



American Fisheries Society

Western Division

President Leanne Roulson, President-elect Lori Martin, Vice-president Dave Ward, Secretary-Treasurer Mary Buckman, Past-president Scott Bonar

Western Division Executive Committee Meeting
April 19, 2010
Salt Lake City, Utah

Roll Call: Leanne Roulson, Lori Martin, Dave Ward, Mary Buckman, Kelly Stockton (Idaho Student Sub-Unit), Travis Neebling (Newsletter Editor), Nate Cathcart (Col/Wyo Student Sub-Unit), Eric Knudsen (WA-BC), Michelle Workman (Cal-Neva), Anne Widmer (Col/Wyo), Lisa Stuby (AK), Mike Mills (Utah), Eric Wagner, Bob Hughes, Rich Grost (OR). Erin Lowery (WA-BC), Don Jackson and Wayne Hubert joined the meeting in progress.

A quorum was established.

Minutes: Minutes of the March 11, 2010 conference call were approved as distributed.

President's Report: President Roulson reported on topics discussed at the Governing Board including moving to electronic journals, Gus Rassam retiring in a couple years and the Pebble Mine Resolution. She also met representatives of Garcia and Associates to download files for the Western Native Fishes database. This attempt was unsuccessful, but they will mail the appropriate information. Leanne plans to continue work to make the data accessible, current and accurate.

Treasurer's report: Treasurer Mary Buckman reported the Division had \$68,865.52 in the bank in checking and CD accounts. She presented the year-to-date budget status showing saving in some areas and extra spending in others. The picture will be clearer after the Salt Lake City meeting. The Grants Endowment Fund has \$174,592.34 with \$148,455.87 belonging to the Division and the remainder to 4 chapters. The fund has done well during the recent months.

Investment Committee Update: Eric Knudsen described the structure and history of the Grants Endowment Committee. It has 3 subcommittees – investment, grant spending and fundraising. The committee-recommended criteria for distribution of the fund was to base spending on average return for past 5 years and spend based on that return, spending ½ that percentage each year with ½ of that percentage remaining in the fund. This strategy is based on the successful Alaska Permanent Fund. Discussion followed regarding spending criteria. A motion was made to, starting in FY10-11, determine the average percent gain/loss on the fund since its inception, or the last 10 years; determine ½ that percentage; apply that percentage to the fund balance; and make that amount of money available for grants in that FY. The motion was amended to apply a cap of \$5k until changed by the ExCom. The amendment passed. The amended main motion passed.

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Grant Proposals: Student groups presented proposals for funding.

- North Fork of the Cache la Poudre River native fish sampling (Colorado State Student Sub-Unit): Nate Cathcart presented the proposal requesting \$2,000. The area has not been sampled for many years. They are approaching other partners as well and are borrowing equipment from the Fausch lab. There were questions about data management, site selection and data analysis. They are trying not to be overambitious, relying on enthusiasm, but recognizing this is a big commitment for undergraduate students. Responding to a question about insurance, Nate replied that students would have to sign an insurance waiver form. Responding to a question about funding, he thought could still pursue the project with \$1500 to get what they need in the beginning.
- Student Colloquium (Palouse Student Sub-Unit): The Colloquium is in its third year and is scheduled for October 2010 in Idaho. The request is for \$1500. Activities planned include a guided jet-boat trip on Hell's Canyon; field activities relevant to the local area; social events; and presentations of student research, both oral and posters. Attendance is growing and is a mix of graduate and undergraduate students. The suggestion was made that outreach be increased, perhaps by contacting Chapter presidents and they outreach to the student Chapters. Options to reduce funding and the need for insurance were discussed.
- Sampling boat purchase (Coastal Watershed Institute): Representatives were not at the meeting. The request is for \$4482 to purchase a boat. It was noted that the proposal was well written. Discussion ensued about whether we have funded this sort of large equipment, whether Division contribution would be a significant dent in the project, and if partial funding would be useful.

Presenters were asked to leave the discussion and the group discussed options. We have already spent \$1,500 of the \$3,000 in the budget on the Colloquium in 2009. It was decided that it is appropriate to fund the Colloquium, should we choose to do that, at this time to ensure certainty of funding for planning purposes. The criteria suggest that projects connected to AFS would take priority.

It was moved and seconded not to fund Coastal Watershed Institute request for funding for a boat. The motion passed unanimously.

We discussed whether the Colloquium should be a budget line item. In the Midwest Division the Student Colloquium was funded for the first two years based on student paying and by the 3rd year, it was a budget line item. The Midwest Colloquium cost less money. If we fund this item, it was noted that we should require a report and budget accounting.

We discussed the sampling proposal noting that it is a good idea, good effort to get baseline data would be valuable, and that very little sampling has been done. Concerns are that sample sizes were not discussed, plans to sample in May seemed unlikely based on the current status of the project, State agencies had not been approached, the Colorado-Wyoming Chapter had not been approached, and educators were not been identified as being involved. As a general policy, it was

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suggested that proposals need a sign-off from a faculty advisor. It was noted that the Division should send funds the Sub-Unit and the Sub-Unit pay the workers.

It was moved, seconded and approved unanimously to fund the Student Colloquium \$1,000 contingent on their providing evidence of insurance, a post-event financial report and a report to the Division and to the Tributary.

Regarding the sampling proposed by the Colorado Sub-Unit, it was moved and seconded that the Division will support funding up to \$1250 contingent on them presenting a revised proposal that includes experimental design, sampling and analysis plan; a more detailed budget; evidence that they approached agencies and other funding sources; a sign off from a faculty advisor; and a report of results. The motion was amended to include a letter of support from the agency, including evidence of a collection permit, and that they are paid ½ up front and ½ upon receipt of the report. The amendment passed and the amended main motion passed.

2011 Annual Meeting: Eric Knudsen presented information about the meeting, held in Seattle at the Washington Trade and Convention Center on September 4-8, 2010. They are anticipating 3,000-3,500 people and have about 50 volunteers. Western Division is a co-sponsor and co-host. He noted it is important to define the role of WD in the planning. Also, we need to develop an MOU between WD, the Parent Society and the WA-BC Chapter regarding responsibilities and profit-sharing. For recent meetings, the profit-sharing was 70% to the Parent Society, 20% to the chapter and 10% to the division. The agreement from the San Francisco meeting might be a template, but there was concern from others that it was too brief. Late payment to divisions and chapters was also a concern that should be specified in a contract. Division responsibilities described in the MOU should include the business meeting (planning for, financial arrangements, etc.) and some fundraising. Eric presented a short promotional video.

2010 Western Division Annual Meeting: Mike Mills stated that there are 290 registrations at last count. The budget suggests that 400 registrants are needed to break even. The meeting is committed to 1000 room-nights at the Radisson and we are likely to be short. We have started negotiating and moved events to the hotel to reduce debt to hotel. If we fail to meet food sales at the Salt Palace, we will have a \$1500 penalty. Overall, however, the meeting appears to be falling into place and volunteers are on task.

Volunteers for open positions: Leanne Roulson led a discussion of open positions within the Division.

- Nominating committee representative (Parent Society) – Don Martin had done this for many years. This needs to be someone who is well-networked. Names suggested were Katherine Boyer, Don McDonald, and Tom McMann.
- Resolutions Committee representative (Parent Society) – Dennis Rickey is chair and wants a Division representative. Names suggested were Bruce Reiman, Kirk Schroeder and Carol Woody.
- Audit Committee (Parent Society) – Mary Buckman or Lori Martin were suggested, depending on whether it needs to be someone on the Governing Board or Management Committee. Lori will check on that.

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- Water Quality Section “lead” (Parent Society) – The Section Chair wants representative from each division who is knowledgeable about water quality. Rick Wilkinson of Idaho Power was suggested, as was looking at the affiliations of existing members of the Section.
- Meritorious Service Committee (Parent Society) – This is needed ASAP. It was suggested to contact past winners such as Joe Margraf and Jim Reynolds.
- Environmental Concerns Committee co-chair (WDAFS) – Bob Hughes is chair. This is a very active committee, so it is better to have co-chairs. Travis Neebling was suggested as a candidate.
- Western Native Fishes Committee (WDAFS) – Leanne Roulson volunteered herself and read some names from a previous meeting. The duties include plan, design and test a web-based user interface; work with native species coordinators to get updates from states; and proof the map or find someone who can. Some names suggested were Ernest Keely, Mike Crisp, Vaughn Paragamian, John McCoster, Molly Halleck, Mike Hogstrum and Paul Burnett. California representation is needed. It was also noted that assistance was provided by the University of Redlands, hired by the WDAFS.
- Incoming vice-president nominees (WDAFS) – She has three names and will be contacting people.

Resolutions: Bob Hughes presented the history and updates on the Bristol Bay Resolution (attached, previously referred to as the Pebble Mine Resolution). It went to the Governing Board and it was noted that the resolution was not the same as that passed by the Division in 2009 in Albuquerque. It has been updated to make it current, add references and footnotes and better document the evidence.

Discussion ensued regarding wording that made it clear that the Resolution be sent to the Resolutions Committee of the Parent Society for their further consideration. It was moved, seconded and approved to add wording to that effect.

Lisa Stuby stated that the AK chap feels this may be premature as the most current project has not submitted an EIS or gone into the permitting process and this resolution may polarize the situation. Concerns were expressed that by the time a plan is at the EIS stage, it is a lot harder to interrupt or make changes to a plan. Lisa stated that we must proceed carefully and be sure that our information and actions are based on the best science.

It was moved and seconded that we approve the Bristol Bay Resolution with an additional clause that states the Resolution will be forwarded to the Parent Society. Lisa Stuby abstained and motion passed unanimously.

It was moved, seconded and approved unanimously to forward the Bristol Bay Resolution, as amended, to the membership at the Western Division Business Meeting.

Eric Wagner presented the Illegal Stocking Resolution (attached) brought forward by the Colorado/Wyoming Chapter. This Chapter had a symposia regarding illegal stocking and Brett Johnson from the Chapter wrote an article for Fisheries. It was moved

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and seconded to adopt the Resolution and move it forward as written. The motion was amended to further resolve to send the Resolution to the relevant fisheries management agencies in the Western states; their Fish and Wildlife commissions and to post it on the Division website. The amendment passed unanimously. The amended motion passed unanimously.

Mentee nominations: Ward led a discussion of Parent Society mentoring opportunities for future leaders, students and young professionals. Mentees will participate in leadership roles in the Parent Society. There may be travel support available from the Parent Society. Please submit names to Dave or to Leanne within the next month.

Don Jackson noted the US Fish and Wildlife Service has grants for Native Americans. This is restricted to undergraduates and asked people to submit nominations to Don or the Equal Opportunity Section.

Student involvement in the Western Division: Kelly Stockton led a discussion regarding ways to increase student involvement and participation in the Division. There is a lot of turnover among students and contact is difficult. It was noted that involvement is a two-way street and some responsibility lies with students to seek opportunities. Suggestions included better Web links to student activities and student sub-units, a student subsection of the Education Committee, a generic gmail account that all student subunits can use, and a student member of ExCom. WA/BC added a student member, elected in the annual election process. We will also investigate changes to the bylaws that might be needed to have a student ExCom member.

Procedures manual update: Lori Martin reported that the manual is in progress, targeting distribution of a first draft this summer.

New business: Javier Linares of the Fish and Wildlife Service is seeking fisheries specialists to help with review of hatcheries in CA. They will begin with the Cal/Neva Chapter but also want experienced folks from other states. They want to begin the process in July.

The next conference call will be May 13, 2010.

Submitted by Mary Buckman, Western Division Secretary-Treasurer

Approved 5/13/2010

ANNUAL MEETING, SALT LAKE CITY, UTAH, 22 APRIL 2010
RESOLUTION OF THE WESTERN DIVISION AMERICAN FISHERIES SOCIETY (WDAFS)

RECOMMENDING A FORMAL INDEPENDENT SCIENTIFIC REVIEW AND SURVEY OF POTENTIAL ENVIRONMENTAL AND SOCIOECONOMIC CONSEQUENCES OF LARGE-SCALE MINERAL EXTRACTION IN THE BRISTOL BAY WATERSHED

WHEREAS the mission of the American Fisheries Society (AFS), the oldest and largest professional society representing fisheries scientists and managers, is to improve the conservation and sustainability of fisheries resources and aquatic ecosystems by advancing fisheries and aquatic science;

WHEREAS, Alaska clearly needs to use both renewable and nonrenewable resource development for economic support; and

WHEREAS revenue derived from responsible use of fish, oil, mineral, and timber resources provides employment and an improved quality of life for many Alaskans; and

WHEREAS the Constitution of the State of Alaska requires the legislature to provide for use, development, and conservation of all State-owned natural resources for the peoples' maximum benefit; and requires that renewable resources such as fish, forests, and game belonging to the State be developed and managed sustainably¹; and

WHEREAS the debate over the development of the Pebble copper deposit in the headwaters of Bristol Bay pits two of Alaska's most important industries against each other with each side claiming science will support its case; and

WHEREAS the Pebble claim in the Bristol Bay watershed is part of a massive low grade porphyry copper sulfide deposit estimated to contain about 94,000,000 ounces of gold, 72,000,000,000 pounds of copper, and 4,800,000,000 pounds of molybdenum², the development of which may require: an open pit mine³ (~2 mi long X ~1.5 mi wide X ~1,600 ft deep); an underground mine; dams at or above 700 ft in height³; a ~ 100 mile long road; development of a port facility on Cook Inlet for fuel and concentrated mineral storage⁴, and an estimated 294 million gallons of water annually⁵; and

WHEREAS the region that contains the Pebble copper deposit has porous alluvial soils⁶; abundant ground and surface water⁷; interconnected watersheds; undefined seismic faults; significant seismic activity⁸; is not well buffered⁷ and contains a high proportion of acid-generating sulfides⁹, which can cause acid mine drainage¹⁰; and

WHEREAS slight increases in dissolved copper concentrations in water as low as 2-10 ug/L above background can alter the olfactory-mediated survival and migration of salmonids¹¹; and

WHEREAS Bristol Bay is home to the world's largest wild sockeye salmon fisheries; and sustains healthy productive fisheries on other salmonids, herring, and crab; the seafood

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industry there employs about 10,000 people annually; gross earnings reported in 2007 were over \$US 100 million in international sales¹²; and

WHEREAS the rivers and groundwater draining the Pebble copper deposit are essential to spawning, incubating, rearing and migrating salmon and non-salmon fishes and drain into waters supporting diverse Bristol Bay fisheries; and

WHEREAS Alaska Native peoples have relied on annual salmon returns to the rivers draining the Pebble copper deposit for subsistence for thousands of years and today salmon still comprise 60% to 80% of their total subsistence harvest¹³ which for the last 20 years has averaged over 100,000 salmon annually from the Nushagak and Kvichak drainages alone¹⁴; and

WHEREAS the Pebble copper deposit lies under state land straddling both the Nushagak and Kvichak drainages, is adjacent to Lake Clark National Park and Preserve, is about 15 miles upgradient of Lake Iliamna where millions of sockeye fry rear annually, and is in headwaters of the Nushagak, a major Chinook salmon producer; and

WHEREAS a 2007 study of sportfishing economic impacts by the Alaska government indicated expenditures to be \$1.4 billion dollars generating 15,879 jobs; of which, \$989 million and over 11,000 jobs were attributed to the Southcentral region which includes Bristol Bay¹⁵; and

WHEREAS the Alaska Department of Fish & Game estimates the Bristol Bay exvessel commercial salmon fishery as having an average annual value of \$65 million (\$113.3 million in 2008)¹⁶; and the Nushagak and Kvichak River drainages containing the Pebble copper deposit have produced about 50% of all commercially harvested sockeye salmon from Bristol Bay for 125 years¹⁷; and

WHEREAS open pit mining requires rigorous scientific studies for design, execution, and mitigation of environmental impacts; including careful consideration of potential negative environmental consequences, including effects on water quantity, quality, and fishery resources¹⁸; and

WHEREAS: the U.S. Environmental Protection Agency estimates that there are 500,000 abandoned mines in the U.S. and that 40% of western watersheds are polluted from mining¹⁹; clean up costs are estimated to be from \$32 - 72 billion²⁰; many mines slated for clean-up require long-term or perpetual water treatment; and such extensive ongoing water contamination threatens both the Nation's drinking water supplies and valuable fisheries resources; and

WHEREAS the U.S. EPA has developed and implemented a statistically and ecologically rigorous environmental monitoring and assessment program for the inland waters of the U.S.^{21,22,23}; and the states of Oregon²⁴, Maryland²⁵, Idaho²⁶, California²⁷ and Washington²⁸ have used intensified versions of the EPA protocol to assess status and trends in salmon and trout populations and aquatic biological condition,; and

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WHEREAS AFS Policy 13 on Surface Mining encourages (1) “diligent regulation of all surface mining by local, state, provincial, and federal government to provide adequate protection (of) aquatic resources” and (2) “its members to become involved in this process by providing technical information essential for protection and continued propagation of fishery resources to policy makers so decisions are made on a scientific, rather than emotional or political, basis”; and

WHEREAS it is important that the Alaska Legislature, and State and Federal resource managers have the best possible information with which to base policy decisions regarding the potential for development of the Pebble mineral deposit, together with the potential environmental consequences of that development;

NOW, THEREFORE, BE IT RESOLVED that the WDAFS recommends application of carefully designed, robust, and statistically defensible sampling be conducted relative to both surface and groundwater quality and quantity for consideration in applicable regulatory processes including the National Environmental Policy Act (NEPA) process; that careful attention be afforded to the design of a long term monitoring program for waters draining the prospect; that control sites should be included to enable long-term monitoring for change resulting from mine development with particular emphasis on water budgets and water quality, and their effects on aquatic resources; and

BE IT FURTHER RESOLVED that the WDAFS recommends that results of all scientific studies relevant to the Pebble copper prospect be provided in the form of standard citable scientific technical reports to the public via a website, to relevant resource managers, and a team of independent scientific experts, such as the National Academy of Sciences for peer review; and

BE IT FURTHER RESOLVED that the WDAFS recommends an independent, interdisciplinary expert assessment of the known and probable cumulative environmental and socioeconomic consequences of development of the Pebble mineral deposit prior to mine development with a focus on hydrological systems, water budgets, water quality, geochemistry, and fishery resources, with identification of any major data gaps in the preceding information; and that such an assessment should include all infrastructure necessary to implement the project.

AND, BE IT FURTHER RESOLVED that this resolution be sent by the WDAFS to relevant decision makers, scientific agencies, and regulatory agencies including, but not limited to, the following:

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1) Alaska Legislative Council
716 W 4th Avenue #200
Anchorage, AK 99501

2) Sean Parnell, Governor
State of Alaska
Box 110001
Juneau, AK 99811-0001

3) Lisa Jackson, Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, DC 20460
jackson.lisa@epa.gov

4) Jane Lubchenco, Administrator
National Oceanic & Atmospheric
Administration
1401 Constitution Avenue, NW
Washington, DC 20230
jane.lubchenco@noaa.gov

5) Mike Pool, Acting Director
Bureau of Land Management
1849 C Street NW, Room 5665
Washington, DC 20240
Mike_pool@blm.gov

6) E. William Colglazier, Executive Officer
National Research Council
500 Fifth Street NW

Washington, DC 20001
ecolglazier@nas.edu

7) LaVerne Smith
U.S. Fish and Wildlife Service, Alaska
Region
1011 E. Tudor Road, MS 361
Anchorage, AK 99503

8) John Hilsinger, Director
Alaska State Dept of Fish and Game
Head Quarters
PO Box 115525
Juneau, AK 99811-5525

9) Denby Lloyd, Commissioner
Alaska State Dept of Fish and Game
Head Quarters
PO Box 115525
Juneau, AK 99811-5525

10) Nancy Sutley, Chair
Council on Environmental Quality
1600 Pennsylvania Avenue NW
Washington, DC 20500

11) Suzette Kimball
Acting USGS Director
12201 Sunrise Valley Drive
Reston, VA 20192

- 1) <http://www.legis.state.ak.us/cgi-bin/folioisa.dll/acontxt>
- 2) <http://www.northerndynastyminerals.com/ndm/home.asp>
- 3) <http://www.dnr.alaska.gov/mlw/mining/largemine/pebble/2006/damaap.pdf>
- 4) <http://www.dnr.alaska.gov/mlw/mining/largemine/pebble/2006/swutorig.pdf>
- 5) <http://www.dnr.alaska.gov/mlw/mining/largemine/pebble/2006/gwsfkfinal.pdf>
- 6) HDR Alaska and CH2Mhill. 2008. Report Series C-Surface Geology: Report C1, Surficial Geologic Map of the Pebble Project;
- 7) HDR Alaska and CH2Mhill. 2008. Report Series F: Groundwater and Surface Water Quality, Report F-2, Mine area-surface water 2004-2007.
- 8) <http://earthquake.usgs.gov/eqcenter/recenteqsus/Maps/special/Alaska.php>
- 9) Draft Environmental Baseline studies 2004 Progress Reports, Chapter 8, Geochemical Characterization and Metals Leaching/Acid Rock Drainage, Northern Dyanasty Mines Inc., June 2005.
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- 12) <http://www.sf.adfg.state.ak.us/Statewide/economics/>
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- 15) <http://www.sf.adfg.state.ak.us/Statewide/economics/>
- 16) 2008 Bristol Bay Salmon Season Summary (commercial harvest) <http://www.cf.adfg.state.ak.us/region2/finfish/salmon/bbay/brbpos08.pdf>
- 17) Fair, L. 2003. Critical Elements of Kvichak River Sockeye Salmon Management. Alaska Fishery Research Bulletin; Vol. 10, No. 2. and 2008 Bristol Bay Area Annual Management Report, Fishery Management Report No. 09-30; <http://www.sf.adfg.state.ak.us/FedAidPDFs/FMR09-30.pdf>
- 18) <http://dnr.alaska.gov/mlw/mining/largemine/index.htm>
- 19) <http://www.abandonedmines.gov/ep.html>

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- 21) Hughes, R.M., S.G. Paulsen, and J.L. Stoddard. 2000. EMAP-surface waters: a national, multi-assemblage, probability survey of ecological integrity. *Hydrobiologia* 423:429-443. See also www.epa.gov/bioiweb1/html/llstr13.html
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Annual Meeting, Salt Lake City, Utah, 22 April 2010
Western Division American Fisheries Society (WDAFS)
Proposed Resolution on Curtailing Illegal Stocking

WHEREAS, fisheries professionals have a public trust responsibility to conserve and protect all aquatic wildlife and their habitats for future generations; and

WHEREAS, deliberate, unauthorized and illegal release (stocking) of fish and other aquatic animals is adversely altering aquatic resources; and

WHEREAS, unauthorized stocking bypasses regulatory processes necessary to prevent the introduction of nonnative, invasive or pathogenic organisms; and

WHEREAS, illegal stocking often impedes ongoing management and restoration efforts, many times at great expense in terms of professional time and public resources; and

WHEREAS, this activity can have enormous and unmitigatable economic and ecological impacts; and

WHEREAS, illegal stocking continues in spite of ongoing education and regulatory efforts; and

WHEREAS, current approaches are not providing adequate protection for aquatic wildlife and their habitats; and

WHEREAS, the American Fisheries Society (AFS) is the leading organization of fisheries professionals; now,

THEREFORE, BE IT RESOLVED, that the WDAFS urges fisheries management agencies to immediately and aggressively expand their current efforts and adopt new regulatory, education and outreach, and management strategies to curtail illegal stocking. Such policies and strategies can include:

- a. improving natural resource agency, law enforcement and judicial professionals' understanding and appreciation of the environmental harm and societal costs illegal stocking can inflict;
- b. adopting uniformly strict regulations and severe penalties for illegal stocking;
- c. seeking creative solutions to increase funding for witness rewards, such as an international reward pool and tip hotline;
- d. considering proactive policies to deter illegal stocking such as a priori must-kill regulations and prohibitions on holding live fish;
- e. employing diverse media to repeat a balanced, well-articulated educational message about illegal stocking over many channels; and
- f. responding appropriately when illegal stocking occurs, with eradication/suppression, fishery closure, or suspension of stocking and special regulations on other species.

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