

**Arizona Game and Fish Commission
2017 Five-Year-Review Report**

**TITLE 12. NATURAL RESOURCES
CHAPTER 4. GAME AND FISH COMMISSION
ARTICLE 11. AQUATIC INVASIVE SPECIES**

**Prepared for the
Governor's Regulatory Review Council**



ARIZONA GAME AND FISH COMMISSION
12 A.A.C. 4, ARTICLE 11. AQUATIC INVASIVE SPECIES
2016 FIVE-YEAR REVIEW REPORT

TABLE OF CONTENTS

INTRODUCTION	FIVE-YEAR REVIEW REPORT: ARTICLE 11. AQUATIC INVASIVE SPECIES	PAGE
--------------	--	------

RULE NUMBER	TITLE	PAGE
R12-4-1101.	Definitions	4
R12-4-1102.	Aquatic Invasive Species; Prohibitions; Inspection, Decontamination Protocols	6

REPORT: ARTICLE 11. AQUATIC INVASIVE SPECIES

Under A.R.S. § 41-1056, every agency shall review its rules at least once every five years to determine whether any rule should be amended or repealed. Each agency shall prepare a report summarizing its findings, its supporting reasons, and any proposed course of action; and obtain approval of the report from the Governor's Regulatory Review Council (G.R.R.C.).

G.R.R.C. determines the review schedule. The Arizona Game and Fish Commission's rules listed under Article 11, Aquatic Invasive Species, are scheduled to be reviewed by January 2017.

The Arizona Game and Fish Department (Department) tasked a team of employees to review the rules contained within Article 11. The Department prepared a report of its findings based on G.R.R.C. standards. In its report, the review team addressed all internal comments from agency staff. The team took a customer-focused approach, considering each comment from a resource perspective and determining whether the request would cause undue harm to the state's wildlife or negatively affect the Department's wildlife objectives. The review team then determined whether the request was consistent with the Department's overall mission, if it could be effectively implemented given agency resources, and if it was acceptable to the public.

The Department anticipates submitting the Notice of Final Rulemaking for actions proposed in this report to the Council by December 2017 provided the Commission is granted permission to pursue rulemaking or the current moratorium is not extended.

With this report, the Department also certifies its compliance with the requirements of A.R.S. § 41-1091:

1. The Department publishes an annual directory summarizing the subject matter of all currently applicable rules and substantive policy statements;
2. The Department maintains a copy of the directory and all substantive policy statements at the Arizona Game and Fish Department Headquarters, 5000 W. Carefree Highway, Phoenix, AZ 85086;
3. The Department includes the notice specified under A.R.S. § 41-1091(B) on the first page of each substantive policy statement; and
4. The Department provides the directory, rules, substantive policy statements, and any other material incorporated by reference in the directory, rules or substantive policy statements. These documents are open to public inspection at the Department Headquarters, 5000 W. Carefree Highway, Phoenix, AZ 85086.

R12-4-1101. DEFINITIONS

- 1. General and specific statutes authorizing the rule, including any statute that authorizes the agency to make rules.**

Authorizing statute: A.R.S. 17-231(A)(1)

Implementing statute: A.R.S. §§ 5-311(A)(5), 17-255.01, 17-255.02, and 17-255.03

- 2. Objective of the rule, including the purpose for the existence of the rule.**

The objective of the rule is to establish definitions that assist the regulated community and members of the public in understanding the unique terms that are used throughout Article 11. The rule was adopted to facilitate consistent interpretation of the Commission's Article 11 rules.

- 3. Effectiveness of the rule in achieving its objective, including a summary of any available data supporting the conclusion reached.**

The rule appears to be effective in achieving the objective stated above. At the beginning of each rule review, Department employees are asked to provide comments and suggested rule changes for any areas of concern, etc. Responses indicate the rule is understandable and applicable. In addition, the Department has not received any written comments from the public in regard to this rule. The Department believes this data indicates the rule is effective.

- 4. Consistency of the rule with state and federal statutes and other rules made by the agency, and a listing of the statutes or rules used in determining the consistency.**

The rule is consistent with and is not in conflict with statutes and rules. Statutes and rules used in determining consistency include A.R.S. Title 5, Title 17, and A.A.C. Title 12, Chapter 4.

- 5. Agency enforcement policy, including whether the rule is currently being enforced and, if so, whether there are any problems with enforcement.**

Enforcement of the rule manifests itself through proper administration. Enforcement is directed to a rule or an order in which a definition is used. It is not the term that is cited, but the violation. To the extent that the Department is aware, there have been no problems with enforcement.

- 6. Clarity, conciseness, and understandability of the rule.**

The rule is clear, concise, and understandable.

- 7. Summary of the written criticisms of the rule received by the agency within the five years immediately preceding the Five-year Review Report, including letters, memoranda, reports, written analyses submitted to the agency questioning whether the rule is based on scientific or reliable principles, or methods, and written allegations made in litigation and administrative proceedings in which the agency was a party that the rule is discriminatory, unfair, unclear, inconsistent with statute, or beyond the authority of the agency to enact, and the conclusion of the litigation and administrative proceedings.**

No written criticisms were received.

- 8. A comparison of the estimated economic, small business, and consumer impact of the rule with the economic, small business, and consumer impact statement prepared on the last making of the rule or, if no economic, small business, and consumer impact statement was prepared on the last making of the rule, an assessment of the actual economic, small business, and consumer impact of the rule.**

The rule appears to have resulted in the estimated economic, small business, and consumer impacts as stated in the final rulemaking package approved by G.R.R.C. on January 10, 2012. The rule was adopted to foster consistent interpretation of Commission rules. The Commission anticipated the regulated community and the Department would benefit from a rule that defines terms referenced throughout the Commission's Article 11 rules.

- 9. Any analysis submitted to the agency by another person regarding the rule's impact on the competitiveness of businesses in this state as compared to the competitiveness of businesses in other states.**

The Department did not receive any analyses.

- 10. If applicable, how the agency completed the course of action indicated in the agency's previous five-year review report.**

Not applicable; R12-4-1101 was adopted on January 10, 2012.

- 11. A determination after analysis that the probable benefits of the rule within this state outweigh the probable costs of the rule and the rule imposes the least burden and costs to persons regulated by the rule, including paperwork and other compliance costs necessary to achieve the underlying regulatory objective.**

The public benefits from a rule that defines terms referenced throughout the Commission's Article 11 rules as they help to clarify the Commission's intent and foster consistent interpretation of Commission rules. The public and Department benefit from a rule that is understandable. The Department believes the rule imposes the least burden and costs to persons regulated by the rule.

12. A determination that the rule is not more stringent than corresponding federal law unless there is statutory authority to exceed the requirements of that federal law.

Federal law is not directly applicable to the subject of the rule. The rule is based on state law.

13. For a rule adopted after July 29, 2010, that require the issuance of a regulatory permit, license, or agency authorization, whether the rule complies with A.R.S. § 41-1037.

The rule does not require the issuance of a regulatory permit, license, or agency authorization.

14. Course of action the agency proposes to take regarding the rule, including the month and year in which the agency anticipates submitting the rule to the Council if the agency determines it is necessary to amend or repeal an existing rule or make a rule. If no issues are identified for a rule in the report, an agency may indicate that no action is necessary for the rule.

No action

**R12-4-1102. AQUATIC INVASIVE SPECIES; PROHIBITIONS; INSPECTION, DECONTAMINATION
PROTOCOLS**

1. General and specific statutes authorizing the rule, including any statute that authorizes the agency to make rules.

Authorizing statute: A.R.S. § 17-231(A)(1)

Implementing statute: A.R.S. §§ 5-311(A)(5), 17-255.01, 17-255.02, and 17-255.03

2. Objective of the rule, including the purpose for the existence of the rule.

The objective of the rule is to establish the requirements necessary to eradicate, abate, or prevent the transport and spread of aquatic invasive species in and through Arizona. The rule was adopted to enable the Department to establish prohibitions on the movement of identified aquatic invasive species, inspection requirements, and decontamination protocols.

Aquatic invasive species are a threat to Arizona's water and electrical infrastructure and the public's angling and boating recreation. It is critical for anyone who owns or uses watercraft, vehicle, conveyance or equipment on Arizona's waterbodies, to understand the essential nature of the aquatic invasive species containment effort by the Department. The spread of quagga mussels and other aquatic invasive species will result in far-reaching impacts that can touch virtually every resident of Arizona. For example, quagga mussels have a negative ecological and environmental impact to Arizona waterways and water delivery systems. These mussels accumulate on underwater surfaces and impair water delivery structures and systems. They clog water intake and delivery pipes and infest hydropower infrastructure, dams, and water control structures. They adhere to watercraft bottoms, engines, docks, and pilings and can ultimately destroy beaches and alter the functioning of native aquatic ecosystems.

The unrestricted spread of quagga mussels has far-reaching financial and ecological impacts that can affect virtually every Arizona resident. These species cost millions of dollars annually to control. Congressional researchers estimated that from 1993 to 1999, zebra mussels alone cost the power industry \$3.1 billion and industries, businesses, and communities more than \$5 billion. California spends well over \$1.5 million annually to hyperchlorinate water and remove dead mussels from water delivery systems.

The principle pathway for quagga mussel transfer between watersheds is the overland movement of boats and equipment with attached adult mussels and the movement of water itself containing juvenile mussels in undrained bilge areas, live wells, internal storage spaces, or conveyances designed to carry water. The initial movement of these mussels to the Colorado River was in all likelihood as a hitchhiker on a boat or equipment item that was moved more than 1,000 miles overland. Aquatic invasive species are currently established in a number of waterbodies: Lake Pleasant, Lake Havasu, Lake Mead, Lake Mohave, Martinez Lake, Mittry Lake, Topock Marsh, and Lake Powell; water delivery systems: parts of the Central Arizona Project aqueduct and Salt River Project Canal System; and other states and countries: Alabama, Arkansas, California, Colorado, Connecticut, Iowa, Illinois, Indiana, Kentucky, Louisiana, Massachusetts, Maryland, Michigan, Minnesota, Missouri, Mississippi, Nebraska, Nevada, New York, Ohio, Oklahoma, Pennsylvania, Texas, Utah, Virginia, Vermont, Wisconsin, West Virginia; and the Provinces of Ontario and Quebec.

3. Effectiveness of the rule in achieving its objective, including a summary of any available data supporting the conclusion reached.

Overall, the rule appears to be effective. The level of compliance is difficult to determine because some persons remove the plug or barrier and then replace it before leaving the waterbody, making it difficult for law enforcement and Department personnel to determine whether a person is in compliance with the rule before leaving a waterbody where aquatic invasive species are established or suspected. To enable an officer to determine in the field whether a person has drained their boat, the Department proposes to amend the rule to require a person to remove all plugs and devices, except those that are sealed and exist for maintenance

purposes only, and any other barriers that prevent water drainage while the watercraft, vehicle, conveyance, or equipment is in transport after leaving any affected waterbody.

4. Consistency of the rule with state and federal statutes and other rules made by the agency, and a listing of the statutes or rules used in determining the consistency.

The rule is consistent with and is not in conflict with statutes and rules. Statutes and rules used in determining consistency include A.R.S. Title 5, Title 17, and A.A.C. Title 12, Chapter 4.

5. Agency enforcement policy, including whether the rule is currently being enforced and, if so, whether there are any problems with enforcement.

Overall, the rule is being enforced, but there are issues with compliance due to the current boating culture, (similar to requiring the use of seat belts in automobiles) which will require a paradigm shift in common boating practices. Some persons do not believe they need to remove plugs and devices that prevent water from draining; others remove the plug or barrier, but then replace it before leaving the waterbody, which makes it difficult for law enforcement to determine whether a person is in compliance with the rule when they are driving away from a waterbody where aquatic invasive species are established or suspected with the plug and/or device in place. To enable an officer to immediately determine whether a person has complied with the rule, the Department proposes to amend the rule to require a person to remove all plugs and devices, except those that are sealed and exist for maintenance purposes only, and any other barriers that prevent water drainage while a watercraft, vehicle, conveyance, or equipment is in transport after leaving any affected waterbody.

6. Clarity, conciseness, and understandability of the rule.

In general, the rule is clear, concise, and understandable; however, the Department is aware of some confusion relating to what "pull the plug" means. The public is not certain when or where this action should occur in order to perform effective clean, drain, and dry protocols.

Over the past four years, in addition to media campaigns (newsletters, billboards, radio and television advertisements), the Department's Aquatic Invasive Species Program has performed numerous outreach campaigns and conducted surveys on the boat ramps at various quagga infested waterbodies (e.g., Havasu, Pleasant, and Powell). Surveys indicate a gap between knowledge of required actions and the physical action of pulling a drainage plug when exiting infested waterbodies in Arizona. Statewide, in 2013, 74% of the boaters surveyed verbally by Department personnel said they pull their boat's plug upon exit; however, only 61% were physically observed pulling the boat's drain plug upon exiting. Statewide, in 2015, 85% of boaters surveyed verbally by Department personnel said they pull their boat's plug upon exit; however only 67% were physically observed pulling the boat's drain plug upon exiting.

- 7. Summary of the written criticisms of the rule received by the agency within the five years immediately preceding the Five-year Review Report, including letters, memoranda, reports, written analyses submitted to the agency questioning whether the rule is based on scientific or reliable principles, or methods, and written allegations made in litigation and administrative proceedings in which the agency was a party that the rule is discriminatory, unfair, unclear, inconsistent with statute, or beyond the authority of the agency to enact, and the conclusion of the litigation and administrative proceedings.**

No written criticisms were received.

- 8. A comparison of the estimated economic, small business, and consumer impact of the rule with the economic, small business, and consumer impact statement prepared on the last making of the rule or, if no economic, small business, and consumer impact statement was prepared on the last making of the rule, an assessment of the actual economic, small business, and consumer impact of the rule.**

Overall, the rule appears to have resulted in the estimated economic, small business, and consumer impacts as stated in the final rulemaking package approved by G.R.R.C. on January 10, 2012. The Commission anticipated the rulemaking would benefit private consumers and public and private entities by addressing a current threat to the state's economy, ecology, and public health and safety; would have little or no financial effect on most watercraft owners and operators, but there may be increased costs to decontaminate a watercraft moored long-term in an infested waterbody (\$1,500 to \$2,000); and would result in increased costs to the Department and local law enforcement agencies due to the time needed to develop and provide training, conduct inspections, and the enforcement of decontamination protocols. However, the rule has resulted in the establishment of a number of small businesses that provide decontamination services to the public, which has had a positive impact on local economies.

- 9. Any analysis submitted to the agency by another person regarding the rule's impact on the competitiveness of businesses in this state as compared to the competitiveness of businesses in other states.**

The Department did not receive any analyses.

- 10. If applicable, how the agency completed the course of action indicated in the agency's previous five-year review report.**

Not applicable; R12-4-1102 was adopted on January 10, 2012.

- 11. A determination after analysis that the probable benefits of the rule within this state outweigh the probable costs of the rule and the rule imposes the least burden and costs to persons regulated by the**

rule, including paperwork and other compliance costs necessary to achieve the underlying regulatory objective.

The rule establishes the requirements necessary to eradicate, abate, or prevent the transport and spread of aquatic invasive species in and through Arizona. The Department anticipates the proposed amendments will have an insignificant impact on persons regulated by the rule. However, establishing conditions for the overland movement of watercraft, vehicles, conveyances, and equipment is crucial in helping to prevent the accidental spread of aquatic invasive species and the far-reaching financial and ecological impacts that can affect virtually every Arizona resident and water storage, treatment, and delivery provider. The Department believes that once the proposed amendments indicated in the report are made, the rule will impose the least burden and costs to persons regulated by the rule.

12. A determination that the rule is not more stringent than corresponding federal law unless there is statutory authority to exceed the requirements of that federal law.

Federal law is not directly applicable to the subject of the rule. The rule is based on state law.

13. For a rule adopted after July 29, 2010, that require the issuance of a regulatory permit, license, or agency authorization, whether the rule complies with A.R.S. § 41-1037.

The rule does not require the issuance of a regulatory permit, license, or agency authorization.

14. Course of action the agency proposes to take regarding the rule, including the month and year in which the agency anticipates submitting the rule to the Council if the agency determines it is necessary to amend or repeal an existing rule or make a rule. If no issues are identified for a rule in the report, an agency may indicate that no action is necessary for the rule.

The Department proposes to amend R12-4-1102 to require a person to remove all plugs and devices, except those that are sealed and exist for maintenance purposes only, and any other barriers that prevent water drainage while the watercraft, vehicle, conveyance, or equipment is in transport after leaving any affected waterbody.

Subject to the evaluation of the economic, small business, and consumer impact of any of the proposed amendments, the Department anticipates submitting the Notice of Final Rulemaking to the Council by December 2017.