FORM CD-511
(7-91)

UNITED STATES DEPARTMENT OF COMMERCE

CERTIFICATIONS REGARDING DEBARMENT, SUSPENSION AND OTHER RESPONSIBILITY MATTERS; DRUG-FREE WORKPLACE REQUIREMENTS AND LOBBYING

Applicants should refer to the regulations cited below to determine the certification to which they are required to attest. Applicants should also review the instructions for certification included in the regulations before completing this form. Signature on this form provides for compliance with certification requirements under 15 CFR Part 26, "Governmentwide Debarment and Suspension (Nonprocurement)" and "Governmentwide Requirements for Drug-Free Workplace" and 15 CFR Part 28, "New Restrictions on Lobbying." The certifications shall be treated as a material representation of fact upon which reliance will be placed when the Department of Commerce determines to award the covered transaction, grant or cooperative agreement.

1. DEBARMENT, SUSPENSION AND OTHER RESPONSIBILITY MATTERS

As requested by Executive Order 12549, Debarment and Suspension, and implemented at 15 CFR Part 26, for prospective participants in primary covered transactions, as defined at 15 CFR Part 26, Sections 26.105 and 26.110 -

(1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1) (b) of this certification; and

(d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State, or local) terminated for cause or default.

(2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

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2. DRUG-FREE WORKPLACE REQUIREMENTS

Alternate I. Grantees Other Than Individuals

As required by the Drug-Free Workplace Act of 1988, and implemented at 15 CFR Part 26, Subpart F, for grantees, as defined at 15 CFR Part 26, Sections 26.605 and 26.610 -

A. The grantee certifies that it will or will continue to provide a drug-free workplace by:

(a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;

(b) Establishing an ongoing drug-free awareness program to inform employees about--

(1) The dangers of drug abuse in the workplace;

(2) The grantee's policy of maintaining a drug-free workplace;

(3) Any available drug counseling, rehabilitation, and employee assistance programs; and

(4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;

(c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a);

(d) Notifying the employee in the statement required by paragraph (a) that as a condition of employment under the grant, the employee will –

(1) Abide by the terms of the statement; and

(2) Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction;

(e) Notifying the agency in writing, within ten calendar days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title, to the Director, Office of Federal Assistance, Office of Federal Assistance and Management Support, HCHB Room6054, U.S. Department of Commerce, Washington, DC 20230. Notice shall include the identification numbers(s) of each affected grant;

(f) Taking one of the following actions, within 30 calendar days of receiving notice under subparagraph (d) (2), with respect to any employee who is so convicted-

(1) Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or

(2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;

(g) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a), (b), (c), (d), (e), and (f).

B. The grantee shall insert in the space provided below the site(s) for the performance of work done in connection with the specific grant:

Place of Performance: (Street address, city, county, state, ZIP code):
600 Capitol Way N
Olympia, Thurston County, WA
98501-1091

Check ☐ if there are workplaces on file that are not identified here.

Alternate I I. Grantees Who Are Individuals

As required by the Drug-Free Workplace Act of 1988, and implemented at 15 CFR 26, Subpart F, for grantees, as defined at 15 CFR Part 26, Sections 26.605 and 26.610 -

(A) The grantee certifies that, as a condition of the grant, he or she will not engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance in conducting any activity within the grant;

(B) If convicted of a criminal drug offense resulting from a violation occurring during the conduct of any grant activity, he or she will report the conviction, in writing, within 10 calendar days of the conviction, to the Director, Office of Federal Assistance, Office of Federal Assistance and Management Support, HCHB Room 6054, U.S. Department of Commerce, Washington, DC 20230. When notice is made to such a central point, it shall include the identification number(s) of each affected grant.

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3. LOBBYING

As required by Section 1352, Title 31 of the U.S. Code, and implemented at 15 CFR Part 28, for persons entering into a grant, cooperative agreement or contract over$100,000, or loan or loan guarantee over $150,000, as defined at 15 CFR Part 28, Sections 28.105 and 28.110, the applicant certifies that to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Statement for Loan Guarantees and Loan Insurance

The undersigned states, to the best of his or her knowledge and belief, that:

If any funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this commitment providing for the United States to insure or guarantee a loan, the undersigned shall complete and submit Standard Form -LLL, "Disclosure Form to ReportLobbying," in accordance with its instructions.

Submission of this statement is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required statement shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

As the duly authorized representative of the applicant, I hereby certify that the applicant will comply with the above applicable certification(s).

NAME OF APPLICANT	AWARD NUMBER AND/OR PROJECT NAME
William C. Brooks C.P.M. Contracts Officer	
PRINTED NAME AND TITLE OF AUTHORIZED REPRESENTATIVE: William C. Brooks C.P.M. Contracts Officer	
SIGNATURE	DATE
[signature]	8.20

Part 4 Narrative Project Description

(a) Project Goals and Objectives

> Our goal is to evaluate the tangle net as a selective fishing gear allowing live release of non-target species, while maximizing harvest opportunities.

This project addresses funding priority A "Conservation Engineering".

In the Pacific northwest, salmon may be harvested in mixed stock fisheries where different species and stocks intermingle. This is a problem because weaker species and stocks are caught inadvertently by fishers targeting salmon from stronger runs. Protecting weak salmon stocks has required unprecedented reductions in the harvest of salmon, even though there are healthy stocks that could be exploited if the weak stocks could be avoided or released unharmed. One way fishers can contribute to conservation is through selective harvesting technologies and practices which would allow a continued harvest, while protecting weak stocks. "Selective fishing" means "the ability to target and capture fish by species, size or sex during harvesting operation, allowing all by-catch to be released unharmed. By-catch may include small (juvenile) fish, non-target fish species, birds and other marine organisms encountered during fishing" (United Nations FAO, 1994, Expert Consultation for the Code of Conduct for Responsible Fishing Operations). For the Pacific Northwest, the definition of by-catch must be expanded to include non-target stocks of a fish species.

Traditional gill net fisheries are generally lethal to all fish caught in the net, whether or not they were the target of the fishery. While a few fish can be released live from gill nets, survival tends to be low and many non-target fish are dead even before they are brought on board. Because of this shortcoming, the only practical way these traditional gears can be more selective for the target species is by time and area closures. While these restrictions can be very efficient at reducing by-catch, they necessarily reduce fishing opportunity for the target species.

While it has not yet been used in Washington, the tangle or tooth net is being examined in British Columbia as an alternative selective gear to gill nets. A tangle net is analogous to a small meshed gill net (mesh size is 3.5") made from multifilament web, and tangles the fish by the maxillary or teeth rather than gilling the fish, which allows the fish to continue respiration and be released live. In an ongoing study, a Fraser River fisherman has had encouraging results live-releasing salmonids of all species from a tangle net. The evaluation of the survival of these fish to spawning is still in progress, but the initial results are promising (Table 1; and see excerpt from Parfitt, 1998 and supporting documents by W.M. Petrunia). Furthermore, because of the careful handling and the high quality of fish caught, the market value of the catch has been significantly higher than from conventional gears. Because careful release of live fish requires more time than a conventional fishery, the catch per unit effort is generally expected to be low. This could be mitigated by allowing longer fishery openings, and if tangle nets are successful, by the increased opportunity which may be available. We propose testing a tangle net as a selective alternate to conventional gill nets. Our project will build on the Fraser River study. The applicability of the gear to other fishing areas is unknown, and the long term survival of fish released from the gear has not been evaluated. We will be targeting a different species, in different fishing conditions than on the Fraser River.

Table 1: Catch and mortality from tangle net experiments, 1996 to 1998. From "Fishing salmon selectively", a report on the technical workshop held in Richmond, B.C., Nov 4-5, 1998. (Please see attached supporting documents)

Species Caught	Number caught	Immediate mortality
Coho	2134	63 (2.9%)
Chinook	1347	21 (1.6%)
Steelhead (net was modified with a large meshed panel to allow steelhead to pass through the net unharmed)	7	0 (0%)
Sockeye	4944	481 (9.7%)
Chum (target species in this fishery)	9000	45 (0.5%)

In Puget Sound, gill nets are typically fished by either setting the whole net and allowing it to drift, or by securing the net in one location, in which case it is referred to as a set net. Set net gill nets are typically tribal fisheries in more terminal areas than drift gill nets. Most non-tribal commercial fishers use drift gill nets, and tribal fishers also use this gear. Both methods of fishing could benefit from the tangle net. Because these fisheries have been severely restricted to protect weak stocks, tribal and non-tribal gill netters alike are keen for more fishing opportunity; tangle nets may be a tool to help provide that. An initiative is currently before the citizens of Washington that proposes banning all non-tribal commercial netting for salmon in Washington waters. If this bill passes, non-tribal fishers will obviously not benefit from a selective tangle net. The ban will not apply to tribal fishers, but if it does pass, they may come under increased political pressure to reduce by-catch. If it works well, the tangle net could be an important tool in meeting that need while still providing fishing opportunity.

Our goal is to evaluate tangle nets as selective fishing gear to allow exploitation of strong anadromous fish stocks while minimizing impacts on depressed fish stocks. We expect to be able to answer four general questions. First, can we capture the target species using the tangle net? If so, are we able to release more fish live from the tangle net than conventional gear, and is the live release rate acceptably low? If we can release fish, do they survive to complete their migration?

We have five objectives to address these questions:

Objective 1: Estimate the catch per set to +/- 10% at 95% confidence for the tangle net and conventional gill nets. Estimate the age and size for each species caught to +/- 10% at 95% confidence for the tangle net and conventional gill nets.

Assumptions: Target fish are present and available to be caught during the test fishery. The conventional gear will be fished without extra bias caused by participation in the study, so the catch will reflect the actual commercial fishery. When subsamples are required, all fish caught in the net have an equal chance of being sampled.

a) Prepare and purchase gear, contract with fishers, train technician.
b) Fish tangle net and conventional gear at several locations for several target species. Randomize the site selection by day.
c) Collect biological data about catch, tag fish with numbered visual tags.

d) Compare the estimates of stock composition of the catch from the tangle net with the catch from the conventional gill net.

Objective 2: Estimate the proportion of fish caught in the tangle net and in the conventional gill net that is brought aboard dead (can not be revived) by species, to +/- 2% at 95% confidence for each set.

Assumptions: The tangle net does catch fish. Fishing and handling techniques will be modified during the study so that mortality can be minimized as our experience grows.

a) Estimate the number of fish from each set that were brought aboard dead after capture in the tangle net or in the conventional gear.
b) Estimate the number of fish of each species, size, age and condition grade that were released live. For each fish released live, biological data will be collected to classify the fish.
c) Document the soak times, hang ratios, and net lengths that maximize the survival of captured fish.

Objective 3: For each species, estimate the percentage of fish released from the tangle net and conventional gear that survive to complete their migration, to +/- 25% at 90% confidence.

Assumptions: Enough fish can be caught and tagged and enough tags recovered for statistical analysis. A sampling effort can be assigned so the tag recoveries can be expanded. A fish which is recovered at a hatchery rack or trap will be classified as having completed its migration, even though we can not be sure it wouldn't have continued on to some other location than the place where it was trapped. A fish that survives 24 hours will survive to complete its migration. Capture and handling, rather than the presence of a tag are the causes of differential mortality between captured and uncaptured fish.

a) Notify as many people as possible who are likely to recover a tag about the study. Visit sports groups, fishers, hatcheries, and biologists in person.
b) Monitor recapture rates of tagged fish in our experiment and in nearby fisheries.
c) Hold fish for 24 hours in individual containers to observe mortality. At some sites, we will also have access to net pens for holding fish. At these sites, we may hold fish longer than 24 hours to observe short-term mortality.
d) Estimate the long-term survival of released fish by recovering tags at spawning grounds and hatcheries.

Objective 4: Coordinate activities with fishery co-managers and fishers. In Washington, the fisheries are co-managed by the Washington Department of Fish and Wildlife (WDFW) and the Treaty Tribes of Washington State. Because the Treaty Tribes influence and participate in statewide fisheries management and research, we will notify and address comments from all of them, but will work closely with only those tribes whose usual and accustomed areas include or are near our test fishing sites.

a) Coordinate all objectives, tasks and activities of the project to ensure that all impacts or take of fish, whether listed under the ESA or not, will be consistent with agreements, policies and management principles of the fishery managers.

b) Coordinate selection of specific fishing times and places to ensure that the objectives of all parties will be met. Obtain necessary permits to conduct fishery.

c) Promote dialogue and participation by all parties affected by the development of selective fishing gear.

d) Host meetings as needed with involved and interested parties to refine work plans and report on progress.

(b) Project Impacts

If the tangle net can be adapted to catch the target species while live releasing non-target species, we could expect the mortality of non-target species to drop from virtually 100% by conventional gill nets to less than 10%, and likely less than 5%. This lower mortality of by-catch in the tangle net could increase the fishing opportunity in areas where it has been restricted to protect weaker stocks, while not jeopardizing those stocks. Although we will be testing the gear in Puget Sound, the results should have application to other areas and other species, although the fishing technique may need adjustment for local conditions.

Two other benefits may be realized if this gear is successful. First, the Fraser River fisherman reported that his careful handling and live capture method provided an excellent quality of fish that increased the value of his catch on at least one occasion by 10 times. If even part of this increase in value could be realized, it would be an economic boost to the fishers. Second, tangle nets could be a useful and relatively low stress tool for collecting live adults.

We will share the results of the experiments with fishers and resource managers and in Puget Sound and other areas where this technology might be viable. We are already sharing information about selective fishing gear with Fisheries and Oceans Canada, and will continue this cooperation. We will prepare semi-annual reports for distribution to interested parties, give oral presentations for interested parties and promote discussion. We will travel to areas where interest is this technology is high. Finally, we will submit an article to a peer-reviewed journal at the completion of the study.

(c) Evaluation of Project

Objective 1 is designed to measure our ability to catch the target fish using the tangle net, and compare the size of the catch to that obtained by a conventional gill net. The number of target fish caught will be recorded for each fishing trip and the results for each gear statistically compared. The catch per unit effort will be calculated and compared for each gear. We will consider ourselves successful at catching the target fish if there is no statistical difference between the two gears. However, a reduction in catch by the tangle net may still be a success if it is judged that a higher value of the catch can compensate for fewer fish, or if the ability to release by-catch alive will, over the fishing season, actually allow the fishers to catch more target fish because of longer openings. These criteria would have to be evaluated at the conclusion of the study by the co-managers and the fishers.

By comparing the stock composition of each set in conventional gears and the tangle net, we will be able to evaluate how well the non-target species avoid the gears. We will consider the tangle net successful in this regard if the levels of by-catch are not statistically different or if the by-catch in the tangle net is lower than conventional gear. However, a higher rate of by-catch in the tangle net might be mitigated by high survival of released fish. This will be evaluated at the conclusion of the study.

Objective 2 examines the immediate effect of the tangle net on fish mortality, and the potential for live fish release. The proportion of fish brought on board dead and the proportion released live will be estimated for each set and for each species. The effects of fork length, fishing methods (soak time, net length, etc.), and water temperature on mortality will also be examined. We will look at trends over time because we expect that experience will help decrease mortality. Our success in achieving this objective will be measured by obtaining a large enough sample size to accurately estimate immediate mortality.

Objective 3 examines the post-release survival of fish caught in the tangle net. A recovery of a tag will indicate short-term survival if the tag is recovered anywhere other than a hatchery rack or spawning ground. The percentage of live fish of each species remaining after 24 hours of holding will be estimated for each species caught and by condition grade when brought on board. In each case, observations of a recapture will be related back to the fish's condition when it was brought on board in the tangle net. Our success in achieving this part of objective 3 will be measured by holding enough live fish for a statistically valid estimate of survival. We will consider the tangle net a success in reducing short-term mortality if more than 90% of the fish we hold survive.

The long-term survival will be estimated by recovering tags on spawning grounds and at hatcheries. The recovery of an individual fish will be related to its condition when it was brought on board in the tangle net. The tag recovery effort will be estimated and the recoveries expanded to estimate the survival. Our success in evaluating survival will be measured by recovering enough tags for a statistically valid comparison. We will consider the tangle net a success if we estimate that at least 75% of the released fish complete their migration.

Objective 4 is to coordinate with the fishery co-managers and fishers. Our success in achieving this objective has already begun by our gaining support and participation from the Squaxin Island and Suquamish tribes. These tribes co-manage the fisheries in the sites where we are considering for testing the tangle nets. Our continued success will be measured by the participation of tribal and non-tribal fishers in testing the gears. In some of the sites where we may like to test the gears, there is potential for conflicts with sport fishers. Once the final sites are chosen, we will work with sport fishing groups to minimize and eliminate any conflicts. Our success with be measured by achieving this cooperation.

(d) Need for Government Financial Assistance

Part of the mission of WDFW is to practice sustainable management of marine resources to maintain the economic well-being and stability of the state's fishing industry and to enhance recreational and commercial fishing in state and offshore waters. In keeping with this mission, WDFW supports the development of selective fisheries to protect weak stocks while still allowing fishing opportunity. Considerable progress has already been made to provide selective sport fisheries. Hatchery coho and chinook are being mass marked by excision of the adipose fin so that recreational fishers can distinguish them from naturally produced fish, and release the naturally produced fish. In addition, Washington's commercial fishers in 1999 will be using innovative techniques supplemented with restrictions and monitoring requirements to protect wild chinook and coho salmon while harvesting fish from strong runs, principally sockeye, pink and chum. Highlights of the innovations and restrictions for commercial fishers include:

- Barring commercial fishing when and where significant numbers of protected wild stocks congregate and migrate.
- Requiring purse seine fishers to release all chinook and to use a netting technique known as