

Washington Department of Fish & Wildlife (WDFW)

Washington State European Green Crab Emergency Response

Strategic Action Plan: Fiscal Year 2023

This document provides high-level actions to meet the five key Washington State European green crab (EGC) Incident Objectives for Fiscal Year 2023 (July 1, 2022, to June 30, 2023) including:

- A. Facilitate WDFW implementing Governor's Emergency Proclamation and state legislative funding directives for statewide emergency measures with respect for tribal sovereignty and federal jurisdictions.
- B. Health and safety of all participants.
- C. Reduce or contain EGC populations below levels that result in environmental, economic, and cultural resource harm.
- D. Collaborative and transparent emergency management.
- E. Post-emergency transition to long-term EGC management by local tribal co-managers and partners with WDFW oversight.

This action plan integrates relevant actions and tasks from the [2019 Salish Sea Transboundary Action Plan](#) (SSTAP) and is intended to be a living document where new actions/tasks can be added as new information emerges and emergency measures evolve. Each task now includes its Purpose, Deliverable(s), and ICS (Incident Command System) Organizational Lead which is a link to the companion fiscal year (FY) 2023 ICS Organizational Assignment List by its Section/Unit/Team hierarchy. The ICS Organizational Lead provides oversight that the task is being implemented and can recruit others to assist in completion of the task.

A. Facilitate WDFW implementing Governor's Emergency Proclamation and state legislative funding directives for statewide emergency measures with respect for tribal sovereignty and federal jurisdictions.

A.1 - Implement emergency measures through coordination and grants with tribal co-managers and partner organizations as necessary to effect the eradication of or to prevent the permanent establishment and expansion of European green crab.

Task A.1a: Continue implementation of the statewide Incident Command Structure (ICS).

- *Purpose:* Emergency management communications, coordination, and collaboration structure to effect the eradication of or to prevent the permanent establishment and expansion of EGC.
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Incident Command/ICS Implementation

Task A.1b: Continue to develop and implement the statewide policy Multi-Agency Coordination (MAC) Group and ensure it is inclusive of all necessary, relevant representation including state, tribal, federal, academic, and private partners.

- *Purpose:* Support coordination for incident prioritization, scarce resource allocation, communications systems integration, and information coordination.
- *Deliverable(s):* Ongoing representative participation at meetings held by operational period or as necessary; representative participation in completing Strategic Action Plan tasks.
- *ICS Organization Lead:* MAC Group/Facilitation

Task A.1c: Continue development and implementation of a tribal policy and technical coordination strategy.

- *Purpose:* Attain tribal perspectives on invasive EGC emergency management and co-management integration on policy and technical levels.
- *Deliverable(s):* Ongoing timely policy and technical outreach; Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Incident Command/WDFW Liaison/Tribal, MAC Group/Tribal Caucus

Task A.1d: Continue implementation of the Salish Sea Transboundary Action Plan (2017) for communication and coordination with the Department of Fisheries and Oceans Canada and other British Columbia first nations and other partners.

- *Purpose:* Continuity of prior EGC management objectives and actions into emergency management process.
- *Deliverable(s):* FY 2023 Strategic Action Plan including assignment of tasks and MAC Group approval by January 1, 2023; Implementation status updates at MAC Group meetings as necessary; Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* MAC Group/Transboundary Coordination

Task A.1e: Communicate and coordinate with other Pacific coast states, tribes, federal, and private partners as necessary, on emergency measure implementation.

- *Purpose:* Encourage collaborative EGC management across its current and projected expansion range.
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* MAC Group/West Coast Coordination

Task A.1f: Continue implementation of the Coastal EGC Management Grant program.

- *Purpose:* Provide flexibility in Coastal funding opportunities for tribal co-managers and other partners engaged in EGC management efforts to avoid having to ask for additional emergency funds from the Governor's office as EGC management evolves or new EGC populations are detected.
- *Deliverable(s):* Grant review committee recommendations; WDFW contracts and contract management; Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Finance/Coastal Local Management Grant

Task A.1g: Continue implementation of the statewide EGC Emergency Measures Grant program.

- *Purpose:* Provide Statewide flexibility in funding opportunities for tribal co-managers and other agency partners engaged in EGC management efforts to avoid having to ask for additional emergency funds from the Governor's office as EGC management evolves or new EGC populations are detected.
- *Deliverable(s):* MAC Group review & recommendations; Recreation and Conservation Office contracts and contract management; Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* MAC Group/Emergency Measures Interagency Agreements, Finance/Emergency Measures Interagency Agreements

Task A.1h: Continue to manage current EGC grants to Lummi Nation, Makah Tribe, NW Straits Commission, and WA Sea Grant.

- *Purpose*: Provide the resources necessary for these tribal co-managers and partners to address hot-spot EGC management areas.
- *Deliverable(s)*: WDFW contracts and contract management; Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: Finance/WDFW Contracts.

Task A.1i: Develop a FY 2023 (FY23) Strategic Action Plan to include EGC emergency measure priorities by Management Area and priorities for grant funding.

- *Purpose*: Provide high-level actions to meet the five key Washington State EGC Incident Objectives for FY23 (July 1, 2022, to June 30, 2023).
- *Deliverable(s)*: FY23 Strategic Action Plan including assignment of tasks and MAC Group approval by January 1, 2023.
- *ICS Organization Lead*: MAC Group/FY23 Strategic Action Plan

Task A.1j: Develop a FY 2024 (FY24) Strategic Action Plan to include EGC emergency measure priorities by Management Area and priorities for grant funding.

- *Purpose*: Provide high-level actions to meet the five key Washington State EGC Incident Objectives for FY24 (July 1, 2023, to June 30, 2024).
- *Deliverable(s)*: FY24 Strategic Action Plan including assignment of tasks and MAC Group approval by June 30, 2023.
- *ICS Organization Lead*: MAC Group/FY24 Strategic Action Plan

Task A.1k: Identify and disseminate existing additional EGC state and federal grant opportunities and advocate for short- and long-term federal EGC management funding.

- *Purpose*: Provide for sufficient short-term EGC emergency measures funding and sufficient long-term local EGC management funding.
- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: MAC Group/State & Federal Funding

A.2 - The Department of Ecology, the Department of Natural Resources and the State Parks and Recreation Commission identify European green crab management as a high priority on their respective state-owned aquatic lands and facilitate implementing emergency measures.

Task A.2a: Participate on the statewide policy Multi-Agency Coordination Group.

- *Purpose*: Support coordination for incident prioritization, scarce resource allocation, communications systems integration, and information coordination.
- *Deliverable(s)*: Representative participation in meetings and in developing and completing Strategic Action Plan tasks.
- *ICS Organization Lead*: MAC Group/State Caucus

Task A.2b: Identify jurisdictional state aquatic lands and level of EGC invasion and impact risk.

- *Purpose*: Determine scope of state agency aquatic lands that are at risk to EGC impacts by risk type(s) for input into statewide EGC emergency measures planning.
- *Deliverable(s)*: GIS layer of aquatic lands by agency and risk level.
- *ICS Organization Lead*: Planning/Research/Habitat Risk

Task A.2c: Identify current staff and resources available to support EGC management actions.

- *Purpose*: Determine scope of state agency staff and resource capacity for input into statewide EGC emergency measures planning.
- *Deliverable(s)*: List of personnel and resources available for EGC emergency management.
- *ICS Organization Lead*: Logistics/Supply, Logistics/Facilities

Task A.2d: Identify staff and resource gaps.

- *Purpose*: Determine if state agencies have sufficient staff and resources to meet EGC emergency management objectives on state aquatic lands.
- *Deliverable(s)*: Report by agency of staff and resource gaps.
- *ICS Organization Lead*: Logistics/Supply, Logistics/Facilities

Task A.2e: Continue training, field, and outreach collaboration and coordination with WDFW, WSG, and other local partners.

- *Purpose*: Consistency in EGC emergency measures operational actions.
- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: Operations/Training

A.3 - Per RCW [77.135.090](#), WDFW must continually evaluate the effects of the emergency measures and report these to the governor at intervals of not less than ten days. The director must immediately advise the governor if the director finds that the emergency no longer exists or if certain emergency measures should be discontinued.

Task A.3a: Provide reports to the Governor every 10 calendar days on effects of emergency measures and recommendation for continuing or discontinuing the emergency.

- *Purpose*: Evaluate the effects of the emergency measures and advise the governor on continuation or discontinuance of emergency measures
- *Deliverable(s)*: Brief summary of findings and advice on continuance of emergency measures.
- *ICS Organization Lead*: Incident Command/Reporting/Governor 10-day reports.

Task A.3b: Provide additional reports to the Governor as necessary.

- *Purpose*: Keep Governor's Office informed on EGC emergency measures actions between 10-day reports.
- *Deliverable(s)*: Situation, quarterly, and annual reports, and any information as requested.
- *ICS Organization Lead*: Incident Command/Reporting/Governor 10-day reports.

A.4 - Provide quarterly progress reports on the success, challenges of the [emergency] measures, and legislative recommendations to the appropriate committees of the legislature beginning on December 1, 2022.

Task A.4a: Draft first quarterly (Q1) progress report (Mar 1 to Sep 30, 2022) by November 1, 2022, for Multi-Agency Coordination Group review.

- *Purpose*: Quarterly assessment of EGC emergency management actions; Provide opportunity for tribal co-manager and partner review of Q1 report
- *Deliverable(s)*: Draft Q1 report available for review by Nov 1.
- *ICS Organization Lead*: Incident Command/Reporting/Quarterly Reports.

Task A.4b: Provide final Q1 progress report by December 1, 2022, to appropriate legislative committees.

- *Purpose*: Communication of EGC emergency measure successes and challenges made available by legislative funding, and any legislative recommendations.

- *Deliverable(s)*: Final Q1 report disseminated to Senate Ways and Means, Senate Agriculture, Water, Natural Resources, and Parks, House Appropriations, and House Rural Development, Agriculture, and Natural Resources committees.
- *ICS Organization Lead*: Incident Command/Reporting/Quarterly Reports.

Task A.4c: Draft second quarterly (Q2) progress report (Oct 1 to Dec 31, 2022) by February 1, 2023, for Multi-Agency Coordination Group review.

- *Purpose*: Quarterly assessment of EGC emergency management actions; Provide opportunity for tribal co-manager and partner review of Q1 report
- *Deliverable(s)*: Draft Q1 report available for review by February 1.
- *ICS Organization Lead*: Incident Command/Reporting/Quarterly Reports

Task A.4d: Provide final second quarterly (Q2) progress report by March 1, 2023, to appropriate legislative committees.

- *Purpose*: Communication of EGC emergency measure successes and challenges made available by legislative funding, and any legislative recommendations.
- *Deliverable(s)*: Final Q2 report disseminated by March 1 to Senate Ways and Means, Senate Agriculture, Water, Natural Resources, and Parks, House Appropriations, and House Rural Development, Agriculture, and Natural Resources committees.
- *ICS Organization Lead*: Incident Command/Reporting/Quarterly Reports

Task A.4e: Draft third quarterly (Q3) progress report (Jan 1 to March 31, 2023) by May 1, 2023, for Multi-Agency Coordination Group review.

- *Purpose*: Quarterly assessment of EGC emergency management actions; Provide opportunity for tribal co-manager and partner review of Q3 report
- *Deliverable(s)*: Draft Q3 report available for review by May 1.
- *ICS Organization Lead*: Incident Command/Reporting/Quarterly Reports

Task A.4f: Provide final third quarterly (Q3) progress report by Jun 1, 2023, to appropriate legislative committees.

- *Purpose*: Communication of EGC emergency measure successes and challenges made available by legislative funding, and any legislative recommendations.
- *Deliverable(s)*: Final Q3 report disseminated by June 1 to Senate Ways and Means, Senate Agriculture, Water, Natural Resources, and Parks, House Appropriations, and House Rural Development, Agriculture, and Natural Resources committees.
- *ICS Organization Lead*: Incident Command/Reporting/Quarterly Reports

B. Health and safety of all participants.

B.1 – Develop and deploy Health, Safety, and Environmental (HSE) best management practices to support DFW staff, tribal co-managers, partners, and volunteers.

Task B.1a: Develop HSE best management practices to support WDFW staff, tribal co-managers, partners, and volunteers.

- *Purpose*: Meet Incident Objective 2: Health and safety of all participants.
- *Deliverable(s)*: Document recognized incident situation Health and Safety Hazards and mitigations on the ICS 201 Incident Briefing, ICS 208 Safety Message/Plan and ICS 215A Incident Action Plan Safety Analysis – Templates to be completed by Jan. 1, 2023 -[Emergency Management Institute | ICS Fillable Forms \(fema.gov\)](#).
- *ICS Organization Lead*: Safety/HSE Best Mgmt. Practices

Task B.1b: Deploy HSE best management practices to WDFW staff (including regional and enforcement contacts), tribal co-managers, partners, and volunteers.

- *Purpose:* Meet Incident Objective 2: Health and safety of all participants.
- *Deliverable(s):* Utilize completed ICS 201, ICS 206, ICS 208 and ICS 215A in situation specific incident action plans (IAP) when developed – TBD [Emergency Management Institute | ICS Fillable Forms \(fema.gov\)](#).
- *ICS Organization Lead:* Operations/Safety

Task B.1c: Develop Job Hazard Assessment (JHA) to identify and mitigate potential hazards and associated risk. Form 215A.

- *Purpose:* Meet Incident Objective 2: Health and safety of all participants.
- *Deliverable(s):* Create ICS 215A template to be utilized in situation specific IAPs – Template to be completed by Jan. 1, 2023.
- *ICS Organization Lead:* Safety/Job Hazard Assessment.

Task B.1d: Develop emergency medical plan to support participants after injuries and incidents.

- *Purpose:* Meet Incident Objective 2: Health and safety of all participants.
- *Deliverable(s):* Create ICS 206 Medical Plan Template for use in situation specific IAPs – Template to be completed by Jan. 1, 2023.
- *ICS Organization Lead:* Safety/Emergency Medial Planning.

Task B.1e: Establish injury, incident, and near miss reporting for DFW, partners, and volunteers.

- *Purpose:* Meet Incident Objective 2: Health and safety of all participants.
- *Deliverable(s):* IAP ICS 208 Template to include sample SSIR as an example of incident reporting systems for partners and volunteers. – Template to be completed by Jan. 1, 2023.
- *ICS Organization Lead:* Safety/SSRI Reporting

Task B.1f: Collect and collate health and safety information on tribal co-managers partner activities.

- *Purpose:* Meet Incident Objective 2: Health and safety of all participants.
- *Deliverable(s):* Sample IAP with ICS Safety Forms will be made available to all partners. Quarterly tribal and partner (MAC-G) safety meeting to discuss EGC operation incidents, hazards and mitigations. Invitations to meetings to begin Q1 – 2023.
- *ICS Organization Lead:* Safety/SSRI Reporting

B.2 – Share state and collated health and safety protocols with all partners and tribal co-managers as needed.

Task B.2a: Provide health and safety updates on HSE best management practices as needed.

- *Purpose:* Meet Incident Objective 2: Health and safety of all participants.
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Safety/SSRI Reporting

Task B.2b: Provide summary of health and safety events, accomplishments, and recommendations as part of annual reports (see D.5a).

- *Purpose:* Meet Incident Objective 2: Health and safety of all participants.
- *Deliverable(s):* Summary of health and safety events, accomplishments, and recommendations.
- *ICS Organization Lead:* Safety/SSRI Reporting

C. Reduce or contain EGC populations below levels that result in environmental, economic, and cultural resource harm.

C.1 – Planning, logistics, and finances are managed to ensure resource capacity to effectively reduce or contain EGC populations (supplies, equipment, facilities, etc.)

Task C.1a: Develop and maintain a comprehensive inventory of resource capacity by entity.

- *Purpose:* Support statewide EGC emergency management decision-making.
- *Deliverable(s):* Ongoing documentation in annual reports.
- *ICS Organization Lead:* Logistics/Supply, Logistics/Facilities

Task C.1b: Deploy and track resources as necessary.

- *Purpose:* Support statewide EGC emergency management operations and local area EGC management capacities.
- *Deliverable(s):* Ongoing documentation in annual reports.
- *ICS Organization Lead:* Operations/Ground Support

Task C.1c: All partners¹ must have a valid AIS Permit from WDFW prior to EGC management.

- *Purpose:* Provide WDFW authorization and statewide consistency in EGC/prohibited level 1 management conditions and requirements for possession and removal.
- *Deliverable(s):* Reporting as required under permit.
- *ICS Organization Lead:* Planning/Resources/AIS Permits

Task C.1d: All tribal co-managers² and partners, if trapping in an area/manner that may result in take of an Endangered Species Act (ESA) listed species, must have a valid ESA permit from the National Oceanic and Atmospheric Administration prior to EGC management.

- *Purpose:* Allow for incidental take of federally protected species if captured as bycatch during EGC management actions.
- *Deliverable(s):* Reporting as required under permit.
- *ICS Organization Lead:* Planning/Resources/ESA Permits

Task C.1e: Incident Action Plans (IAPs) are produced and distributed at agreed upon intervals.

- *Purpose:* Provide information on EGC emergency management personnel, resources, and actions to be accomplished in the next operational period.
- *Deliverable(s):* Strategic Action Plans (annual IAP), IAPs on quarterly, monthly, or by operational period as determined by available resources.
- *ICS Organization Lead:* Planning/Documentation/IAP Development.

Task C.1f: Expenditures are documented in legislative quarterly and general annual reports.

- *Purpose:* Demonstrate effective use of legislative funding and meet Incident Objective D: Collaborative and transparent emergency management.
- *Deliverable(s):* Quarterly and annual expenditure reports.
- *ICS Organization Lead:* Finance/WDFW Budget.

C.2 – Provide standard field operations training.

Task C.2a: WSG to continue implementation of standardized training to Crab Team volunteers, partners and others conducting EGC trapping in Washington.

- *Purpose:* Provide statewide consistency in EGC management skills and requirements.

¹ Tribal co-managers are not required to have an AIS Permit.

² Unclear at this time if it is a separate process for tribes.

- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: Operations/Training

Task C.2b: Continue collaboration and coordination with WDFW and WSG in training materials and training events.

- *Purpose*: Provide statewide consistency in EGC management skills and requirements.
- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: Operations/Training

Task C.2c: Continue to develop and implement standardized training materials to all EGC personnel.

- *Purpose*: Provide statewide consistency in EGC management skills and requirements.
- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: Planning/Resources/Standard Operating Protocols.

C.3 – Data Management to ensure that all data and research results are consolidated, consistent, quality controlled, and are shared effectively.

Task C.3a: Continue to develop and implement standardized data collection methods including data minimum requirements.

- *Purpose*: Data consistency for statewide interpretation of EGC risks, accomplishments, and challenges.
- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: Planning/Documentation/Data Management

Task C.3b: Develop and maintain an integrated data and emergency measures collection and collation process.

- *Purpose*: Data consistency for statewide interpretation of EGC risks, accomplishments, and challenges.
- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: Planning/Documentation/IT Resources

Task C.3c: Develop an EGC data, research, and reports clearing house.

- *Purpose*: Data consistency for statewide interpretation of EGC risks, accomplishments, and challenges.
- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: Planning/Documentation/IT Resources

Task C.3d: Coordinate with federal partners to share relevant data and align data management.

- *Purpose*: Data consistency for national interpretation of EGC risks, accomplishments, and challenges.
- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: Planning/Documentation/Data Management

Task C.3e: Continue implementation of data management communications protocols to support information sharing and transparency while abiding by data sharing agreements and respecting appropriate sovereign and private lands considerations.

- *Purpose*: Meeting Incident Objective D: Collaborative and transparent emergency management.
- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: Planning/Documentation/Data Management

C.4 – Prevent human-mediated introduction and spread of EGC (EGC field crews, aquaculture operations, ballast water, other).

Task C.4a: Assess Washington coast and Salish Sea ballast water and biofouling introduction risks associated with commercial vessels.

- *Purpose*: Assess commercial shipping pathway risk for introduction/spread of EGC into Washington waters.
- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: Planning/Research/Pathway Risk

Task C.4b: Request Transport Canada provide information on Salish Sea ballast water and biofouling introduction risks associated with commercial vessels.

- *Purpose*: Assess commercial shipping pathway risk for introduction/spread of EGC into Washington waters.
- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: MAC Group/Transboundary Coordination

Task C.4c: Transboundary consultation/ collaboration with shellfish grower association forums and local shellfish growers to ensure growers understand and mitigate pathways of EGC introduction.

- *Purpose*: Assess shellfish grower pathway risk for introduction/spread of EGC into Washington waters.
- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: MAC Group/Transboundary Coordination

Task C.4d: DFO enforces regulations related to moving product from west to east Vancouver Island.

- *Purpose*: Prevention of EGC introduction/spread into Washington waters.
- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: MAC Group/Transboundary Coordination

Task C.4e: WDFW enforces EGC possession and aquaculture transport regulations in Washington.

- *Purpose*: Prevention of EGC introduction/spread within Washington waters and to British Columbia waters of the Salish Sea.
- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: Incident Command/Shellfish Aquaculture

Task C.4f: Assess compliance with and adequacy of current shellfish industry best management practices to prevent spread of EGC.

- *Purpose:* Prevention of EGC introduction/spread within Washington waters and to British Columbia waters of the Salish Sea.
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Incident Command/Shellfish Aquaculture

Task C.4g: Assess risk of introduction and spread of EGC from other human-mediated pathways including proposed nearshore development(s) and existing infrastructure maintenance.

- *Purpose:* Prevention of EGC introduction/spread within Washington waters and to British Columbia waters of the Salish Sea.
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Planning/Research/Pathway Risk

Task C.4h: Provide decontamination protocols for EGC emergency management field actions to prevent the introduction or spread of EGC or other aquatic invasive species and pathogens.

- *Purpose:* Prevention of EGC and other AIS introduction/spread within Washington waters.
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Planning/Resources/Decontamination

C.5 – Early Detection/Prospecting to identify EGC presence at earliest invasion stage.

Task C.5a: Washington Sea Grant (WSG) maintains an EGC habitat suitability map to support identification of early detection monitoring/prospecting sites in Washington Salish Sea waters.

- *Purpose:* Provide a baseline statewide scope of EGC risk.
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Planning/Situation/Early Detection

Task C.5b: DFO maintains an EGC habitat suitability map to support identification of early detection monitoring/prospecting sites in the Canadian portion of the Salish Sea.

- *Purpose:* Provide a baseline statewide scope of EGC risk.
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* MAC Group/Transboundary Coordination

Task C.5c: WSG and DFO lead the monitoring of selected early detection monitoring sites at least monthly between April and September using established protocols.

- *Purpose:* Detect EGC at their earliest point in the invasion process to allow cost effective and environmentally sound decisions to be made to prevent their spread and establishment
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* MAC Group/Transboundary Coordination; Operations/Early Detection

Task C.5d: In collaboration with local tribal co-managers and partners, identify areas of risk, then identify and develop relationships with key property owners to establish access opportunities.

- *Purpose:* Provide information for efficient EGC management planning and operations.
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Planning/Research/Habitat Risk

Task C.5e: Cultivate and build capacity within local tribal co-managers and partner organizations to expand prospecting, including providing training, supporting resource acquisition and data and communications needs.

- *Purpose:* Provide information for efficient EGC management planning and operations.
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Planning/Situation/Control

Task C.5f: Implement and oversee early detection/prospecting at new and under-surveyed sites throughout Washington.

- *Purpose:* Detect EGC at their earliest point in the invasion process to allow cost effective and environmentally sound decisions to be made to prevent their spread and establishment.
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Operations/Early Detection

Task C.5g: Trapping partners conducting early detection/prospecting continue to collaborate and coordinate with WDFW.

- *Purpose:* Detect EGC at their earliest point in the invasion process to allow cost effective and environmentally sound decisions to be made to prevent their spread and establishment.
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Operations/Early Detection

Task C.5h: Coordination with other Pacific coast states, tribes and first nations, federal partners, the Department of Fisheries and Oceans Canada, and British Columbia on communication of new detections.

- *Purpose:* Enhance coordination and collaborative EGC emergency measures actions.
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* MAC Group/Transboundary Coordination, MAC Group/West Coast Coordination

Task C.5j: Assess alternative approaches to early detection (e.g., incorporating eDNA monitoring, expanding citizen science monitoring) with the goal of increasing capacity and coverage.

- *Purpose:* Adaptive management to improve early detection effectiveness.
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Planning/Research

C.6 – Rapid Response on new detections to quickly reduce or contain EGC populations or assess scope of EGC risk.

Task C.6a: Rapidly disseminate new EGC detection information to appropriate state and Management Area tribal co-managers and partners.

- *Purpose:* Communications to alert and mobilize resources.
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Operations/Rapid Response

Task C.6b: Assess threat level (species densities and geographic scope of infestation) for all new EGC detections at new locations through rapid assessment trapping efforts.

- *Purpose*: Provide time-sensitive actions to determining scope of invasion for the purpose of containing or eradicating the species before it spreads or becomes further established
- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: Operations/Rapid Response

Task C.6c: Develop local capacity to support/ respond to rapid response actions.

- *Purpose*: Meet Incident Objective E: Post-emergency transition to long-term EGC management...
- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: Planning/Situation/Rapid Response

Task C.6d: Coordinate with federal partners to assess alignment between state and potential federal level rapid response efforts.

- *Purpose*: Meet Incident Objective E: Post-emergency transition to long-term EGC management...
- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: Planning/Situation/Rapid Response

C.7 – Control or contain persistent infested site populations to eliminate or minimize EGC risks.

Task C.7a: Develop local EGC control management plans/agreements, informed by statewide strategic action plan, including: site specific benchmarks of success; menu of available management actions and resources; menu of available mitigation measures to minimize harm; defined partner roles, data collection and reporting objectives.

- *Purpose*: Meet Incident Objective E: Post-emergency transition to long-term EGC management...
- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: Planning/Documentation/Long-Term Transition

Task C.7b: Develop local capacity to support/maintain long-term control actions.

- *Purpose*: Meet Incident Objective E: Post-emergency transition to long-term EGC management...
- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: Planning/Documentation/Long-Term Transition

Task C.7c: Implement EGC operations management actions.

- *Purpose*: Meet Incident Objective C: Reduce or contain EGC populations ...
- *Deliverable(s)*: Ongoing operational and support actions.
- *ICS Organization Lead*: Operations/Salish Sea Branch, Operations/Coastal Branch

C.8 – Monitor and evaluate EGC population trends and impacts.

Task C.8a: WSG maintains inland Crab Team and coastal sentinel site monitoring to assess EGC population trends.

- *Purpose:* Provide a systematic and designed EGC sampling effort for information-gathering purposes that are implemented consistently and on a routine schedule
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Operations/Early Detection

Task C.8b: Develop, implement, and track compliance of data requirement minimums by effort type or other actions.

- *Purpose:* Provide quality control/quality assurance actions.
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Planning/Documentation/Data Management

Task C.8c: Identify tribal co-managers and other partners that are willing to develop local capacity to support/ maintain monitoring actions.

- *Purpose:* Meet Incident Objective E: Post-emergency transition to long-term EGC management...
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Planning/Documentation/Long-Term Transition

Task C.8d: Develop and implement methods for determining and tracking EGC impacts.

- *Purpose:* Assess environmental, economic, and cultural impacts from EGC to support establishing policy and technical harmful thresholds under functional control objectives.
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Planning/Research/Habitat Risk

Task C.8e: An EGC research task force (see C.9a) provides at least an annual summary (see D.5a) that evaluates trends and identifies and interprets trends and impacts.

- *Purpose:* Assess successes, challenges and recommendations to adaptively manage EGC management.
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports as available.
- *ICS Organization Lead:* Planning/Research

Task C.8f: Through coordination by science leads and Joint Information Center (JIC), share and contribute EGC population trends and impacts information from Washington state to broader forums on EGC as appropriate.

- *Purpose:* Coordination and collaboration to implement and interpret studies, identify gaps, and prevent duplication of effort.
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Public Info/Joint Information Center

C.9 – Research to develop increasingly effective management strategies or minimize environmental, economic, and human resource harm.

Task C.9a: Develop and implement an EGC Research Task Force (RTF).

- *Purpose*: Coordination and collaboration to implement and interpret studies, identify gaps, and prevent duplication of effort.
- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: Planning/Research

Task C.9b: The EGC RTF will develop a ranked list of existing and needed research with primary focus on improving prevention, detection, and management of EGC.

- *Purpose*: Coordination and collation of existing research, gaps, and to prevent duplication of effort.
- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: Planning/Research

Task C.9c: The EGC RTF will identify proposed technical “reducing EGC risk below impacts” thresholds of EGC by population.

- *Purpose*: Assess environmental, economic, and cultural impacts from EGC to support establishing policy and technical harmful thresholds under functional control objectives.
- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: Planning/Research/Impact Threshold

Task C.9d: Identify data requirements for assessing EGC populations from various effort types.

- *Purpose*: Assess EGC invasion stage and information for EGC emergency and long-term planning.
- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: Planning/Research

Task C.9e: Coordinate with USGS Western Fisheries Research Center’s efforts to develop a structured decision-making framework to assist managers in making decisions about allocation of resources and intensity of European eradication efforts.

- *Purpose*: Alternative process to assess EGC invasion stage and information for long-term EGC management planning.
- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: Planning/Research/Impact Threshold

Task C.9f: Coordinate with USGS Western Fisheries Research Center’s efforts to use bioenergetic models for EGC and Dungeness crabs to assess invasion potential and vulnerabilities now and under projected climate change and sea level rise scenarios.

- *Purpose*: Alternative process to assess EGC invasion stage and information for long-term EGC management planning.
- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: Planning/Research/Climate Change Risk

D. Collaborative and transparent emergency management.

D.1 – Coordinate with local tribal co-managers and partners to identify and categorize potential sites of EGC risk.

Task D.1a: Continue to collaborate and coordinate with local tribal co-managers and partners to assess potential sites.

- *Purpose:* Meet Incident Objective D: Collaborative and transparent emergency management.
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Planning/Situation/Early Detection

Task D.1b: Continue to support field efforts with staff and resources when able and necessary.

- *Purpose:* Meet Incident Objective D: Collaborative and transparent emergency management.
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Operations/Ground Support

Task D.1c: Identify regional governing bodies within EGC management areas that and could most efficiently and effectively assist with local access, partners and coordination.

- *Purpose:* Meet Incident Objective D: Collaborative and transparent emergency management.
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Planning/Salish Sea Branch, Planning/Coastal Branch

D.2 – Provide ICS Situation Reports documenting key events and accomplishments for each operational period.

Task D.2a: All tribal co-managers and partners will document and submit high-level summary status reports on events, accomplishments, and resource capacity issues on a bi-weekly basis to a centralized collection point.

- *Purpose:* Timely assessment of current actions to determine effectiveness and to detect increasing or decreasing EGC captures to support real-time adaptive management.
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Incident Command/Reporting/Situation Reports

Task D.2b: WDFW will collate summary status reports for the ICS Situation Reports and disseminate to EGC policy and technical management personnel.

- *Purpose:* Timely communications of current actions, effectiveness, and adaptive management recommendations.
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Incident Command/Reporting/Situation Reports

Task D.2c: Continue to develop an online reporting tool for all EGC related forms and documents.

- *Purpose:* Data consistency for statewide interpretation of EGC risks, accomplishments, and challenges.
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Planning/Documentation/IT Resources

D.3 – Provide public education and outreach.

Task D.3a: Provide public-facing information on websites and in outreach materials to other partners, stakeholders, and the public about how to avoid introducing and spreading EGC.

- *Purpose*: Prevention of EGC and other AIS introduction/spread within Washington waters.
- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: Public Info/Public-Facing Updates

Task D.3b: Provide monthly public-facing updates on EGC emergency measures status based on ICS Situation Reports.

- *Purpose*: Meet Incident Objective D: Collaborative and transparent emergency management.
- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: Public Info/Public-Facing Updates

Task D.3c: Form a Joint Information Center (JIC) for consistency and coordination in public-facing EGC emergency measures information dissemination, especially during new detections or crises.

- *Purpose*: Meet Incident Objective D: Collaborative and transparent emergency management.
- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: Public Info/Joint Information Center

Task D.3d: Through JIC, develop communications protocols for new detections building on 2022 communications actions (ex. Hood Canal detection) to guide future public information sharing.

- *Purpose*: Meet Incident Objective D: Collaborative and transparent emergency management.
- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: Public Info/Joint Information Center

Task D.3e: Continue collaboration and coordination with co-managers and partners for consistent and cohesive messaging.

- *Purpose*: Meet Incident Objective D: Collaborative and transparent emergency management.
- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: Public Info/Joint Information Center

Task D.3f: Increase public awareness of EGC risks through site specific signage, outreach events, and in-person/virtual presentations/video updates.

- *Purpose*: Meet Incident Objective D: Collaborative and transparent emergency management.
- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: Public Info/Education & Outreach

D.4 – Encourage and facilitate public reporting of EGC.

Task D.4a: Provide public-facing information and outreach on EGC identification and reporting.

- *Purpose*: Detect EGC at their earliest point in the invasion process to allow cost effective and environmentally sound decisions to be made to prevent their spread and establishment.
- *Deliverable(s)*: Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead*: Public Info/Public Detection Reporting

Task D.4b: With support from JIC, develop opportunities to disseminate EGC identification and reporting info to new audiences.

- *Purpose:* Detect EGC at their earliest point in the invasion process to allow cost effective and environmentally sound decisions to be made to prevent their spread and establishment.
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Public Info/Public Detection Reporting

Task D.4c: Provide in-person and virtual training opportunities for NGOs, community, and stakeholder groups for basic EGC ID, background, and learning how to report.

- *Purpose:* Detect EGC at their earliest point in the invasion process to allow cost effective and environmentally sound decisions to be made to prevent their spread and establishment.
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Operations/Training

D.5 – Public-facing annual report of statewide EGC management.

Task D.5a: Provide annual report.

- *Purpose:* Meet Incident Objective D: Collaborative and transparent emergency management.
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Incident Command/Reporting/Annual Reports

E. Post-emergency transition to long-term EGC management by local tribal co-managers partners with WDFW oversight.

E.1 – Identify policy and technical threshold(s) for determining when the emergency no longer exists.

Task E.1a: Identify policy thresholds.

- *Purpose:* Meet Incident Objective E: Post-emergency transition to long-term EGC management...
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Planning/Research/Impact Threshold

Task E.1b: Identify technical thresholds (correlation with Task C.9c)

- *Purpose:* Meet Incident Objective E: Post-emergency transition to long-term EGC management...
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Planning/Research/Impact Threshold

E.2 – Identify level of WDFW oversight (e.g., policy, technical, financial) required for long-term management.

Task E.2a: Identify WDFW long-term management oversight goals and objectives.

- *Purpose:* Meet Incident Objective E: Post-emergency transition to long-term EGC management...
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Planning/Documentation/Long-Term Transition

E.3 – Identify and empower local EGC management coordination with tribal co-managers and partners.

Task E.3a: Identify local tribal co-managers and partners per coordination area.

- *Purpose:* Meet Incident Objective E: Post-emergency transition to long-term EGC management...
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* MAC Group/Tribal Caucus

Task E.3b: Identify funding resources and needs.

- *Purpose:* Meet Incident Objective E: Post-emergency transition to long-term EGC management...
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Planning/Documentation/Long-Term Transition

Task E.3c: Identify staffing resources and needs (i.e., volunteer networks, educational institutions, other local working groups).

- *Purpose:* Meet Incident Objective E: Post-emergency transition to long-term EGC management...
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Planning/Documentation/Long-Term Transition

Task E.3d: Assess and develop a funding plan for long-term support of tribal co-managers and other partners.

- *Purpose:* Meet Incident Objective E: Post-emergency transition to long-term EGC management...
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Planning/Documentation/Long-Term Transition

E.4 – Develop a draft outline, resources and timeline for completing a statewide 5-year transboundary European green crab management plan.

Task E.4a: Develop a draft outline for review.

- *Purpose:* Meet Incident Objective E: Post-emergency transition to long-term EGC management...
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Planning/Documentation/Long-Term Transition

Task E.4b: Identify resources needed and a timeline for completion.

- *Purpose:* Meet Incident Objective E: Post-emergency transition to long-term EGC management...
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* Planning/Documentation/Long-Term Transition

E.5 – Communicate, coordinate and collaborate on federal European green crab management forums and management plans.

Task E.5a: Puget Sound Federal Task Force.

- *Purpose:* Ensure federal EGC actions are consistent with Washington State actions.
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* MAC Group/Federal Caucus

Task E.5b: Aquatic Nuisance Species Task Force National EGC Management Plan.

- *Purpose:* Ensure national plan is consistent with Washington State plans.
- *Deliverable(s):* Ongoing documentation of actions in Situation Reports, legislative quarterly reports and annual reports.
- *ICS Organization Lead:* MAC Group/Federal Caucus