

TRIUMPH GULF COAST, INC. PRE-APPLICATION FORM

Triumph Gulf Coast, Inc. (“Triumph Gulf Coast”) has created a pre-application process to provide initial consideration of potential ideas for projects or programs that may seek an award of funding. Applicants are required to participate in the pre-application process. Notwithstanding the response from Triumph Gulf Coast on the pre-application form, an Applicant may still elect to submit an Application.

APPLICANT INFORMATION:

Name of Individual/Entity/Organization: _____

Brief Description of Background of Individual/Entity/Organization: _____

Contact Information:

Primary Contact Information: _____

Title: _____

Mailing Address: _____

Telephone Number: _____

Email Address: _____

Website: _____

Names of co-applicants, partners or other entities, organizations that will have a role in the proposed project or program: _____

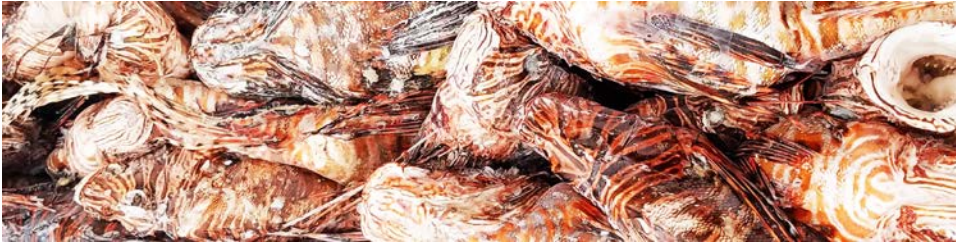
REQUIRED EXECUTIVE SUMMARY:

In a maximum of three (3) pages, please describe the proposed project or program, including (i) the amount of funds being sought from Triumph Gulf Coast; (ii) the amount and identity of other sources of funds for the proposed project or program; (iii) the location of the project or program; (iv) summary description of the proposed program, including how the program will be transformational and promote economic recovery, diversification, and enhancement of the disproportionately affected counties, and (v) a summary timeline for the proposed project or program.

IMPORTANT NOTICE

This pre-application process will **not** result in an award of funding by Triumph Gulf Coast. Rather, this process is designed to facilitate submission of ideas for potential projects or programs before the Applicant expends time and/or resources to complete a full Application. All Applicants for funding are required to complete an Application, which will be scored, and then considered for award in the discretion of Triumph Gulf Coast Board.

COAST WATCH ALLIANCE • A 501(C)3 NON-PROFIT TRIUMPH GULF COAST, INC. PRE-APPLICATION PACKAGE



1. ABOUT THE APPLICANT

Coast Watch Alliance (CWA), a 501(C)3 non-profit organization, was founded in 2014 to help protect precious marine and coastal resources in the Gulf of Mexico and the Western Atlantic Ocean. We are a collaboration of divers, anglers, scientists, executives, and business owners working toward three common goals:

- To empower individuals and institutions to discover, appreciate, and defend our coastal and marine resources.
- To educate and enlist humanity to protect, restore, and conserve the quality of the natural environment.
- To exercise and the promote the responsible use of our oceans and coastal environment.

At CWA, our primary activities include:

- Bringing awareness to and actively combating invasive lionfish through community outreach and awareness, organized and systematic lionfish harvesting, and commercial market and supply infrastructure development for lionfish foodstuffs and processed products.
- Identifying, removing, and preventing the introduction of harmful marine debris including waste plastic, lost and discarded recreational and commercial fishing gear, and hazardous chemicals and compounds.
- Facilitating, through our individual expertise and organizational assets, valuable marine research initiatives including lionfish trap development and testing, fish population and behavioral studies, and remote operated vehicle (ROV) development and testing.

CWA has proudly supported and worked with a wide variety of organizations including the Florida Fish & Wildlife Conservation Commission (FWC), the National Oceanic & Atmospheric Administration (NOAA), the Alabama Department of Natural Resources (AL DNR), the Dauphin Island Sea Laboratory (DISL), the Fish and Wildlife Research Institute (FWRI), the University of Florida (UF), the University of West Florida (UWF), the University of Georgia (UG), and the Environmental Protection Agency (EPA).

2. ABSTRACT

CWA is requesting a grant of \$1,121,600.00 USD from Triumph Gulf Coast Inc. to facilitate (a) the systematic harvesting of invasive lionfish from public and private reefs within waters abutting disproportionately affected counties in Florida, (b) the coordinated removal of marine-life entanglement and navigational hazards from artificial reefs within permitted waters abutting disproportionately affected counties in Florida, (c) the processing and resale of whole lionfish, lionfish fillets, and processed lionfish foodstuffs, (d) the processing and resale of lionfish waste products including lionfish fertilizer and lionfish bone meal, and (e) the continued research and development of lionfish traps and lionfish attractant devices. A grant from Triumph Gulf Coast would (a) be matched by CWA with \$410,700.00 USD in cash reserves, physical assets, and in-kind donations...

Funding Request from
Triumph Gulf Coast Inc:
\$1,121,600.00 USD

Matching Funds, Assets,
& In-Kind Donations:
\$410,700.00 USD

New Jobs Created in First
Year with Pay Above Per
Capita Average Income:
6 Full Time / 10 Part Time

First Year Income from
Lionfish Foodstuffs &
Lionfish Waste Products:
\$993,600.00 USD

Lionfish Removed
Annually from Escambia
& Santa Rosa County:
95,940 Lionfish

Permitted Public Reefs
Maintained to JAXBO
A7.18 Standard Annually:
500 Artificial Reefs

COAST WATCH ALLIANCE

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Pensacola, Florida 32507
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FAX: 850-764-6004

coastwatchalliance.org

2. ABSTRACT (CONTINUED)

...(b) create six full-time and ten part-time jobs with pay above the average per capita income in the disproportionately affected county of Escambia within the first year, (c) demonstrate voluntarily backward-compliance with USACE, Jacksonville District, Final Programmatic Biological Opinion "JAXBO" Section A7.18 on five hundred artificial reefs within the permitted waters abutting the disproportionately affected counties of Florida, and (d) provide economic and environmental benefits to the disproportionately affected counties of Escambia and Santa Rosa by removing approximately 95,940 invasive lionfish from their abutting waters during the first year.

3. BACKGROUND

Lionfish (*Pterois miles* and *P. volitans*) are invasive, disease-resistant, generalist predators known to consume a wide variety of commercially important native fish and invertebrates^{2,3}, including Red snapper (*Lutjanus campechanus*), Gag grouper (*Mycteroperca microlepis*), and Gray triggerfish (*Balistes caprisacus*). While not the first invasive marine species introduced to our region, but they are, by far, the most successful³. Lionfish were originally introduced in the early 1980s and, since 2000³, have spread rapidly to become established throughout the southeast United States, the Caribbean Sea, and the Gulf of Mexico⁴.

Lionfish mature quickly, reproduce rapidly, and have no known predators in their invasive range^{5,6}. In the waters abutting the disproportionately affected counties of Florida, decreased native fish biomass due to the high predation rate of a rapidly growing lionfish population^{1,7} alters critical ecosystem functions and reduces its resilience to other stressors⁸. The lionfish invasion also poses dire short-term and long-term economic threats to disproportionately affected counties that depend upon the Gulf of Mexico for industry, recreation, and tourism⁹.

The lionfish invasion has progressed past the point where eradication is practical so management actions to control the invasive population must be taken. These management actions include developing responsible capture techniques and technologies and incentivizing market development for lionfish foodstuffs and products¹⁰.



PHOTO: COURTNEY PLATT

4. PROGRAM SUMMARY

CWA proposes a five-part program that is both consistent with the ongoing mission of our organization and closely aligned with the stated priorities of Triumph Gulf Coast, Inc. The primary benefits of our program include:

- Creating sixteen net-new private sector jobs with compensation above the regional per capita average income.
- Establishing an operation to manufacture sustainable, premium products for export based in Escambia County.
- Avoiding losses to existing tourism and industry by mitigating ecological stress from invasive lionfish.
- Increasing efficacy and positive environmental impact of existing government programs by managing lionfish populations and marine debris at public artificial reef sites.
- Ease and expediency of program implementation.
- Fixed and verifiable performance metrics.
- A self-sustaining program model with opportunities to scale regionally.
- Support by existing assets, in-kind donations, and matching funds.

¹ Green, S.J., Akins, J.L., Maljkovic, A., Côté, I.M., 2012. Invasive lionfish drive Atlantic coral reef fish declines. PLoS One. Vol 7: e32596.

² Green S.J., Dulvy N.K., Brooks A.L.M., Akins J.L., Cooper A.B., Miller S., Côté I.M. 2014. Linking removal targets to the ecological effects of invaders: a predictive model and field test. Ecological Applications 24: 1311-1322.

³ Schofield, P.J., 2009. Geographic extent and chronology of the invasion of non-native lionfish (*Pterois volitans* [Linnaeus 1758] and *P. miles* [Bennett 1828]) in the Western North Atlantic and Caribbean Sea. Aquat. Invasions 4, 473-479 pp.

⁴ Morris J.A. Jr., and Whitfield P.E. 2009. Biology, ecology, control and management of the invasive Indo-Pacific Lionfish: an updated integrated assessment. NOAA Technical Memorandum NOS NCCOS 99, 57 pp.

⁵ Mumby P.J., Harborne A.R., and Brumbaugh D.R. 2011. Grouper as a natural biocontrol of invasive lionfish. PLoS ONE 6(6): e21510. doi:10.1371/journal.pone.0021510

⁶ Hackerott S, Valdivia A, Green SJ, Côte IM, Cox CE, et al. 2013. Native predators do not influence invasion success of Pacific Lionfish on Caribbean Reefs. PLoS ONE 8(7): e68259. doi:10.1371/journal.pone.0068259

⁷ Albins, M.A., Hixon, M.A., 2008. Invasive Indo-Pacific lionfish *Pterois volitans* reduce recruitment of Atlantic coral-reef fishes. Mar. Ecol. Prog. Ser. 367: 233-238 pp.

⁸ Lesser M.P. and Slattery M. 2011. Phase shift to algal dominated communities at mesophotic depths associated with Lionfish (*Pterois volitans*) invasion on a Bahamian Coral Reef. Biological Invasions 13(8):1855-1868 pp.

⁹ Gittings, S.R., Tartt M., Broughton K. 2013. National Marine Sanctuary System Condition Report 2013. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of National Marine Sanctuaries, Silver Spring, MD. 33 pp.

¹⁰ Johnston, M.A., Gittings, S.R., and Morris, J.A., Jr. 2015. NOAA National Marine Sanctuaries Lionfish Response Plan (2015-2018): Responding, Controlling, and Adapting to an Active Marine Invasion. Marine Sanctuaries Conservation Series ONMS-15-01. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of National Marine Sanctuaries, Silver Spring, MD. 55 pp.

4. PROGRAM SUMMARY (CONTINUED)

The first part of our program involves the commercial harvest of invasive lionfish. Initially, our efforts will be focused in Escambia and Santa Rosa counties. There are over eight hundred public artificial reefs currently located in the waters abutting these counties and existing contracts to deploy fourteen hundred more in the coming years. Additionally, through extensive side-scan sonar work and relationships with local waterman, CWA has identified almost five thousand private reefs and structures in the same area. With an emphasis on public reefs within the limits of recreational diving, CWA will use our Coast Guard registered commercial fishing vessel, the Lion Slayer, and experienced, highly-trained divers to remove lionfish from these sites in a systematic, grid-based approach. Information collected during harvest activities will be shared with NOAA, FWC, and interested researchers at UF, UWF, and UG. CWA will remove approximately 95,940 lionfish during the first year of our program, a number roughly equal to the total commercial catch in Florida during 2017.

The second part of our program involves the removal of marine life entanglement and navigational hazards from the artificial reefs targeted during harvest activities. Effective immediately, all new reef permitted areas “must be cleaned annually to remove marine debris and derelict fishing line in areas safely accessible to recreational SCUBA divers” per the United States Army Corps of Engineers, Jacksonville District, Final Programmatic Biological Opinion “JAXBO” Section A7.18. While this requirement does not apply to artificial reefs already deployed (or under contract for deployment), the benefit of this type of maintenance is undeniable and not overly burdensome to conduct during regular harvest activities. CWA will maintain approximately five hundred public artificial reefs to JAXBO A7.18 standard during the first year of our program.



The third part of our program involves the processing and resale of whole lionfish, lionfish fillets, and processed lionfish foodstuffs. This will be accomplished by establishing a licensed, health-inspected facility in Escambia County with modern food processing, storage, and packaging machinery. Over the past few years, demand for lionfish food products has outpaced the available supply, largely due to the artificially deflated prices paid to commercial lionfish harvesters in our region. By targeting these products for export to premium markets, primarily in the Northeast United States, where the price per pound is 50% - 100% higher, CWA will create sixteen net-new jobs that pay above the average per capita income. This includes full and part-time professional positions in the manufacturing sector to address the operations, process engineering, marketing, and business development requirements of our program. CWA will generate approximately \$786,600.00 USD in gross revenue from whole lionfish,

lionfish fillets, and processed lionfish foodstuffs during the first year of our program.

The fourth part of our program involves the processing and resale of lionfish waste products including fertilizer and bone-meal. This will be accomplished by equipping our facility, at marginal additional cost, to process and package these products for export or consumption in the local market. Lionfish waste products is an untapped market with huge growth potential in future years of our program. It is also valuable in terms of operating efficiency, ensuring downtime between processing foodstuffs is filled with a productive, revenue generating activity. CWA will generate approximately \$207,000.00 in gross revenue from lionfish waste products including fertilizer and bone-meal during the first year of our program.

The fifth, and final, part of our program involves the continued research and development of lionfish traps and attractant devices. As a core component of the CWA mission since 2015, our team has extensive experience in testing and developing these devices under a Memorandum of Understanding (MOU) with NOAA and an Exempted Fishing Permit (EFP) with UG. Lionfish traps and attractant devices are the most economically viable long-term solution to manage lionfish populations based beyond recreational diving limits. Accordingly, CWA will continue to work with our research partners at NOAA at UF on this important mission, not only for the ecological benefits of increased lionfish population control but also as a long-term measure to sustain the economic benefits of our program.

5. PROGRAM TIMELINE

- MONTHS 1 – 2 – Program initiation; procure equipment, hire initial personnel. Build out and move-in at processing facility.
- MONTHS 3 – 5 – Active harvesting and resale of whole lionfish in the local market to generate revenue. Offshore marine debris removal commences. Second round of personnel hired. R&D begins on processed lionfish foodstuffs and waste products. Training for food handling, food processing, food packaging, and O2 chamber operations completed.
- MONTHS 6 – 8 – Processed lionfish foodstuffs and lionfish waste products tested in local market. Export of whole lionfish and lionfish fillets commences. Branding, marketing, and packaging for processed lionfish products finalized.
- MONTHS 9 – 12 – Export of processed lionfish products commences.