased for adults (13% to 10%). For all ages combined on power boats there was a small but statistically significant decline in wear rates from 22% to 21% because of the different directions of change for children and adults.

For paddle craft there were no statistically significant changes but the direction of change mirrored those of power boats for adults and all boaters combined.

For sail boats again there were no statistically significant changes, but in this case small n's in several cells made comparisons not reliable particularly for children and teenagers.

**Table D2. Wear Rates by Types of Boats  
2010 versus 2014 WA**

<b>Wear Rates By Types of Boats</b>	<i>Children 0-12</i>		<i>Teens 13-17</i>		<i>Adults 18+</i>		<i>All Boaters</i>	
	<i>2010</i>	<i>2014</i>	<i>2010</i>	<i>2014</i>	<i>2010</i>	<i>2014</i>	<i>2010</i>	<i>2014</i>
<b>All Power Boats (% Wearing)</b>	77.9	90.4****	46.2	42.4	13.2	9.9****	22.4	20.7*
<b>. . . N Total Observed</b>	475	991	388	602	3512	7630	4513	9223
<b>All Paddlecraft (% Wearing)</b>	97.8	90.0	60.0	63.5	62.9	58.2	65.5	61.5
<b>. . . N Total Observed</b>	46	80	49	63	410	752	507	895
<b>All Sail Boats (% Wearing)</b>	100	95.0	48.2	81.8	27.6	29.0	29.6	35.2
<b>. . . N Total Observed</b>	2	20	6	11	114	279	123	310

Note--Significance Tests between 2010 and 2014 Washington Wear Rates: \* = p <.05; \*\* = p <.01; \*\*\* = p <.001; \*\*\*\* = p <.0001.  
Some rows "N Total Observed" may not add up to total "All boaters" due to missing age. Only those with a PFD status were included.

## **Boat Size**

Wear rates by boat size show different patterns of change. For small boats under 16 feet, wear rates are basically the same for children and teenagers but increase for adults (51% to 57%) and a similar sized change when all boater ages are combined (57% to 61%).

For boats of middle sizes (16 to 21 feet and 21 feet to 26 feet) the patterns are different. Wear rates increase significantly for children (83% to 93% and 66% to 87% for the two size categories) whereas they decline for adults (13% to 8% and 9% to 4% for the two size categories). When looking at the changes for all boaters combined, the different direction of change results in a small but statistically significant change for all boaters (23% to 21% and 17% to 15% for the two size categories).

For boats of larger sizes (26 feet or more) there are no significant changes in wear rates between 2010 and 2014.

**Table D3. Wear Rates by Boat Size  
2010 versus 2014 WA**

<b>Wear Rates By Size of Boat</b>	<i>Children 0-12</i>		<i>Teens 13-17</i>		<i>Adults 18+</i>		<i>All Boaters</i>	
	<i>2010</i>	<i>2014</i>	<i>2010</i>	<i>2014</i>	<i>2010</i>	<i>2014</i>	<i>2010</i>	<i>2014</i>
<b>Boat Size &lt;16 ft (% Wearing)</b>	94.0	94.5	74.2	73.0	51.4	56.5*	56.9	61.3*
<b>. . . N Total Observed</b>	123	164	137	141	1059	1474	1342	1779
<b>Boat Size 16-20.9ft (% Wearing)</b>	82.8	92.7****	38.6	40.8	12.5	8.0****	23.0	20.7*
<b>. . . N Total Observed</b>	256	547	192	316	1915	3607	2428	4470
<b>Boat Size 21-25.9ft (% Wearing)</b>	66.3	86.9****	41.6	31.1	9.4	4.0****	17.4	14.5*
<b>. . . N Total Observed</b>	114	328	88	196	756	2571	985	3095
<b>Boat Size 26+ft (% Wearing)</b>	76.0	76.9	39.8	44.0	4.7	5.1	9.0	9.4
<b>. . . N Total Observed</b>	30	52	25	25	297	1013	377	1090

Note--Significance Tests between 2010 and 2014 Washington Wear Rates: \* = p <.05; \*\* = p <.01; \*\*\* = p <.001; \*\*\*\* = p <.0001  
Some rows "N Total Observed" may not add up to total "All boaters" due to missing age. Only those with a PFD status were included.

## **Boating Activity**

Wear rates by type of boating activity also showed different patterns of change. For persons being towed in some type of water sport wear rates were not statistically significant for each of the age groups although partially this is due to small n's within each age category. When all boaters are combined, there is a statistically significant increase from 95% to 99%.

For fishing and intent to fish activities there are no significant changes for children or adults but a significant increase for teenagers (32% to 56%).

For all other activities (primarily pleasure boating) the wear rate changes mirror the general finding of increase for children and decreases for adults, but when all ages are combined there are no statistically significant changes.

**Table D4. Wear Rates by Boat Activity  
2010 versus 2014 WA**

<b>Wear Rates By Boat Activity</b>	<i>Children 0-12</i>		<i>Teens 13-17</i>		<i>Adults 18+</i>		<i>All Boaters</i>	
	<i>2010</i>	<i>2014</i>	<i>2010</i>	<i>2014</i>	<i>2010</i>	<i>2014</i>	<i>2010</i>	<i>2014</i>
<b>Fishing/Intent to Fish (% Wearing)</b>	86.9	90.5	32.0	56.1*	14.9	13.0	20.1	19.9
. . . <b>N Total Observed</b>	50	74	45	57	797	1042	901	1173
<b>Persons Being Towed (% Wearing)</b>	100	100	97.3	98.4	91.2	100	95.3	99.3*
. . . <b>N Total Observed</b>	31	58	39	61	45	32	127	151
<b>All other activities (% Wearing)</b>	76.8	89.9****	42.9	37.9 (p<.13)	17.0	14.6**	25.1	24.0
. . . <b>N Total Observed</b>	437	959	356	560	3154	7591	4067	9110

Note--Significance Tests between 2010 and 2014 Washington Wear Rates: \* = p <.05; \*\* = p <.01; \*\*\* = p <.001; \*\*\*\* = p <.0001  
Some rows "N Total Observed" may not add up to total "All boaters" due to missing age. Only those with a PFD status were included.



## Water Temperature

Wear rate changes by water temperatures also show different directions of changes. For cold water situations (less than 60 degrees), wear rates have gone up for all ages groups; children (82% to 89%  $p < .12$ ); teenagers (40% to 52%  $p < .16$ ); adults (18% to 22%  $p < .05$ ); and all boater ages combined (25% to 29%  $p < .05$ ).

However, for warmer water temperatures between 60 to 69 degrees adults decrease from 16% to 12% and then all boaters combined decrease from 26% to 20%.

For water temperatures above 70 degrees children's wear rates increase from 69% to 92% where as adults decrease from 19% to 14%. When all boater ages are combined the rates are not significantly different due to the opposing directions of the changes for children and adults.

**Table D5. Wear Rates by Water Temperature  
2010 versus 2014 WA**

<b>Wear Rates By Water Temperature</b>	<i>Children 0-12</i>		<i>Teens 13-17</i>		<i>Adults 18+</i>		<i>All Boaters</i>	
	<i>2010</i>	<i>2014</i>	<i>2010</i>	<i>2014</i>	<i>2010</i>	<i>2014</i>	<i>2010</i>	<i>2014</i>
<b>Less than 60 degrees (% Wearing)</b>	81.6	89.3 (p<.12)	39.9	51.5 (p<.16)	18.4	22.3*	25.0	29.0*
<b>. . . N Total Observed</b>	73	122	55	97	790	1423	923	1642
<b>60 to 69 degrees (% Wearing)</b>	82.3	86.4	46.3	42.6	16.1	12.1****	25.8	20.3****
<b>. . . N Total Observed</b>	309	273	261	176	2159	2666	2791	3115
<b>Over 70 degrees (% Wearing)</b>	69.0	92.2****	52.0	44.2	19.3	13.9****	26.2	25.7
<b>. . . N Total Observed</b>	143	696	130	405	1096	4576	1443	5677

Note--Significance Tests between 2010 and 2014 Washington Wear Rates: \* = p <.05; \*\* = p <.01; \*\*\* = p <.001; \*\*\*\* = p <.0001  
Some rows "N Total Observed" may not add up to total "All boaters" due to missing age. Only those with a PFD status were included.

## **Air Temperature**

For cooler air temperatures (less than 70 degrees) wear rates go up for children (72% to 91%) and down for adults (17% to 9%) and also down for all boater ages combined (24% to 17%).

For temperatures from 70 to 79 degrees only children show a significant increase in wear rates (76% to 89%).

For air temperatures above 80 degrees children, adults and all boaters show no statistically significant differences but for teenagers there is a significant decline from 53% to 42%.

**Table D6. Wear Rates by Air Temperature  
2010 versus 2014 WA**

<b>Wear Rates By Air Temperature</b>	<i>Children 0-12</i>		<i>Teens 13-17</i>		<i>Adults 18+</i>		<i>All Boaters</i>	
	2010	2014	2010	2014	2010	2014	2010	2014
<b>Less than 70 Degrees (% Wearing)</b>	71.8	90.6****	49.0	42.4	17.3	9.3****	23.6	16.9****
. . . <b>N Total Observed</b>	149	181	120	92	1391	2071	1689	2344
<b>70 to 79 Degrees (% Wearing)</b>	76.0	88.9****	43.0	48.5	17.9	16.3	26.3	25.3
. . . <b>N Total Observed</b>	238	404	232	293	1730	3619	2296	4316
<b>80 Degrees or Above (% Wearing)</b>	92.3	91.7	53.4	42.0*	16.5	16.6	27.6	28.6
. . . <b>N Total Observed</b>	138	506	94	293	920	2975	1168	3774

Note--Significance Tests between 2010 and 2014 Washington Wear Rates: \* = p <.05; \*\* = p <.01; \*\*\* = p <.001; \*\*\*\* = p <.0001

^In 2010, no observations were 90 degrees or above and only a small percentage of observations in 2014 were 90 degrees or above; therefore, the latter were grouped into the 80 degrees or above category,

## Current Strength

There are no simple relationships between current strength and wear rates (**see Table D7**). For children under the age of 13 wear rates are higher in 2014 than in 2010. For teenagers wear rates are lower in 2014 than for 2010 for weak or no current situations. For adults wear rates are lower in 2014 than 2010 when currents are weak but higher when currents are moderate.

**Table D7. Wear Rates by Current Strength  
2010 versus 2014 WA**

<b>Wear Rates By Current Strength</b>	<i>Children 0-12</i>		<i>Teens 13-17</i>		<i>Adults 18+</i>		<i>All Boaters</i>	
	<i>2010</i>	<i>2014</i>	<i>2010</i>	<i>2014</i>	<i>2010</i>	<i>2014</i>	<i>2010</i>	<i>2014</i>
<b>Weak or None(% Wearing)</b>	72.8	91.3****	54.6	46.6*	21.3	13.4****	28.3	23.7****
<b>. . . N Total Observed</b>	224	896	244	507	1975	6997	2477	8400
<b>Moderate (% Wearing)</b>	83.9	87.2	38.8	39.8	13.7	24.0****	23.7	31.7****
<b>. . . N Total Observed</b>	257	109	155	103	1794	900	2276	1112
<b>Strong (% Wearing)</b>	68.2	86.1*	35.3	39.7	14.7	16.1	20.2	24.4
<b>. . . N Total Observed</b>	33	86	47	68	231	768	347	922

Note--Significance Tests between 2010 and 2014 Washington Wear Rates: \* = p <.05; \*\* = p <.01; \*\*\* = p < .001; \*\*\*\* = p < .0001

## **Summary and Discussion of 2010 versus 2014 comparisons.**

The findings reported in this section are relatively consistent. Overall wear rates increased for children under 13 and these increases were seen for both girls and boys and in a wide variety of boat types, boat sizes, and environmental conditions. For adults, the overall wear rate decreased by a few percentage points and this difference was also seen for a wide variety of boaters, boat types, boat sizes and environmental conditions. When data were combined for all boaters (children, teens and adults), the patterns tended to mirror the patterns seen for adults, since there were many more adults observed than children or teens. We think it is useful to continue in the future to monitor wear rate trends separately for different aged groups of boaters since, as these analyses have shown, the patterns and directions of change may be different.

Four limitations exist for these analyses. One is that some cell sizes are small and so wear rate differences should be viewed with caution, even if the differences are statistically significant. The second limitation is that although care was taken in both 2010 and 2014 to replicate procedures used in JSI's national wear rates studies, it is still true that JSI was not responsible for the conduct of the 2010 study. The third limitation is that the sites and observation protocols were not identical across the two time periods. Many more observers were used in 2010 but each observer team observed only one or two sites and these observations were only conducted in the last weekend of August and the first weekend in September (Labor Day weekend). On the other hand, the 2014 observations were done by a smaller set of teams (mostly drawn from the 2010 teams), but who conducted observations at 4 to 5 sites and were done during the months of July and August. The fourth is that not all the sites were identical in both studies. Some of the 2010 sites did not yield many observations so these were dropped in 2014 and new sites substituted. Also, the four Washington State sites that were observed for the national study were included in the analyses for 2014 but not in 2010. In order to try to adjust for any systematic differences in the data collected by the two different studies, a set of covariates were used in the analyses, to remove those factors as an explanation for the results. The covariates included—age, gender, general boat type, boat size, boat activity and water temperature, all of which showed statistically significant differences between the 2010 and 2014 observation profiles.

## **E. A Comparison of WA 2014 Data to US National Data 2012-2014**

Tables in this section have a similar format in that Washington 2014 data is compared to National Data (for the period 2012-2014) within each of four groups--children 0-12; teenagers 13-17; adults 18+; and all boater ages combined. The tables present findings for all boaters within these groups and then also by subgroups of boaters, boat characteristics or weather (e.g. gender or boat length). Before making the comparisons, the two sets of data were compared on a variety of confounders. We found significant differences on the distribution on several characteristics between the two data sets. In order to remove any confounding effects in the test for differences and at the same time to keep the 2014 Washington data the same as it is presented in other parts of this report, the national data was weighted to mimic the Washington distributions on these characteristics. The weighting used the distributions of age, gender, general boat type (powerboat, paddle craft or sail boat), size of boat, boat activity and water temperature. Significance tests are shown between the Washington data and the U.S. National data within each age group. It should be noted that in these analyses all boat types are included; PWCs as well as all other boats. This is different than many of the tables in reports to the U.S. Coast Guard in which PWCs are reported on separately. In the narrative presentation of the results wear rates are rounded to the nearest whole number for ease of discussion.



## **All Boaters by Age and Age/Gender**

Comparison of wear rates within each of the age groups for all types of boats combined (**Table E1**) show that there are no significant differences between the Washington findings and the national results. Even when the age groups are divided into males and females there are no significant differences in wear rates between Washington and the national data.

**Table E1. Wear Rates by Boater Age & Gender  
2014 WA versus 2012-2014 National**

<b>Wear Rates By Boater Age &amp; Gender</b>	<i>Children 0-12</i>		<i>Teens 13-17</i>		<i>Adults 18+</i>		<i>All Boaters</i>	
	<i>WA 2014</i>	<i>US 2012-2014</i>	<i>WA 2014</i>	<i>US 2012-2014</i>	<i>WA 2014</i>	<i>US 2012-2014</i>	<i>WA 2014</i>	<i>US 2012-2014</i>
<b>All Boaters (% Wearing)</b>	90.5	88.8	44.8	44.5	14.7	14.3	24.6	24.0
<b>. . . N Total Observed</b>	1091	10716	678	6484	8665	103273	104343	120531
<b>All MALE Boaters (% Wearing)</b>	90.3	87.6	44.8	39.8	14.7	14.7	23.3	22.8
<b>. . . N Total Observed</b>	578	6133	315	3468	5319	64831	6212	74453
<b>All FEMALE Boaters (% Wearing)</b>	90.9	90.3	44.0	48.3	14.6	13.4	26.3	25.7
<b>. . . N Total Observed</b>	507	4504	357	2998	3333	38375	4197	45910

Note--Significance Tests between 2014 WA and 2012-2014 National Wear Rates: \* = p < .05; \*\* = p < .01; \*\*\* = p < .001; \*\*\*\* = p < .0001  
The sum of "N Total Observed" across the three age groups may not add up to total "All boaters" due to missing age data. Only those with a PFD status were included.

## **Types of Power Boats**

When wear rates for all power boats combined are compared between Washington and the national data there are no significant differences within age groups or for all ages combined (**See Table E2**). For specific types of power boats there are no significant differences for children or teenagers that are reliable. For adults Washington has higher wear rates for skiffs (16% vs 9%); cabin cruisers (3% vs 2%); and powered inflatables (37% vs 21%). Because adults make up the bulk of all boaters, these same differences are true for the “all boater” category.

**Table E2. Wear Rates by Types of Power Boats  
2014 WA versus 2012-2014 National**

<b>Wear Rates By Types of Power Boats</b>	<b>Children 0-12</b>		<b>Teens 13-17</b>		<b>Adults 18+</b>		<b>All Boaters</b>	
	<b>WA 2014</b>	<b>US 2012-2014</b>	<b>WA 2014</b>	<b>US 2012-2014</b>	<b>WA 2014</b>	<b>US 2012-2014</b>	<b>WA 2014</b>	<b>US 2012-2014</b>
<b>All Power Boats (% Wearing)</b>	90.4	88.9	42.4	41.5	9.9	10.2	20.7	20.9
<b>. . . N Total Observed</b>	991	9,676	602	5,466	7,630	87,180	9,223	102,379
<b>Skiffs (% Wearing)</b>	91.0	88.0	39.2	34.2	15.6	9.1****	23.0	17.7****
<b>. . . N Total Observed</b>	67	1875	51	971	736	20,846	854	23,702
<b>Speedboats (% Wearing)</b>	90.8	90.1	38.2	38.1	3.4	3.5	16.8	17.5
<b>. . . N Total Observed</b>	716	5,063	437	2,733	4,654	36,909	5807	44,734
<b>Cabin Cruiser (% Wearing)</b>	80.2	77.6	29.4	18.3	2.6	1.6**	8.0	6.5*
<b>. . . N Total Observed</b>	96	815	51	482	1,489	13481	1636	14,784
<b>Pontoon (% Wearing)</b>	92.9	86.3	23.1	33.9	2.4	2.1	19.3	15.2*
<b>. . . N Total Observed</b>	56	1,330	13	629	247	9,444	316	11,413
<b>Powered Inflatables (% Wearing)</b>	100	87.5	100	31.9*	37.3	21.4**	44.7	27.4***
<b>. . . N Total Observed</b>	7	68	3	39	75	795	85	902
<b>PWCs (% Wearing)</b>	100	99.1	100	98.8	96.5	96.6	97.1	97.1
<b>. . . N Total Observed</b>	49	520	47	611	427	5,505	523	6,638

Note--Significance Tests between 2014 WA and 2012-2014 National Wear Rates: \* = p < .05; \*\* = p < .01; \*\*\* = p < .001; \*\*\*\* = p < .0001  
Other categories of boats using power propulsion (e.g. houseboats) are not shown due to small numbers, but are included in the "all power boats" category

## **Types of Paddle Craft**

Boaters on all paddle craft combined in Washington state had significantly higher wear rates (62%) overall than those in the US (55%) (**see Table E3**). However, this difference was due to differences in adult wear rates (58% vs 51%), since there were no significant differences for all paddle craft among children or teenagers.

For specific types of paddle craft, adult boaters on kayaks and stand-up paddleboards in Washington had higher wear rates than those in the US; kayaks (82% vs 73%); stand-up paddleboards (66% vs 49%). Similar differences were seen for the “all boater” category since adults make up the vast majority of boaters.

About one-third of all boaters on sailboats in Washington and across the US wore life jackets, with higher rates among those on day sailors (63%-79%) than those on cabin sailboats (19%-30%). Rates of life jacket use were higher among teens and adults on cabin sailboats in Washington than in the US (teens: 78% WA vs 31% US; adults: 25% WA vs 17% US).

**Table E3. Rates by Types of Paddle Craft  
2014 WA versus 2012-2014 National**

<b>Wear Rates By Types of Paddle Craft</b>	<b>Children 0-12</b>		<b>Teens 13-17</b>		<b>Adults 18+</b>		<b>All Boaters</b>	
	<b>WA 2014</b>	<b>US 2012-2014</b>	<b>WA 2014</b>	<b>US 2012-2014</b>	<b>WA 2014</b>	<b>US 2012-2014</b>	<b>WA 2014</b>	<b>US 2012-2014</b>
<b>All Paddle Craft (% Wearing)</b>	90.0	89.2	63.5	60.7	58.2	51.2***	61.5	55.4***
. . . <b>N Total Observed</b>	80	640	63	569	752	6662	895	7872
<b>Paddled Inflatable/Raft (% Wearing)</b>	64.7	77.8	44.4	41.8	5.4	26.8****	13.3	36.5****
. . . <b>N Total Observed</b>	17	202	9	188	147	1087	173	1477
<b>Canoe (% Wearing)</b>	100	96.8	80.0	55.7	43.4	30.5*	54.7	39.3**
. . . <b>N Total Observed</b>	18	195	5	119	83	1749	106	2063
<b>Kayak (% Wearing)</b>	97.0	90.8	85.0	80.6	82.0	72.5****	83.3	74.1****
. . . <b>N Total Observed</b>	33	200	20	224	372	3310	425	3735
<b>Rowboat (% Wearing)</b>	100	100	0.0	63.2	21.7	29.9	24.0	41.3
. . . <b>N Total Observed</b>	1	22	1	21	23	189	25	232
<b>Paddleboards (% Wearing)</b>	90.9	90.6	53.6	49.0	66.1	48.6***	65.7	51.4**
. . . <b>N Total Observed</b>	11	21	28	17	127	327	166	365

Note--Significance Tests between 2014 WA and 2012-2014 National Wear Rates: \* = p <.05; \*\* = p <.01; \*\*\* = p < .001; \*\*\*\* = p < .0001

## Types of Sail Boats

There were no significant differences in wear rates for all sail boats combined although for each age group the wear rates were somewhat higher in Washington than the national averages (**see Table E4**). However, for cabin sailboats the wear rates were significantly higher for teenagers (78% vs 31% even with small n's); adults (25% vs 17%) and for all boater ages combined (30% vs 19%). For day sailors the lack of significance in the differences is primarily due to the small number of observations conducted for this type of boat. In future years, efforts should be made to expand the day sailor observation opportunities.

**Table E4. Rates by Types of Sail Boats  
2014 WA versus 2012-2014 National**

<b>Wear Rates By Types of Sail Boats</b>	<i>Children 0-12</i>		<i>Teens 13-17</i>		<i>Adults 18+</i>		<i>All Boaters</i>	
	<i>WA</i>	<i>US</i>	<i>WA</i>	<i>US</i>	<i>WA</i>	<i>US</i>	<i>WA</i>	<i>US</i>
	<i>2014</i>	<i>2012-2014</i>	<i>2014</i>	<i>2012-2014</i>	<i>2014</i>	<i>2012-2014</i>	<i>2014</i>	<i>2012-2014</i>
<b>All Sail Boats (% Wearing)</b>	95.0	87.7	81.8	68.8	29.0	27.1	35.2	31.3
<b>. . . N Total Observed</b>	20	351	11	378	279	8,833	310	9,562
<b>Day Sailors (% Wearing)</b>	100	99.4	100	95.2	72.0	57.4	78.8	63.0
<b>. . . N Total Observed</b>	6	73	2	183	25	1,779	33	2,035
<b>Cabin Sailboats (% Wearing)</b>	92.9	82.8	77.8	31.2**	24.8	16.7***	30.0	19.4****
<b>. . . N Total Observed</b>	14	278	9	194	254	7,027	277	7,499

Note--Significance Tests between 2014 WA and 2012-2014 National Wear Rates: \* = p < .05; \*\* = p < .01; \*\*\* = p < .001; \*\*\*\* = p < .0001



## Boat Size

For boats of different sizes wear rates for the most part were not different in Washington compared to the national averages (see Table E5). In Washington as is true nationally, wear rates decrease as boat lengths increase. For adults and all boater ages combined in boats under 16 feet in length wear rates were higher in Washington than nationally (57% vs 52% for adults and 61% vs 58% for all boater ages combined). For children 0-12 years of age, wear rates were significantly higher for boats between 16 and 21 feet in length (93% vs 90%). For teenagers, there was a statistically significant wear rate on boats greater than 26 feet in length (44% vs 21%).

**Table E5. Wear Rates by Boat Size  
2014 WA versus 2012-2014 National**

<b>Wear Rates By Size of Boat</b>	<i>Children 0-12</i>		<i>Teens 13-17</i>		<i>Adults 18+</i>		<i>All Boaters</i>	
	<i>WA</i> 2014	<i>US</i> 2012-2014	<i>WA</i> 2014	<i>US</i> 2012-2014	<i>WA</i> 2014	<i>US</i> 2012-2014	<i>WA</i> 2014	<i>US</i> 2012-2014
<b>Boat Size &lt;16 ft (% Wearing)</b>	94.5	91.8	73.0	74.6	56.5	52.3**	61.3	57.7**
. . . <b>N Total Observed</b>	164	1,739	141	1,557	1,474	18,444	1,779	21,743
<b>Boat Size 16-20.9ft (% Wearing)</b>	92.7	89.8*	40.8	40.5	8.0	8.3	20.7	20.5
. . . <b>N Total Observed</b>	547	4,686	316	2,499	3,607	37,968	4,470	45,169
<b>Boat Size 21-25.9ft (% Wearing)</b>	86.9	87.7	31.1	32.3	4.0	4.5	14.5	15.0
. . . <b>N Total Observed</b>	328	3,300	196	1,818	2,571	29,922	3,095	35,074
<b>Boat Size 26+ft (% Wearing)</b>	76.9	76.4	44.0	20.6**	5.1	5.1	9.4	8.9
. . . <b>N Total Observed</b>	52	989	25	610	1,013	16,934	1,090	18,538

Note--Significance Tests between 2014 WA and 2012-2014 National Wear Rates: \* = p <.05; \*\* = p <.01; \*\*\* = p <.001; \*\*\*\* = p <.0001

## Boat Activity

Life jacket wear rates differed by the types of boating activity (**see Table E6**). Since persons being towed or engaged in waterskiing are mandated to wear, rates among this group were over 95% in both WA and the US. While there were no differences among children and teens; for adults, however, rates were 100% in WA compared to 88% nationally. Rates for all boaters reflected the adult differences.

Among all boater ages combined wear rates for those fishing or intending to fish, were higher in Washington (20%) than nationally (16%). This difference was due to significantly higher rates in Washington among teens (56% vs 36% US) and adults (13% vs 10% US).

For all other activities combined there were no statistically significant differences for any age group between Washington and the national rates.

**Table E6. Wear Rates by Boat Activity  
2014 WA versus 2012-2014 National**

<b>Wear Rates By Boat Activity</b>	<i>Children 0-12</i>		<i>Teens 13-17</i>		<i>Adults 18+</i>		<i>All Boaters</i>	
	<i>WA</i>	<i>US</i>	<i>WA</i>	<i>US</i>	<i>WA</i>	<i>US</i>	<i>WA</i>	<i>US</i>
	<i>2014</i>	<i>2012-2014</i>	<i>2014</i>	<i>2012-2014</i>	<i>2014</i>	<i>2012-2014</i>	<i>2014</i>	<i>2012-2014</i>
<b>Fishing/Intent to Fish (% Wearing)</b>	90.5	83.7	56.1	35.7**	13.0	10.3**	19.9	15.9**
<b>. . . N Total Observed</b>	74	811	57	591	1,042	13,903	1,173	15,312
<b>Persons Being Towed (% Wearing)</b>	100	98.9	98.4	98.8	100	88.4*	99.3	95.9*
<b>. . . N Total Observed</b>	58	658	61	463	32	538	151	1,664
<b>All other activities (% Wearing)</b>	89.9	88.5	37.9	40.3	14.6	14.4	24.0	23.8
<b>. . . N Total Observed</b>	959	9,247	560	5,430	7,591	88,832	9,110	103,555

Note--Significance Tests between 2014 WA and 2012-2014 National Wear Rates: \* = p <.05; \*\* = p <.01; \*\*\* = p <.001; \*\*\*\* = p <.0001

## Water Temperature

There were not many situations in which wear rates by water temperature were different in Washington compared to national averages (**see Table E7**). Adult (and therefore all boater ages combined) rates were lower in Washington when water temperatures were 60-69 degrees (12% vs 24%). Children's wear rates in waters over 70 degrees were higher in Washington compared to national averages (92% vs 89%).

**Table E7. Wear Rates by Water Temperature  
2014 WA versus 2012-2014 National**

<b>Wear Rates By Water Temperature</b>	<i>Children 0-12</i>		<i>Teens 13-17</i>		<i>Adults 18+</i>		<i>All Boaters</i>	
	<i>WA</i>	<i>US</i>	<i>WA</i>	<i>US</i>	<i>WA</i>	<i>US</i>	<i>WA</i>	<i>US</i>
	<i>2014</i>	<i>2012-2014</i>	<i>2014</i>	<i>2012-2014</i>	<i>2014</i>	<i>2012-2014</i>	<i>2014</i>	<i>2012-2014</i>
<b>Less than 60 degrees (% Wearing)</b>	89.3	84.3	51.5	62.0	22.3	21.0	29.0	26.3
<b>. . . N Total Observed</b>	122	105	97	89	1,423	2,073	1,642	2,267
<b>60 to 69 degrees (% Wearing)</b>	86.4	88.4	42.6	47.7	12.1	23.6****	20.3	31.5****
<b>. . . N Total Observed</b>	273	1,097	176	626	2,666	11,260	3,115	12,990
<b>Over 70 degrees (% Wearing)</b>	92.2	89.0**	44.2	44.0	13.9	13.1	25.7	23.2****
<b>. . . N Total Observed</b>	696	9,404	405	5,743	4,576	88,865	5,677	104,063

Note--Significance Tests between 2014 WA and 2012-2014 National Wear Rates: \* = p < .05; \*\* = p < .01; \*\*\* = p < .001; \*\*\*\* = p < .0001

## Air Temperature

Wear rates by air temperature are shown in **Table E8**. For children 0-12 there were no significant differences in wear rates between Washington and national averages. Some differences were found among teens. Teens in Washington had higher life jacket wear than those in the national sample when air temperatures were between 70-79 degrees (WA: 49% vs US: 41%) or 90 or above (WA: 59% vs US: 45%); however the teen wear rate was lower when air temperatures were 80-89 degrees at 39% in WA vs 46% US. For adults, life jacket wear rates were lower in WA when air temperatures were under 70 degrees (9% in WA vs 18% US), but higher when temperatures were 80 to 89 degrees (16% WA vs 15% US) or 90 degrees or above (19% WA vs 10% in US).

**Table E8. Wear Rates by Air Temperature  
2014 WA versus 2012-2014 National**

<b>Wear Rates By Air Temperature</b>	<i>Children 0-12</i>		<i>Teens 13-17</i>		<i>Adults 18+</i>		<i>All Boaters</i>	
	<i>WA 2014</i>	<i>US 2012-2014</i>	<i>WA 2014</i>	<i>US 2012-2014</i>	<i>WA 2014</i>	<i>US 2012-2014</i>	<i>WA 2014</i>	<i>US 2012-2014</i>
<b>Less than 70 Degrees (% Wearing)</b>	90.6	88.0	42.4	44.4	9.3	17.7****	16.9	25.6****
. . . <b>N Total Observed</b>	181	484	92	380	2,071	5,744	2,344	6,616
<b>70 to 79 Degrees (% Wearing)</b>	88.9	90.0	48.5	41.0*	16.3	17.1	25.3	26.8*
. . . <b>N Total Observed</b>	404	2,697	293	1,486	3,619	24,117	4,316	28,310
<b>80 to 89 Degrees (% Wearing)</b>	92.2	90.0	38.5	46.3*	16.3	14.6*	28.2	24.4****
. . . <b>N Total Observed</b>	435	4,761	244	2,938	2,564	47,118	3,243	54,845
<b>Above 90 Degrees (% Wearing)</b>	88.7	85.8	59.2	44.6*	18.5	10.3****	31.6	20.6****
. . . <b>N Total Observed</b>	71	2,774	49	1,680	411	26,294	531	30,760

Note--Significance Tests between 2014 WA and 2012-2014 National Wear Rates: \* = p <.05; \*\* = p <.01; \*\*\* = p < .001; \*\*\*\* = p < .0001



## Current Strength

Life jacket wear rates between WA and US were mostly similar among children and teens across different current strength conditions (**Table E9**), with one exception – a higher percentage of teens (54%) across the US wore life jackets when boating under strong current compared to 40% among teens in Washington. For adults, significant differences in life jacket wear rates were observed by current strength. Adult boaters in Washington had lower wear rates when current conditions were weak or strong (weak current: 13% WA vs 15% US; strong current: 16% WA vs 20% US). However, for boating while current conditions were moderate, adult wear rates in the WA were higher than nationally (24% WA vs 12% US).

**Table E9 Wear Rates by Current Strength  
2014 WA versus 2012-2014 National**

<b>Wear Rates By Current Strength</b>	<b>Children 0-12</b>		<b>Teens 13-17</b>		<b>Adults 18+</b>		<b>All Boaters</b>	
	<b>WA 2014</b>	<b>US 2012-2014</b>	<b>WA 2014</b>	<b>US 2012-2014</b>	<b>WA 2014</b>	<b>US 2012-2014</b>	<b>WA 2014</b>	<b>US 2012-2014</b>
<b>Weak or None(% Wearing)</b>	91.3	89.5	46.5	45.7	13.4	14.5*	23.7	25**
<b>. . . N Total Observed</b>	896	8,647	507	5,173	6,997	77,160	8,400	91,032
<b>Moderate (% Wearing)</b>	87.2	85.7	39.8	35.6	24.0	12.0****	31.7	19.2****
<b>. . . N Total Observed</b>	109	1,579	103	1,039	900	20,290	1,112	22,914
<b>Strong (% Wearing)</b>	86.0	85.8	39.7	54.0*	16.1	19.9*	24.4	27.1
<b>. . . N Total Observed</b>	86	439	68	251	768	5,343	922	6,033

Note--Significance Tests between 2014 WA and 2012-2014 National Wear Rates: \* = p <.05; \*\* = p <.01; \*\*\* = p < .001; \*\*\*\* = p < .0001

## Wind Speed

Life jacket wear rates between WA and US were mostly similar among children and teens across different wind speed conditions, with one exception - 93% of children 0-12 wore life jackets in WA compared to 88% across the US when wind speed was calm (0-1 knots). Compared to adult boaters in the US overall, adults in WA had higher life jacket use when wind speeds were 2 knots or above. However, when boating while there was little to no wind, adult wear rates were higher in the US (15%) than in WA (13%). (see Table 10)

**Table E10. Wear Rates by Wind Speed  
2014 WA versus 2012-2014 National**

<b>Wear Rates By Wind Speed</b>	<i>Children 0-12</i>		<i>Teens 13-17</i>		<i>Adults 18+</i>		<i>All Boaters</i>	
	<i>WA</i> <i>2014</i>	<i>US</i> <i>2012-2014</i>	<i>WA</i> <i>2014</i>	<i>US</i> <i>2012-2014</i>	<i>WA</i> <i>2014</i>	<i>US</i> <i>2012-2014</i>	<i>WA</i> <i>2014</i>	<i>US</i> <i>2012-2014</i>
<b>Calm (0-1 knots) (% Wearing)</b>	92.6	88.2*	54.5	50.5	13.0	15.4****	20.6	26.1****
<b>. . . N Total Observed</b>	365	2247	189	1317	4273	19346	4827	22914
<b>Breezy (2-5 knots) (% Wearing)</b>	89.4	89.4	41.7	43.4	16.2	14.6**	28.1	24.3****
<b>. . . N Total Observed</b>	669	6285	444	3760	3938	60493	5051	70568
<b>Windy (6+ knots) (% Wearing)</b>	89.5	88.4	35.6	42.2	18.9	12.2****	27.5	21.5****
<b>. . . N Total Observed</b>	57	2057	45	1297	454	21625	556	25003

Note--Significance Tests between 2014 WA and 2012-2014 National Wear Rates: \* = p <.05; \*\* = p <.01; \*\*\* = p <.001; \*\*\*\* = p <.0001

## **Summary of Differences between Washington and US data**

In this section we summarize the findings presented above. We refer to **Table E12**.

### **Children (0 – 12)**

Wear Rates for Children (0-12) are statistically higher in WA than in the US under a wide variety of circumstances. There are no circumstances when US wear rates for children exceed the wear rates in WA to a statistically significant degree. The specific situations in which WA children have higher wear rates than US children are as follows—all children combined, male children, boat sizes between 16-21 feet in length, general activities (that is not fishing/intent to fish or being towed), water temperatures above 70 degrees, weak currents and calm wind speeds.

### **Teenagers (13 – 17)**

Among teenagers for the most part wear rates are similar between WA state and the US national figures. However, WA teenagers have higher wear rates when considering all power boats combined and when water temperatures are above 70 degrees. On the other hand, US wear rates are higher for teenagers when they are found boating on rivers and where air temperatures are between 70-79 degrees.

**Table E12.**  
**Significant Differences between WA and US Wear Rates For Children and Teenagers**

Group	WA significantly higher wear rates	US significantly higher wear rates
<b>Children (0 – 12)</b>	<b>All Children</b> <b>Male Children</b> <b>Boat Size 16-21 feet</b> <b>General Activities (not fishing or being towed)</b> <b>Water Temp &gt; 70 degrees</b> <b>Boating on Lakes, Ponds, Reservoirs</b> <b>Air Temp &lt; 70 degrees</b> <b>Weak or no current</b> <b>Calm wind speed</b>	
<b>Teenagers (13 – 17)</b>	<b>All Power boats combined</b> <b>Water Temp &gt; 70 degrees</b>	<b>Boating on Rivers, Bays/Sounds</b> <b>Air Temp 70 – 79 degrees</b>

## **Adults (18+)**

For Adults the picture is almost the reverse of the situation for children under 13; we refer to the summary in **Table E13**. US wear rates are for the most part statistically higher than in WA state with a few exceptions. The situations in which the US has higher wear rates are—for all adults, for adult males, for adult females, when considering all power boats combined, speedboats, cabin cruisers, paddle inflatables, boats 21-26 feet in length as well as those 26+ feet in length, general activities (that is not fishing/intent to fish or being towed), water temperatures both below 60 degrees and 60-69 degrees, on all types of bodies of water, when air temperatures are cooler (< 70 degrees) or when warmer (>90 degrees) and when there are either weak currents or strong currents.

The few situations in which WA wear rates are statistically higher for adults are--powered inflatables, paddleboards, boats less than 16 feet in length, and when currents are moderate.

The summary of findings for all boaters taken together are not shown since they basically mirror the summary for adults given that adults make up the vast majority of boaters.

**Table E13.  
Significant Differences between WA and US Wear Rates For Adults**

<b>Group</b>	<b>WA significantly higher wear rates</b>	<b>US significantly higher wear rates</b>
<b>Adults</b>	<b>Powered Inflatables</b> <b>Paddleboards</b> <b>Boats &lt; 16 feet</b> <b>Moderate Current</b>	<b>All Adults</b> <b>Male Boaters</b> <b>Female Boaters</b> <b>All Power Boats combined</b> <b>Speedboats</b> <b>Cabin Cruisers</b> <b>Paddled Inflatables</b> <b>Boats 21-26 feet</b> <b>Boats 26 + feet</b> <b>General Activities (not fishing or being towed)</b> <b>Water Temperature &lt; 60 degrees</b> <b>Water Temperature 60 – 69 deg.</b> <b>Any body of water</b> <b>Air Temperature &lt; 70 degrees</b> <b>Air Temperature &gt; 90 degrees</b> <b>Weak or Strong Current</b> <b>Calm Wind Conditions</b>



## **F. Recommendations for Future Research**

1. It is recommended that Washington State Parks continue conducting life jacket wear rate studies on a regular basis so that improving trends can be identified early and circumstances in which wear rates are resistant to change can be identified and targeted for future promotions.
2. It would be useful to conduct observations at each site for more than one, 4-hour period.
3. It would be useful to conduct additional observations in the spring and fall seasons to better gauge the impact of cooler water and air temperatures.
4. Additional sites should be added which will increase the numbers of canoes that are observed.
5. Additional sites should be added which will increase the numbers of day sailors observed.
6. The assessment of the impact of loaner boards on wear rates would be strengthened if data were available both before and after loaner boards were placed. If sites are known to be planning the placement of a board, conducting observations before they are put in would be helpful.
7. The standard loaner board format shows a picture of a child in a swimming environment. It would perhaps be more effective for boat launch placements of the board if the pictures showed boating contexts.
8. Continued efforts should be made to replace boards that currently exist but are not in the standardized format standardized. The common “look” of the boards may help boaters to notice them.

## **Appendix**

The following materials are included in this Appendix.

1. A list of all sites observed in 2010 and 2014 with an indication of which sites were observed only in 2010 or only in 2014 or whether they were observed in both time periods. This list also shows the number of boaters observed in each time period for each observation site.
2. The site form used in 2010 and 2014 to collect data about weather and other environmental factors that described the site.
3. The boat observation forms used in 2010 and 2014 to collect data about the individual boat characteristics and the boater characteristics.
4. Pictures of all the 2014 sites, showing loaner boards if they existed at the site.



**List of sites in 2010 & 2014 with number of boats and boaters observed**

Site Name	Body of Water	In 2014			In 2010	
		# boats	# boaters	LB?	# boats	# boaters
<b>Sites that are in 2014 &amp; 2010 data</b>						
Alder Lake Park Day Use Area	Alder Lake	105	299		24	57
Black Lake Boat Launch	Black Lake	49	166		47	142
Bloedel Donovan Park	Lake Whatcom	16	25	yes	21	55
Blue Heron Park	Moses Lake	46	124	yes	49	125
Boston Harbor Marina	Puget Sound	128	275	yes	104	237
Brownsville Marina	Puget Sound	60	119		59	116
Columbia Point Marina Park	Columbia River	100	278	yes	210	623
Cornet Bay on Whidbey Island	Cornet Bay	82	195	yes	81	195
Coulon Park	Lake Washington	210	714	yes	85	239
Cresap Bay	Lake Merwin	44	116	yes	26	89
Don Morse Park	Lake Chelan	213	587		107	266
Hood Park	Snake River	68	202	yes	205	605
Kitsap Lake Park	Lake Kitsap	33	103		23	72
Lake Tapps Park	Lake Tapps	132	331	yes	84	216
Long Lake Boat Launch	Long Lake	20	54		23	61
Luhr Beach Launch Site	Nisqually River	13	24		64	112
Marine Park Observation Tower	Columbia River	42	96	yes	42	101
Mayfield Lake Park Boat Launch	Mayfield Lake	81	199		74	259
Potholes State Park	O'Sullivan Reser.	51	144	yes	25	57
Point Defiance Park Benches	Puget Sound	128	295		66	131
Roza Recreation Site	Yakima River	91	134		18	40
Shore Acres Resort	Loon Lake	20	55		23	45
State Park Boat Launch	Lake Sammamish	206	762		64	152
Tenth St Marina Park	Puget Sound	150	405	yes	97	252
UW Waterfront Activities Center	Lake Washington	300	1451		148	397

List of sites in 2010 & 2014 with number of boats and boaters observed (continued)

Site Name	Body of Water	In 2014			In 2010	
		# boats	# boaters	LB?	# boats	# boaters
<b>Sites that are in only in 2014 data</b>						
Ballard Locks	Puget Sound	86	229		0	0
Blue Lake Resort	Blue Lake	78	212		0	0
Ivars Restaurant Dockside Eating Area	Lake Union	300	812		0	0
Kirkland Boat Marina	Lake Washington	186	569	yes	0	0
Mercer Island	Lake Washington	297	906	yes	0	0
Edgewater Park	Skagit River	5	8		0	0
Skansie Brothers Park	Gig Harbor	140	271	yes	0	0
Monroe Boat Ramp	Skykomish River	48	105		0	0
Theas Park	Foss Harbor	83	169		0	0
<b>2014 TOTALS</b>		<b>3611</b>	<b>10434</b>			
<b>Sites that are only in 2010 data</b>						
Bumping Lake	Bumping Lake	0	0		11	20
Crescent Bar Launch Site	Columbia River	0	0		38	124
Fairhaven Boat Launch	Bellingham Bay	0	0		55	124
LaPush	Quileyute River	0	0		6	14
Larrabee State Park	Bellingham Bay	0	0		38	68
Park Lake	Park Lake	0	0		66	222
Salisbury Point	Liberty Bay	0	0		17	43
Swallows Park Boat Launch	Snake River	0	0		18	47
<b>2010 TOTALS</b>					<b>2018</b>	<b>5306</b>

# Site Form Front Side

WA State Parks 2014     ID

# of Belt Pack PFD's # of Boats Observed State Site Block Group Phase

### 1. Site Information

Observer Names: \_\_\_\_\_ City: \_\_\_\_\_  
 Site Name: \_\_\_\_\_ Water: \_\_\_\_\_  
 Life Jacket Loan Board:  Yes (COMPLETE 'Loan Board' section on back of page.)  No  Not near launch area  
 Date of Observation:  /  /  Day of the week:  Sat.  Sun.  
 Observation start time:  :   AM  PM Observation end time:  :   AM  PM

### 2. Type of Body of Water

Bay, inlet or sound  River, stream, creek or canal  Other: \_\_\_\_\_  
 Harbor  Lake, pond, or reservoir (not Great Lakes)  
 Intercoastal waterway  Great lake (not including tributaries)

### 3. Site Conditions

Water temperature:  degrees F

#### A. First Weather Observation (to be completed during 1st time block of boat observations)

Time:  7:59 or before  8-9:59 AM  10-11:59 AM  12-1:59 PM  2-3:59 PM  4-5:59 PM  6 PM or later

Air Temp. <input type="text"/> F	Water Conditions <input type="radio"/> Calm (less than 6") <input type="radio"/> Choppy (6" to 2') <input type="radio"/> Rough (over 2')	Current <input type="radio"/> Strong <input type="radio"/> Moderate <input type="radio"/> Weak/None	Visibility <input type="radio"/> Good <input type="radio"/> Fair <input type="radio"/> Poor	Weather Conditions <input type="radio"/> Sunny <input type="radio"/> Raining <input type="radio"/> Partly Cloudy <input type="radio"/> Stormy <input type="radio"/> Cloudy
Wind Speed <input type="text"/> knots				

#### B. Second Weather Observation (to be completed during 2nd time block of boat observations)

Time:  7:59 or before  8-9:59 AM  10-11:59 AM  12-1:59 PM  2-3:59 PM  4-5:59 PM  6 PM or later

Air Temp. <input type="text"/> F	Water Conditions <input type="radio"/> Calm (less than 6") <input type="radio"/> Choppy (6" to 2') <input type="radio"/> Rough (over 2')	Current <input type="radio"/> Strong <input type="radio"/> Moderate <input type="radio"/> Weak/None	Visibility <input type="radio"/> Good <input type="radio"/> Fair <input type="radio"/> Poor	Weather Conditions <input type="radio"/> Sunny <input type="radio"/> Raining <input type="radio"/> Partly Cloudy <input type="radio"/> Stormy <input type="radio"/> Cloudy
Wind Speed <input type="text"/> knots				

#### C. Third Weather Observation (to be completed during 3rd time block of boat observations)

Time:  7:59 or before  8-9:59 AM  10-11:59 AM  12-1:59 PM  2-3:59 PM  4-5:59 PM  6 PM or later

Air Temp. <input type="text"/> F	Water Conditions <input type="radio"/> Calm (less than 6") <input type="radio"/> Choppy (6" to 2') <input type="radio"/> Rough (over 2')	Current <input type="radio"/> Strong <input type="radio"/> Moderate <input type="radio"/> Weak/None	Visibility <input type="radio"/> Good <input type="radio"/> Fair <input type="radio"/> Poor	Weather Conditions <input type="radio"/> Sunny <input type="radio"/> Raining <input type="radio"/> Partly Cloudy <input type="radio"/> Stormy <input type="radio"/> Cloudy
Wind Speed <input type="text"/> knots				



# Site Form Back Side

### LOAN BOARD

Board Type: <input type="radio"/> Non-standard board <input type="radio"/> Standard board	Intended use: <input type="radio"/> Swimming <input type="radio"/> Boating <input type="radio"/> Both	Distance from boat launch: <input type="radio"/> Right next to launch area <input type="radio"/> Within 50 yards <input type="radio"/> More than 50 yards	Number of available jackets: <input type="text"/> Infant <input type="text"/> Child <input type="text"/> Youth <input type="text"/> Adult
---	--	--	---

**Wear a Life Jacket**  
Now provided at selected locations

TAKE A PHOTO OF THE SIGN AND ITS LOCATION. RETURN THIS TO JSI WITH YOUR DATA.  
 Took photo of sign and its location.

1. Please note any special events (e.g., a race or regatta) or other conditions (e.g., the presence of a Coast Guard boat, harbor master or enforcement boat) that may have influenced the type of boats, volume of boats, or boaters' use of PFDs. Please also note any comments on the condition of the life jacket board or loaner life jackets.

2. DID YOU HAVE ANY TROUBLE GETTING TO THE OBSERVATION POINT AT THIS SITE?  
 Yes  No

↓  
 IF THE DIRECTIONS PROVIDED BY JSI WERE INCORRECT, PLEASE CONFIRM AND CHECK HERE THAT YOU HAVE MADE NOTES/CHANGES ON THE LOOSE PRINTED DIRECTIONS IN THE BINDER, AND WILL TURN THEM IN WITH YOUR DATA.  
 Changes written on directions page

3. WAS A FISHING TOURNAMENT HAPPENING AT THIS SITE DURING YOUR OBSERVATIONS?  
 Yes  No  Don't know/Not sure

4. DID THE WEATHER AFFECT YOUR ABILITY TO CONDUCT YOUR OBSERVATIONS AT THIS SITE IN ANY WAY?  
 Yes  No  
 If yes, please specify:

5. TO YOUR KNOWLEDGE, DID THE WEATHER AFFECT THE LEVEL OF BOATING ACTIVITY AT THIS SITE IN ANY WAY?  
 Yes  No  
 If yes, please specify:





# Boat Observation Form

**TIME:**  7:59 or earlier  8:00 - 9:59 am  10:00 - 11:59 am  12:00 - 1:59 pm  2:00 - 3:59 pm  4:00 - 5:59 pm  6:00 or later

POWER BOAT:		SAIL:	PADDLE:	OTHER:	GENDER			AGE(years)					PFD			WS
<input type="radio"/> Skiff/Utility <input type="radio"/> PWC		<input type="radio"/> Day sailor	<input type="radio"/> Kayak	<input type="radio"/> Inflatable/Raft	M	F	?	0-5	6-12	13-17	18-64	65+	Old	New	No	Yes <input type="checkbox"/>
<input type="radio"/> Runabout/Speedboat <input type="radio"/> Pontoon		<input type="radio"/> Cabin sailboat	<input type="radio"/> Canoe	<input type="radio"/> Houseboat	OP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="radio"/> Cabin cruiser		<input type="radio"/> Sailboard	<input type="radio"/> Rowboat	<input type="radio"/> Other	P1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SIZE (ft):	PROPULSION:	OPERATION:		ACTIVITY:		P2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="radio"/> Under 16	<input type="radio"/> Outboard	<input type="radio"/> Cruising/Motoring	<input type="radio"/> Pleasure	<input type="radio"/> Fishing	P3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="radio"/> 16 - 20.9	<input type="radio"/> Stemdrive/Inboard	<input type="radio"/> Sailing	<input type="radio"/> Water skiing	<input type="radio"/> Intent to Fish	P4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="radio"/> 21 - 25.9	<input type="radio"/> Sail Only	<input type="radio"/> Rowing/Paddling	<input type="radio"/> White water	<input type="radio"/> Swimming	P5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="radio"/> 26 - 45.9	<input type="radio"/> Sail and Motor	<input type="radio"/> Drifting	<input type="radio"/> Racing or High Speed	<input type="radio"/> Other	P6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="radio"/> 46 +	<input type="radio"/> Paddles, Oars/Manual	<input type="radio"/> Anchored			P7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="radio"/> Air Thrust				P8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="radio"/> Other				P9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

POWER BOAT:		SAIL:	PADDLE:	OTHER:	GENDER			AGE(years)					PFD			WS
<input type="radio"/> Skiff/Utility <input type="radio"/> PWC		<input type="radio"/> Day sailor	<input type="radio"/> Kayak	<input type="radio"/> Inflatable/Raft	M	F	?	0-5	6-12	13-17	18-64	65+	Old	New	No	Yes <input type="checkbox"/>
<input type="radio"/> Runabout/Speedboat <input type="radio"/> Pontoon		<input type="radio"/> Cabin sailboat	<input type="radio"/> Canoe	<input type="radio"/> Houseboat	OP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="radio"/> Cabin cruiser		<input type="radio"/> Sailboard	<input type="radio"/> Rowboat	<input type="radio"/> Other	P1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SIZE (ft):	PROPULSION:	OPERATION:		ACTIVITY:		P2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="radio"/> Under 16	<input type="radio"/> Outboard	<input type="radio"/> Cruising/Motoring	<input type="radio"/> Pleasure	<input type="radio"/> Fishing	P3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="radio"/> 16 - 20.9	<input type="radio"/> Stemdrive/Inboard	<input type="radio"/> Sailing	<input type="radio"/> Water skiing	<input type="radio"/> Intent to Fish	P4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="radio"/> 21 - 25.9	<input type="radio"/> Sail Only	<input type="radio"/> Rowing/Paddling	<input type="radio"/> White water	<input type="radio"/> Swimming	P5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="radio"/> 26 - 45.9	<input type="radio"/> Sail and Motor	<input type="radio"/> Drifting	<input type="radio"/> Racing or High Speed	<input type="radio"/> Other	P6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="radio"/> 46 +	<input type="radio"/> Paddles, Oars/Manual	<input type="radio"/> Anchored			P7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="radio"/> Air Thrust				P8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="radio"/> Other				P9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

POWER BOAT:		SAIL:	PADDLE:	OTHER:	GENDER			AGE(years)					PFD			WS
<input type="radio"/> Skiff/Utility <input type="radio"/> PWC		<input type="radio"/> Day sailor	<input type="radio"/> Kayak	<input type="radio"/> Inflatable/Raft	M	F	?	0-5	6-12	13-17	18-64	65+	Old	New	No	Yes <input type="checkbox"/>
<input type="radio"/> Runabout/Speedboat <input type="radio"/> Pontoon		<input type="radio"/> Cabin sailboat	<input type="radio"/> Canoe	<input type="radio"/> Houseboat	OP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="radio"/> Cabin cruiser		<input type="radio"/> Sailboard	<input type="radio"/> Rowboat	<input type="radio"/> Other	P1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
SIZE (ft):	PROPULSION:	OPERATION:		ACTIVITY:		P2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="radio"/> Under 16	<input type="radio"/> Outboard	<input type="radio"/> Cruising/Motoring	<input type="radio"/> Pleasure	<input type="radio"/> Fishing	P3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="radio"/> 16 - 20.9	<input type="radio"/> Stemdrive/Inboard	<input type="radio"/> Sailing	<input type="radio"/> Water skiing	<input type="radio"/> Intent to Fish	P4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="radio"/> 21 - 25.9	<input type="radio"/> Sail Only	<input type="radio"/> Rowing/Paddling	<input type="radio"/> White water	<input type="radio"/> Swimming	P5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="radio"/> 26 - 45.9	<input type="radio"/> Sail and Motor	<input type="radio"/> Drifting	<input type="radio"/> Racing or High Speed	<input type="radio"/> Other	P6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="radio"/> 46 +	<input type="radio"/> Paddles, Oars/Manual	<input type="radio"/> Anchored			P7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="radio"/> Air Thrust				P8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="radio"/> Other				P9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
State	Site	Block	Group	Phase	Page Number





## 2014 Observation Sites

Alder Lake, Alder Lake Park (Site 15)  
Eatonville, Pierce County



Black Lake, Black Lake Boat Launch (Site 19)  
Belmore, Thurston County



Blue Lake, Blue Lake Resort (Site 25)  
Coulee City, Grant County



Columbia River, Columbia Point Marina Park (Site 23)  
Richland, Benton County





Columbia River, Marine Park Observation Tower (Site 01)  
Vancouver, Clark County



Cornet Bay, Cornet Bay on Whidbey Island (Site 03)  
Oak Harbor, Island County



Foss Harbor, Thea's Park (Site 11)  
Tacoma, Pierce County



Gig Harbor, Skansie Brother's Park (Site 12)  
Gig Harbor, Pierce County





Kitsap Lake, Kitsap Lake Park (Site 08)  
Bremerton, Kitsap County



Lake Chelan, Don Morse Park (Site 24)  
Chelan, Chelan County



Lake Merwin, Cresap Bay (Site 02)  
Amboy, Cowlitz County

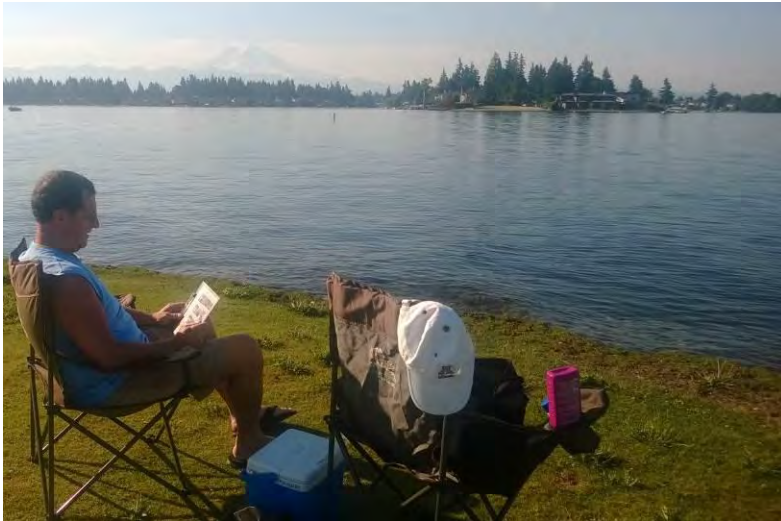


Lake Sammamish, State Park Boat Launch (Site 05)  
Issaquah, King County





Lake Tapps, Lake Tapps Park (Site 13)  
Bonney Lake, Pierce County



Lake Washington, Coulon Park (Site 06)  
Seattle, King County





Lake Washington, UW Waterfront Activities Center (Site 04)  
Seattle, King County



Lake Whatcom, Bloedel Donovan Park (Site 22)  
Bellingham, Whatcom County





Long Lake, Long Lake Boat Launch (Site 09)  
Port Orchard, Kistsap County



Loon Lake, Shore Acres Resort (Site 28)  
Loon Lake, Stevens County



Mayfield Lake, Mayfield Lake Park boat launch (Site 10)  
Mossyrock, Lewis County



Moses Lake, Blue Heron Park (Site 27)  
Moses Lake, Grant County





Nisqually River, Luhr Beach Launch Site (Site 20)  
Olympia, Thurston County



Potholes Reservoir, Potholes State Park (Site 26)  
Othello, Grant County



Puget Sound, 10<sup>th</sup> St Marina Park (Site 18)  
Everett, Snohomish County



Puget Sound, Boston Harbor Marina (Site 21)  
Olympia, Thurston County





Puget Sound, Brownsville Marina (Site 07)  
Poulsbo, Kitsap County



Puget Sound, Pt. Defiance Park (Site 14)  
Ruston, Pierce County



Skagit River, Edgewater Park (Site 16)  
Mount Vernon, Skagit County



Skykomish River, Monroe Boat Ramp (Site 17)  
Monroe, Snohomish County





Snake River, Hood Park (Site 29)  
Burbank, Walla Walla County



Yakima River, Roza Recreation Site (Site 30)  
Yakima, Yakima County



Ballard Locks,



Kirkland Marina,





Mercer Island,



Lake Union,

