

**JUSTIFICATION FOR OTHER THAN FULL AND OPEN COMPETITION
USING SIMPLIFIED PROCEDURES FOR THE ACQUISITION OF COMMERCIAL PRODUCTS AND
SERVICES EXCEEDING THE SIMPLIFIED ACQUISITION THRESHOLD
AUTHORITY: 41 U.S.C. 1901**

Identification Number: REQUIREMENTS-25-3382

1. Identification of the agency and contracting activity.

The National Oceanic and Atmospheric Administration (NOAA), Acquisition and Grants Office (AGO), Western Acquisition Division (WAD), proposes to enter into a contract on the basis of other than full and open competition using simplified procedures for the acquisition of commercial services in support of the NOAA Fisheries and Southwest Fisheries Science Center (SWFSC), Fisheries Resources Division (FRD).

2. The nature and/or description of the action being approved.

NOAA intends to award a new contract to ICF Environmental, Inc. (ICF), a large business. A firm-fixed-price contract is contemplated for award.

3. A description of the supplies or services required to meet the agency's needs (including the estimated value).

The services required to meet the agency's needs are to conduct detailed modeling and risk assessments for a candidate finfish species identified by NOAA, using the Offshore Mariculture Escapes Genetic/Ecological Assessment (OMEGA) framework to evaluate potential genetic impacts from marine fish aquaculture, and producing a summary report of findings; designing a new streamlined genetic risk assessment methodology to enable more rapid evaluation of aquaculture impacts on wild populations, incorporating species- and region-specific biological factors and production levels; and supporting technology transfer to NOAA's Southwest Fisheries Science Center by integrating updated genetic diversity metrics into the OMEGA model, revising documentation, and developing user manuals for both existing and emerging tools.

The requirement is to provide services to FRD at an estimated total cost of [REDACTED] for a period of performance of September 30, 2026 through September 29, 2031 consisting of one (1) base year and four (4) one-year options. This will allow the SWFSC, FRD, to accomplish its mission of modeling genetic risks from aquaculture escapes on wild stocks.

4. An identification of the statutory authority permitting other than full and open competition.

41 U.S.C. 1901, using simplified procedures up to \$9M, in accordance with Revolutionary Federal Acquisition Regulation Overhaul (RFO) 12.201. In accordance with RFO 12.102, and accordingly RFO 6.103-1, only one responsible source is available to meet the government's needs, as further described herein.

5. A demonstration that the proposed contractor's unique qualifications or the nature of the acquisition requires using the authority cited.

Only one source - Only one source is capable of providing the services required at the level of quality required because the services are unique or highly specialized.

ICF has demonstrated verified experience in the OMEGA model development and analyses, possesses the required expertise, and has a proven track record of successfully executing prior requirements. ICF is the original developer of the Offshore Mariculture Escapes Genetic Assessment (OMEGA) model for NOAA. OMEGA Version 1.0 was created in 2012 to evaluate the relative risks and benefits of alternative aquaculture strategies, supporting the balance between aquaculture development and

protection of commercially valuable wild fisheries.

In 2018, ICF conducted sensitivity analyses of the model and produced an accompanying draft report, which included recommendations for scenario development using uncertainty analysis within a risk assessment framework.

ICF, in coordination with NOAA, developed aquaculture model scenarios for several candidate marine species in the Gulf of America. Between 2019 and 2024, through a series of projects (2019–2020, 2020–2021, and 2021–2024), ICF and NOAA collaborated to compile species-specific datasets for additional marine finfish under consideration for U.S. aquaculture development and to expand the model's capacity to address more complex escapement scenarios and a broader range of cultured organisms.

To date, all OMEGA model scenario development has been conducted by ICF in the context of commercial aquaculture applications. The currently active Purchase Order 1305M325P0296, expiring in September 2026, requires ongoing model development and necessary model modifications to incorporate more sophisticated scenarios, including reductions of genetic diversity in wild populations based on escape scenarios. The requirement relies on ICF's historical development and detailed knowledge of the OMEGA model to maintain continuity for further development, which, other vendors do not possess.

ICF's OMEGA model simulates a variety of escapement scenarios such as chronic leakage, episodic events, gamete dispersal, and catastrophic containment failures across timelines up to 300 years, utilizing Monte Carlo simulations to handle stochastic uncertainty. It balances three components: aquaculture operations, escapee-wild fish interactions, and wild population dynamics. OMEGA applies a single-trait phenotypic fitness model (the Ford model; Ford, 2002) to determine how the interbreeding of farmed escapees causes a wild population's mean trait values to drift away from their natural optimum, and evaluates the Ryman-Laikre effect to measure reductions in effective population size and genetic diversity. The model framework can also evaluate the effectiveness of various containment strategies, mitigation approaches, and technical advancements. The approach has been used in NOAA West Coast Regional Office Biological Opinions, on evaluations of proposed aquaculture farms in Southern California (Purcell et al. 2025a), and in Aquaculture Opportunity Area science advice documents (Purcell et al., 2025b).

ICF originally developed and has continuously modified the OMEGA model in coordination with NOAA. As a result, ICF possesses the specialized expertise necessary to perform the required updates, expansions, analysis, and technology transfer. ICF has partnered with NOAA since 2019 and has acquired detailed, architectural-level knowledge of the OMEGA model that supports management strategies addressing potential risks to marine resources. This experience allows ICF to continue developing model scenarios, evaluating model parameters, and validating the model using data from current and planned aquaculture operations without the duplication of effort, additional cost, delays, and technical risk associated with another source beginning the work without equivalent knowledge of the model.

OMEGA is the only modeling tool that currently exists to quantitatively evaluate and predict impacts of escaped non-salmonid fish on the fitness, genetic diversity, and long-term viability of wild conspecific populations. The only other models that exist, worldwide (i.e., Hindar et al. 2006 model, IBASAM – Individual Based Anadromous Salmonids Model, IBSEM – Individual-Based Salmon Eco-genetic Model, and GIRAF- Genetic Intrusion Risk Assessment Framework), are all intended for use in salmonid species exclusively. Due to the unique life-history characteristics of salmonid species, they are not suitable to address our requirement as the application of this modeling tool revolves around non-salmonid species in the United States. None of the mentioned models are commercially available or applicable to our current requirement.

If the services are not awarded to ICF, the mission would be adversely impacted because SWFSC would need to develop or acquire a replacement model and repeat substantial portions of the prior work described in Section 3. Competitively soliciting a replacement effort would result in additional cost, administrative burden, technical risk, and schedule delays. Therefore, it is in the best interest of the Government to sole source the requirement to ICF.

6. A description of efforts made to ensure that offers are solicited from as many potential sources as possible, including whether a notice was or will be publicized as required by RFO Part 5 and, if not, which exception under RFO Part 5 applies.

As required by RFO 5.101(a), a Notice of Intent to Sole Source (NOISS) for Modeling Genetic Risks from Aquaculture Escapes on Wild Stocks was posted on SAM.gov on July 2, 2026, and remained open through July 17, 2026, prior to approval of the Justification for Other Than Full and Open Competition. A single response was received from Clearwater Environmental LLC (Clearwater).

7. A determination by the contracting officer that the anticipated cost to the Government will be fair and reasonable.

The contracting officer determines that the anticipated prices will be fair and reasonable based upon a comparison with the Independent Government Estimate (IGE) and market prices for similar services. Prior to award of the proposed contract, pricing information shall be obtained from the contractor and a price analysis will be performed to sufficiently determine that the price to the Government of the proposed acquisition will be fair and reasonable in accordance with RFO 12.204(a). If pricing cannot be determined fair and reasonable, no award will be made.

8. The market research conducted (see RFO Part 10) and the results or a statement of the reason market research was not conducted.

Market research was conducted by the SWFSC and the WAD to identify available sources and to evaluate the availability of the marketplace to meet the requirement. SWFSC provided a technical assessment of Clearwater's response and determined that Clearwater did not demonstrate the capability to perform the requirement. Clearwater's submission did not provide relevant experience in ecological and genetic model development, genetic risk from aquaculture escapes modeling and concepts of methodology, developing and documenting OMEGA model assumptions, conducting OMEGA modeling and analyses to evaluate risk from candidate aquaculture species, and developing associated summary reports. Additionally, Clearwater's technical capabilities consist of basic coding, but their proposed parameters and methodology deviate significantly from peer-reviewed literature and modeling frameworks evaluating consequences of escaped fish. While the vendor possesses basic software programming capabilities, their submission demonstrates a critical lack of knowledge and expertise in marine aquaculture escape dynamics, quantitative population genetics, and OMEGA modeling frameworks.

Based on the results of market research, the government determined that ICF is the only source capable of performing the required tasks. The Market Research Report is attached for additional information.

9. Any other facts supporting using other than full and open competition.

All pertinent facts have been documented in herein. There are no additional facts to be reported in this section.

10. A listing of the sources, if any, that expressed an interest in the acquisition in writing.

In response to the NOISS, previously mentioned in Section 6, a single email submission from Clearwater was received on July 17, 2026. The capability statement was reviewed, and as described in Section 8, it was determined that the respondent was not capable of successfully performing the requirement.

11. A statement of the actions, if any, the agency may take to remove or overcome any barriers to competition before any subsequent acquisition for the supplies or services required.

The Government will conduct market research annually to gauge any changes to the marketplace regarding capabilities for future requirements. This requirement is for ongoing services and is expected to be recompeted in five (5) years. If additional sources become available during that time, the Government will seek competition for future acquisitions for these services.

12. CERTIFICATION

The JOFOC has been prepared and certified by:

Technical/Requirements Personnel:

I certify that the above narrative is accurate and contains complete data necessary to support the recommendation for other than full and open competition.



Jade Moreira
Contracting Officer's Representative

Date

13. REVIEW AND CONCURRENCE

Review:

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Alexis Portney
Attorney, Contract Law Division

Date

14. APPROVAL

Approve:

Contracting Officer

I certify this justification is accurate and complete to the best of my knowledge and belief.



Amanda Rossiter
Contracting Officer

Date