AGENDA

Board of Game and Inland Fisheries
7870 Villa Park Drive
Henrico, Virginia 23228

August 18, 2016
9:00 am

Call to Order and Welcome, reading of the Mission Statement and Pledge of Allegiance to the Flag.

1. Recognition of Employees and Others

2. Approval of the June 16, 2016 Board Meeting Minutes ***Action***

3. Public Comments – Non Agenda Items

4. Go Outdoors VA Update

5. Committee Meeting Reports:

Wildlife, Boat, and Law Enforcement:

- Staff Recommendations – Aquatic Regulations ***Final Action***
- Staff recommendation s– Endangered & Threatened Species Regulations ***Final Action***
- Staff Recommendations-Waterfowl Blind Regulations ***Final Action***
- Trout Management Plan ***Final Action***
- 2017-2018 Terrestrial Wildlife Regulation Cycle ***Final Action***

Finance, Audit, and Compliance:

- Southwick License Study update

Education, Planning, & Outreach:

6. Closed Session

7. Director's Report

8. Chairman's Report

9. Additional Business/Comments

10. Next Meeting Date: Thursday, October 20, 2016 (Pending Board Approval)

11. Adjournment

Draft Board Meeting Minutes
Board of Game and Inland Fisheries
7870 Villa Park Drive
Henrico, Virginia 23228

June 16, 2016
9:00 am

Present: Mr. Chuck Cunningham**, Chairman**, Mr. Bill Bolling, **Vice Chairman**, Mr. Leon Boyd, Mr. Leon Turner, Dr. Mark Winkler, Ms. Catherine Claiborne, Mr. Clayton Spruill, Mr. H. S. Caudill, Mr. Watkins Abbitt, Mr. David Bernhardt, Ms. Nicole Butterworth**; Executive Director**: Mr. Robert W. "Bob" Duncan; **Senior Leadership Team**: Mr. Lee Walker, Mr. Gary Martel, Mr. Darin Moore, Mr. Tom Guess, Acting Law Chief Clark Greene, Mr. Ryan Brown.

The Chairman opened the meeting at 9:00 am and welcomed everyone and noted for the record that a quorum was present for the meeting. Ms. Claiborne read the mission statement and Sgt. Mike Hill led the Pledge of Allegiance. The Chairman announced there would be a Closed Session during the Board meeting.

Recognition of Employees and Others: The Chairman called on the Director for recognitions. The Director called on Mr. Lee Walker for comments and a video regarding the 100th Anniversary of the Agency.

Mr. Walker read a Governor's Certificate of Recognition signed by Governor McAuliffe commending the agency on their 100th anniversary.

The Director called on Mr. Lee Walker who introduced Mr. Dennis Martin who presented the Agency with a 1916 hunting license.

The Director called on Mr. Lee Walker who introduced Major Joe A. Tull, Fort Lee Provost Marshal and Mrs. Susan Loden, Army Volunteer Coordinator and Agent Michael Johnson who presented Certificates to DGIF staff who has volunteered at Ft. Lee.

The Director called on Acting Chief of Law Enforcement Clark Greene who called on Captain Kevin Clark who introduced the CPO of the Year, CPO Mark Diluigi and his family.

The Director called on Tom Guess who called on Acting Chief of Law Enforcement Clark Greene and Captain Milt Robinson and presented the NASBLA Boating Officer of the Year Award to CPO Mark Shaw.

The Director recognized Mr. Glen Askins for receiving the Governor's 2016 Public Service Award for Customer Service.

The Director called on Mr. Cale Godfrey, Deputy Assistant Director of the Bureau of Wildlife Resources who recognized two new employees in the Bureau, Mr. Shannon Bowling, Terrestrial Wildlife Manager and Dr. David Kalb, Terrestrial Biologist.

Approval of the March 24, 2016 Board Meeting Minutes:

The Minutes of the March 24, 2016 minutes have been distributed and posted to the website for review. The Chairman called for a motion to approve the minutes. Mr. Boyd made a motion to approve the March 24, 2016 Board meeting minutes as submitted. It was seconded by Mr. Turner.
Ayes: Cunningham, Bolling, Boyd, Turner, Winkler, Claiborne, Spruill, Caudill, Abbitt, Bernhardt, Butterworth.

Public Comments (Non-Agenda Items): The Chairman called for Public Comments for Non-Agenda items.

- Ms. Mary Roy Dawson Edwards of Schuyler, VA spoke regarding Fulfillment Farms
- Ms. Alexandra K. Forrer of Charlottesville, VA spoke regarding Fulfillment Farms
- Mr. Charles Edwards of Schuyler, VA spoke regarding Fulfillment Farms
- Mr. Richard Collins of Charlottesville, VA spoke regarding Fulfillment Farms
- Mr. Tommy Lawhorne of Waynesboro, VA spoke regarding South River Regulations Change – Trout

The Chairman called for a 10 minute break.

After the break, the Chairman continued the meeting.

Strategic Thinking: Mr. Darin Moore and Mr. Chris Dunnavant gave an update on the agency's Strategic Thinking Plan to the Board.

After discussions and questions, the Chairman thanked Mr. Moore and Mr. Dunnavant for their update.

Committee Reports:

Wildlife, Boat, and Law Enforcement Committee:

The Chairman called on Director Bob Duncan for comments concerning the naming of a new Wildlife Management Area. Mr. Duncan called on Mr. David Norris for presentation on the purchase of the York/Ware Creek property.

Mr. Abbitt made a motion, Mr. Chairman, I move that the Board name the New Wildlife Management Area, Ware Creek Wildlife Management Area. It was seconded by Mr. Turner. Ayes: Cunningham, Bolling, Boyd, Turner, Winkler, Claiborne, Spruill, Caudill, Abbitt, Bernhardt , Butterworth

The Chairman called on Mr. Leon Boyd, Chairman of Wildlife, Boat, and Law Committee for the activities of the Wildlife, Boat, and Law Enforcement Committee meeting on June 15, 2016. Mr. Boyd called on Mr. Cale Godfrey.

Mr. Godfrey called on Dr. Gary Costanzo to present the staff recommendation for Waterfowl and Waterfowl Blind Regulation for York River.

After discussion and questions, the Chairman called for a motion.

Mr. Bolling made a motion, Mr. Chairman, I move that the Board propose the regulation on waterfowl and waterfowl blinds as presented by staff. Mr. Abbitt seconded the motion. Ayes: Cunningham, Bolling, Boyd, Turner, Winkler, Claiborne, Spruill, Caudill, Abbitt, Bernhardt, Butterworth

Mr. Godfrey called on Mr. Ryan Brown to present the Other Regulatory Proposals regarding the paint regulation for the color to use for posting of land and the repeal regulatory requirement for physical signatures.

After discussion and questions, the Chairman called for a motion.

Mr. Abbitt made a motion, Mr. Chairman, I move that the Board adopt the license signature as presented by staff. It was seconded by Mr. Bolling. Ayes: Cunningham, Bolling, Boyd, Turner, Winkler, Claiborne, Spruill, Caudill, Abbitt, Bernhardt, Butterworth

Mr. Abbitt made a motion, Mr. Chairman, I move that the Board adopt the additional paint color of purple to be used for posting land as presented by staff. It was seconded by Mr. Bolling. Ayes: Cunningham, Bolling, Boyd, Turner, Winkler, Claiborne, Spruill, Caudill, Abbitt, Bernhardt, Butterworth.

Mr. Godfrey called on Ms. Becky Gwynn to give staff recommendations on Endangered and Threatened Species Regulation.

After discussion and questions, the Chairman called for a motion.

Ms. Claiborne made a motion, Mr. Chairman, I hereby move that the Board propose the regulation amendments for endangered species as presented by staff. Mr. Abbitt seconded the motion. Ayes: Cunningham, Bolling, Boyd, Turner, Winkler, Claiborne, Spruill, Caudill, Abbitt, Bernhardt, Butterworth

Finance, Audit, & Compliance Committee:

The Chairman called on Mr. Bernhardt, Chairman of the Finance, Audit, & Compliance Committee to report on the June 15, 2016 Finance Committee meeting.

Mr. Bernhardt called on Mr. Darin Moore who presented the Operating and Capital Budget for FY2017.

After discussions and questions, the Chairman called for a motion.

Mr. Bernhardt made a motion, Mr. Chairman, I hereby move to approve the Department of Game and Inland Fisheries Fiscal Year 2017 Operating and Capital Budgets (FY17 Operating Budget: $62,809,733 and FY17 Capital Budget: $10,593,51 with $6,957,234 in HHD Bond Projects.) Mr. Bolling seconded the motion. Ayes: Cunningham, Bolling, Boyd, Turner, Winkler, Claiborne, Spruill, Abbitt, Bernhardt, Caudill, Butterworth.

Education, Planning, and Outreach Committee:

The Chairman called on Dr. Mark Winkler, Chairman of the Education, Planning, and Outreach Committee. Dr. Winkler reported that the Education, Planning, and Outreach Committee had not met since the last Board meeting.

Closed Session: The Chairman called for a motion to move into a Closed Meeting.

The Board went into Closed Session at: 12:15 pm

Mr. Bolling made the motion.

Closed Meeting Motion
June 16, 2016

Mr. Chairman,

I move that the Board go into a closed meeting pursuant to Section 2.2-3711.A.3 of the Code of Virginia for discussion or consideration of the acquisition of real property for a public purpose, or of the disposition of publicly held real property, where discussion in an open meeting would adversely affect the bargaining position or negotiating strategy of the Board, with respect to:

(i) Real property location in Smyth and Washington Counties.

Further, pursuant to Section 2.2-3711.A.7 of the code of Virginia for consultation with legal counsel employed or retained by a public body regarding specific legal matters requiring the provision of legal Advice by such counsel.

And finally, pursuant to section 2.2-3711.A.1 of the Code of Virginia for discussion or consideration of employment , assignment, appointment, promotion, performance, demotion, salaries, disciplining, or resignation of specific public officers, appointees, or employees of the Department of Game and Inland Fisheries specifically regarding:

(i) The Performance of the Director.

This closed meeting will be attended only by members of the Board. However, pursuant to Section 2.2-3712(F), the Board request counsel, the Department Director, the Legislative and Policy Manager, the Assistant Bureau Director, the Special Assistant to the Director, and the Real Property Manager to also attend this meeting, at it believes their presence will reasonable aid the Board in its consideration of topics that are the subject of the meeting.

It was seconded by Dr. Winkler. Ayes: Cunningham, Bolling, Boyd, Turner, Winkler, Claiborne, Caudill, Spruill, Abbitt, Bernhardt, Butterworth

The Board reconvened at 2:08 pm.

Mr. Caudill moved the following Certification.

Certification of Closed Meeting
June 16, 2016

WHEREAS, the Board of Game and Inland Fisheries conducted a closed meeting on this date pursuant to an affirmative recorded vote and in accordance with the provision of the Virginia Freedom of Information Act; and

WHEREAS, Section 2.2-3712.D of the Code requires a certification by this Board that such closed meeting was conducted in conformity with Virginia law;

NOW, THEREFORE, BE IT RESOLVED that the Board of Game and Inland Fisheries hereby certifies that, to the best of each member's knowledge, only public business matters lawfully exempted from open meeting requirements by Virginia law were discussed in the closed meeting to which this certification resolution applies, and only such public business matters as were identified in the motion convening the closed meeting were heard, discussed or consideration by the Board.

It was seconded by Dr. Winkler.

The Board secretary conducted the follow voice roll call vote:

Mr. Caudill – Aye
Mr. Boyd – Aye
Dr. Winkler – Aye
Mr. Turner – Aye
Mr. Bernhardt – Aye
Mr. Bolling – Aye
Ms. Claiborne - Aye
Mr. Cunningham - Aye
Mr. Spruill - Aye
Ms. Butterworth-Aye
Mr. Abbitt - Aye

Director's Report: The Director reported on the following items:

- The Director called on Dr. David Kalb to give an Elk presentation
- The Director called on Sgt. Jaime Davis to report on the illegal taking of elk
- The Director called on Mr. Kim Delozier, Lands Program Manager with the Rocky Mountain Elk Foundation to present an award to Mr. Leon Boyd
- Legislative update - Mr. Ryan Brown

Chairman's Report: The Chairman reported on the following items:

Mr. Cunningham presented Dr. Mark Winkler, Mr. David Bernhardt, and Mr. Leon Turner with their outgoing Board member plaques and commended their work on the Committee and Board.

Amended Motion:

Mr. Abbitt recommended an Amended Motion to a previous motion concerning the regulation on waterfowl and waterfowl blinds.

Mr. Chairman, I move the Amended Motion, I move that the Board propose the regulation on Waterfowl and Waterfowl Blinds as amended by staff. Mr. Bolling seconded the motion, Ayes: Cunningham, Bolling, Boyd, Turner, Winkler, Claiborne, Spruill, Caudill, Abbitt, Bernhardt, Butterworth

Nominations Committee: Dr. Winkler, Chairman of the Nominations Committee, along with Mr. Turner and Mr. Abbitt reported the Nominations Committee would nominate the new 2017 Board Chairman to be Mr. Bill Bolling and the new 2017 Vice Chairwoman to be Mrs. Catherine Claiborne. The Chairman, Mr. Cunningham called for a motion.

Dr. Winkler made a motion to accept the report of the Nominations Committee to nominate Mr. Bill Bolling as Chairman and Ms. Catherine Claiborne as Vice Chairman. Dr. Bernhardt seconded the motion. Ayes: Cunningham, Bolling, Boyd, Turner, Winkler, Claiborne, Spruill, Caudill, Abbitt, Bernhardt, Butterworth

Mr. Bill Bolling presented Mr. Cunningham with his outgoing Chairman Plaque and his 100th Anniversary knife.

Adjournment: Mr. Cunningham announced the next meeting will be held on Thursday, August 18, 2016 at 9:00 am and adjourned the meeting at 2:45 pm.

Respectfully submitted,

/s/Frances Boswell

DEPARTMENT OF GAME AND INLAND FISHERIES

BOARD MEETING AGENDA ITEMS

BOARD MEETING DATE: August 18, 2016

DIVISION: Bureau of Wildlife Resources **PRESENTER:** Bob Duncan

DATE SUBMITTED: August 9, 2016 **SUBMITTED BY:** David Whitehurst

SUBJECT: Proposed changes to aquatic wildlife regulations.

BACKGROUND: Staff recommendations for changes to regulations related to aquatic wildlife, including creel and length limits, are presented every two years for consideration by the Board of Game and Inland Fisheries. Biologists from the Bureau of Wildlife Resources have analyzed field data and considered input received during the past several years. At its June 2016 meeting, the Board of Game and Inland Fisheries heard staff recommendations for regulatory amendments and proposed regulatory changes for advertisement.

The proposed regulation amendments were advertised for public comment on the Department's Web site for 120 days (April 9-August 6, 2016), the Virginia Register and in newspapers statewide; 118 comments were received.

A complete package of proposed changes, with summaries and rationales, is included in this packet.

Staff final recommendations will be summarized in a presentation to the WBL Committee.

RECOMMENDATION: Staff recommends that the Board adopt the regulation amendments as presented, with an effective date of January 1, 2017.

Virginia Department of Game and Inland Fisheries

AQUATIC REGULATION PROPOSALS AND FINAL STAFF RECOMMENDATIONS

2016

AQUATIC REGULATION PROPOSALS

AUGUST 2016

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Definitions and Miscellaneous: Importation, Possession, Sale, Etc., of Animals

4VAC15-30. DEFINITIONS AND MISCELLANEOUS: IMPORTATION, POSSESSION, SALE, ETC., OF ANIMALS

4VAC15-30-40. Importation Requirements, Possession and Sale of Nonnative (Exotic) Animals.

SUMMARY:
The proposal is to allow anglers to legally harvest grass carp from public waters of the Commonwealth, except from department-owned or department-controlled lakes, provided that anglers ensure that harvested grass carp are dead.

PROPOSED LANGUAGE OF AMENDMENT:

4VAC15-30-40. Importation Requirements, Possession and Sale of Nonnative (Exotic) Animals.

A. Permit required. A special permit is required and may be issued by the department, if consistent with the department's fish and wildlife management program, to import, possess, or sell those nonnative (exotic) animals listed below and in 4VAC15-20-210 that the board finds and declares to be predatory or undesirable within the meaning and intent of § 29.1-542 of the Code of Virginia, in that their introduction into the Commonwealth will be detrimental to the native fish and wildlife resources of Virginia.

B.

FISH			
Order	Family	Genus/Species	Common Name
Cypriniformes	Catostomidae	Catostomus microps	Modoc sucker
		Catostomus santaanae	Santa Ana sucker
		Catostomus warnerensis	Warner sucker
		Ictiobus bubalus	Smallmouth* buffalo
		I. cyprinellus	Bigmouth* buffalo
		I. niger	Black buffalo*
	Characidae	Pygopristis spp. Pygocentrus spp. Rooseveltiella spp. Serrasalmo spp. Serrasalmus spp. Taddyella spp.	Piranhas
	Cobitidae	Misgurnus anguillicaudatus	Oriental weatherfish
	Cyprinidae	Aristichyhys nobilis	Bighead carp*
		Chrosomus saylori	Laurel dace
		Ctenopharyngodon idella	Grass carp or white amur
		Cyprinella caerulea	Blue shiner
		Cyprinella formosa	Beautiful shiner
		Cyprinella lutrensis	Red shiner

		Hypophthalmichthys molitrix	Silver carp*
		Mylopharyngodom piceus	Black carp*
		Notropis albizonatus	Palezone shiner
		Notropis cahabae	Cahaba shiner
		Notropis girardi	Arkansas River shiner
		Notropis mekistocholas	Cape Fear shiner
		Notropis simus pecosensis	Pecos bluntnose shiner
		Notropis topeka (= tristis)	Topeka shiner
		Phoxinus cumberlandensis	Blackside dace
		Rhinichthys osculus lethoporus	Independence Valley speckled dace
		Rhinichthys osculus nevadensis	Ash Meadows speckled dace
		Rhinichthys osculus oligoporus	Clover Valley speckled dace
		Rhinichthys osculus ssp.	Foskett speckled dace
		Rhinichthys osculus thermalis	Kendall Warm Springs dace
		Scardinius erythrophthalmus	Rudd
		Tinca tinca	Tench

B. Temporary possession permit for certain animals. Notwithstanding the permitting requirements of subsection A of this section, a person, company or corporation possessing any nonnative (exotic) animal, designated with an asterisk (*) in subsection A of this section, prior to July 1, 1992, must declare such possession in writing to the department by January 1, 1993. This written declaration shall serve as a permit for possession only, is not transferable, and must be renewed every five years. This written declaration must include species name, common name, number of individuals, date or dates acquired, sex (if possible), estimated age, height or length, and other characteristics such as bands and band numbers, tattoos, registration numbers, coloration, and specific markings. Possession transfer will require a new permit according to the requirements of this subsection.

C. Exception for certain monk parakeets. A permit is not required for monk parakeets (quakers) that have been captive bred and are closed-banded with a seamless band.

D. Exception for parts or products. A permit is not required for parts or products of those nonnative (exotic) animals listed in subsection A of this section that may be used for personal use, in the manufacture of products, or used in scientific research, provided that such parts or products be packaged outside the Commonwealth by any person, company, or corporation duly licensed by the state in which the parts originate. Such packages may be transported into the Commonwealth, consistent with other state laws and regulations, so long as the original package

remains unbroken, unopened and intact until its point of destination is reached. Documentation concerning the type and cost of the animal parts ordered, the purpose and date of the order, point and date of shipping, and date of receiving shall be kept by the person, business or institution ordering such nonnative (exotic) animal parts. Such documentation shall be open to inspection by a representative of the Department of Game and Inland Fisheries.

E. Exception for prairie dogs. The effective date of listing of prairie dogs under subsection A of this section shall be January 1, 1998. Prairie dogs possessed in captivity in Virginia on December 31, 1997, may be maintained in captivity until the animals' deaths, but they may not be sold on or after January 1, 1998, without a permit.

F. Exception for snakehead fish. Anglers may legally harvest snakehead fish of the family Channidae, provided that they immediately kill such fish and that they notify the department, as soon as practicable, of such actions.

G. Exception for feral hogs. Anyone may legally trap feral hogs with written permission of the landowner, provided that any trapped hogs are not removed from the trap site alive and are killed immediately.

H. Exception for grass carp. Anglers may legally harvest grass carp of the family Cyprinidae from public waters of the Commonwealth, except from department-owned or department-controlled lakes, provided that anglers ensure that harvested grass carp are dead.

~~H~~I. All other nonnative (exotic) animals. All other nonnative (exotic) animals not listed in subsection A of this section may be possessed, purchased, and sold; provided, that such animals shall be subject to all applicable local, state, and federal laws and regulations, including those that apply to threatened/endangered species, and further provided, that such animals shall not be liberated within the Commonwealth.

STAFF FINAL RECOMMENDATION:

Staff recommends adoption of the amendments as proposed, with an effective date of January 1, 2017.

RATIONALE:

Grass carp are actively stocked by the VDGIF in department-owned or department-controlled lakes to control aquatic vegetation. However, in some systems, grass carp may move out of an impounded section and into the free-flowing section of a river where they may have a negative impact on desired aquatic vegetation. Currently anglers (including bow anglers) are not permitted to harvest grass carp from any waters of the Commonwealth or to have grass carp in possession without a permit. Allowing anglers to harvest grass carp from waters where grass carp are not actively stocked or desired by the VDGIF will help to control this species in waters where the animals may have a negative impact on desired aquatic vegetation.

This proposed change also results in proposed language changes to 4VAC15-350-70 (see page 48) and 4VAC15-360-10 (see page 51).

Fish: Fishing Generally

4VAC15-320. FISH: FISHING GENERALLY

4VAC15-320-25. Creel and Length Limits.

SUMMARY:

The proposals are to (i) correctly identify the railroad bridge over Big Walker Creek associated with the New River smallmouth bass protected slot limit; (ii) create a seasonal 40-inch to 48-inch protected slot limit on muskellunge on the New River from Claytor Dam downstream to the Virginia/West Virginia state line; (iii) reduce the geographic coverage associated with the limitation on harvesting large animals in the daily creel limit for blue catfish to the James River below the fall line and its tidal tributaries, the York River and its tributaries including the Mattaponi River and Pamunkey River, and Kerr Reservoir; (iv) implement a five-fish per day creel limit on longnose gar and bowfin for anglers using hook and line or bowfishing tackle; and (v) implement a statewide recreational minimum size limit and increase the daily creel limit for American eels, while providing an exception to the daily creel limit to those individuals holding permits for the harvest of eels for sale from Back Bay and/or North Landing River in the City of Virginia Beach.

PROPOSED LANGUAGE OF AMENDMENT:

4VAC15-320-25. Creel and Length Limits.

The creel limits (including live possession) and the length limits for the various species of fish shall be as follows, unless otherwise excepted by posted rules at department-owned or department-controlled waters (see 4VAC15-320-100 D).

Type of fish	Subtype or location	Creel and length limits	Geographic exceptions	Creel or length limits for exceptions
largemouth bass, smallmouth bass, spotted bass		5 per day in the aggregate (combined); No statewide length limits	Lakes	
			Briery Creek Lake	No bass 16 to 24 inches, only 1 per day longer than 24 inches
			Buggs Island (Kerr)	Only 2 of 5 bass less than 14 inches
			Claytor Lake	No bass less than 12 inches

			Flannagan Reservoir	No bass less than 12 inches
			Lake Gaston	Only 2 of 5 bass less than 14 inches
			Leesville Reservoir	Only 2 of 5 bass less than 14 inches
			Lake Moomaw	No bass less than 12 inches
			Philpott Reservoir	No bass less than 12 inches
			Quantico Marine Base waters	No bass 12 to 15 inches
			Smith Mt. Lake and its tributaries below Niagara Dam	Only 2 of 5 bass less than 14 inches
			Rivers	
			Clinch River – within the boundaries of Scott, Wise, Russell, or Tazewell counties	No bass less than 20 inches, only 1 bass per day longer than 20 inches
			Dan River and tributaries downstream from the Union Street Dam, Danville	Only 2 of 5 bass less than 14 inches

			James River – Confluence of the Jackson and Cowpasture rivers (Botetourt County) downstream to the 14th Street Bridge in Richmond	No bass 14 to 22 inches, only 1 per day longer than 22 inches

			New River – Fields Dam (Grayson County) downstream to the VA - WV state line and its tributaries Little River downstream from Little River Dam in Montgomery County, Big Walker Creek from the ~~Norfolk and Western~~ Norfolk Southern Railroad Bridge downstream to the New River, and Wolf Creek from the Narrows dam downstream to the New River in Giles County (This does not include Claytor Lake, which is delineated as: The upper end of the island at Allisonia downstream to the dam)	No bass 14 to 22 inches, only 1 per day longer than 22 inches
			North Fork Holston River - Rt. 91 bridge upstream of Saltville, VA downstream to the VA - TN state line	No bass less than 20 inches, only 1 per day longer than 20 inches

			North Fork Shenandoah River – Rt. 42 bridge, Rockingham Co. downstream to the confluence with S. Fork Shenandoah at Front Royal	No bass 11 to 14 inches
			Potomac River - Virginia tidal tributaries above Rt. 301 bridge	No bass less than 15 inches from March 1 through June 15
			Roanoke (Staunton) River - and its tributaries below Difficult Creek, Charlotte Co.	Only 2 of 5 bass less than 14 inches
			Shenandoah River –	
			Confluence of South Fork and North Fork rivers, Front Royal, downstream, to the Warren Dam, near Front Royal	No bass 11 to 14 inches
			Base of Warren Dam, near Front Royal downstream to Rt. 17/50 bridge	No bass 14 to 20 inches, only 1 per day longer than 20 inches

			Rt. 17/50 bridge downstream to VA - WV state line	No bass 11 to 14 inches
			South Fork Shenandoah River -	
			Confluence of North and South rivers, below Port Republic, downstream to Shenandoah Dam, near Town of Shenandoah	No bass 11 to 14 inches
			Base of Shenandoah Dam, near Town of Shenandoah, downstream to Luray Dam, near Luray	No bass 14 to 20 inches, only 1 per day longer than 20 inches
			Base of Luray Dam, near Luray, downstream to the confluence with North Fork of Shenandoah, Front Royal	No bass 11 to 14 inches
			Staunton River -	

			Leesville Dam (Campbell County) downstream to the mouth of Difficult Creek, Charlotte County	No smallmouth bass less than 20 inches, only 1 per day longer than 20 inches
striped bass	landlocked striped bass and landlocked striped bass x white bass hybrids	4 per day in the aggregate; No fish less than 20 inches	Buggs Island (Kerr) reservoir including the Staunton River to Leesville Dam and the Dan River to Union Street Dam (Danville)	October 1 - May 31: 2 per day in the aggregate; No striped bass or hybrid striped bass less than 24 inches; June 1 - September 30: 4 per day in the aggregate; No length limit
			Smith Mountain Lake and its tributaries, including the Roanoke River upstream to Niagara Dam	2 per day in the aggregate; November 1 - May 31: No striped bass 30 to 40 inches; June 1 - October 31: No length limit

			Lake Gaston	4 per day in the aggregate October 1 - May 31: No striped bass or hybrid striped bass less than 20 inches June 1 - September 30: No length limit
	anadromous (coastal) striped bass above the fall line in all coastal rivers of the Chesapeake Bay	Creel and length limits shall be set by the Virginia Marine Resources Commission for recreational fishing in tidal waters		
	anadromous (coastal) in the Meherrin, Nottoway, Blackwater (Chowan Drainage), North Landing and Northwest Rivers and their tributaries plus Back Bay	2 per day; No striped bass less than 18 inches		

white bass		5 per day; No statewide length limits		
walleye		5 per day in the aggregate; No walleye or saugeye less than 18 inches	New River upstream of Buck Dam in Carroll County	No walleye less than 20 inches
			Claytor Lake and the New River upstream of Claytor Lake Dam to Buck Dam in Carroll County	February 1 - May 31: 2 walleye per day; no walleye 19 to 28 inches; June 1 - January 31: 5 walleye per day; no walleye less than 20 inches
sauger		2 per day; No statewide length limits		
yellow perch		No statewide daily limit; No statewide length limits	Lake Moomaw	10 per day
chain pickerel		5 per day; No statewide length limits	Gaston and Buggs Island (Kerr) reservoirs	No daily limit

northern pike		2 per day; No pike less than 20 inches		
muskellunge		2 per day; No muskellunge less than 30 inches	New River - Fields Dam (Grayson County) downstream to ~~the VA - WV state line, including Claytor Lake~~ Claytor Dam, including Claytor Lake New River – Claytor Dam downstream to VA – WV state line	1 per day No muskellunge less than 42 inches 1 per day June 1 – last day of February: No muskellunge 40 to 48 inches March 1 – May 31: No muskellunge less than 48 inches.

bluegill (bream) and other sunfish excluding crappie, rock bass (redeye) and Roanoke bass		50 per day in the aggregate; No statewide length limits	Gaston and Buggs Island (Kerr) reservoirs and that portion of the New River from the VA - NC state line downstream to the confluence of the New and Little Rivers in Grayson County	No daily limit
crappie (black or white)		25 per day in the aggregate; No statewide length limits	Gaston and Buggs Island (Kerr) reservoirs and that portion of the New River from the VA - NC state line downstream to the confluence of the New and Little Rivers in Grayson County	No daily limit
			Flannagan and South Holston reservoirs	No crappie less than 10 inches

rock bass (redeye)		25 per day; No statewide length limits	Gaston and Buggs Island (Kerr) reservoirs and that portion of the New River from the VA - NC state line downstream to the confluence of the New and Little Rivers in Grayson County.	No daily limit
			Nottoway and Meherrin rivers and their tributaries	5 per day in the aggregate with Roanoke bass; No rock bass less than 8 inches
Roanoke bass		No statewide daily limit; No statewide length limits	Nottoway and Meherrin rivers and their tributaries	5 per day in the aggregate with rock bass; No Roanoke bass less than 8 inches
trout	See 4VAC15-330. Fish: Trout Fishing.			
catfish	channel, white, and flathead catfish	20 per day; No length limits	All rivers below the fall line	No daily limit
	blue catfish	20 per day~~, only 1 blue catfish per day longer than 32 inches~~ No statewide length limits	Kerr Reservoir	20 per day, except only 1 blue catfish per day longer than 32 inches

			James River and its tributaries below the fall line and York River and its tributaries (including the Pamunkey River and Mattaponi River) below the fall line	No daily limit, except only 1 blue catfish per day longer than 32 inches
			All rivers below the fall line other than the James River and its tributaries and the York River and its tributaries	No daily limit ~~except only 1 blue catfish per day longer than 32 inches~~
	yellow, brown, and black bullheads	No daily limit; No length limits		

American shad and hickory shad	James River above the fall line (14th Street Bridge), the Meherrin River above Emporia Dam, the Chickahominy River above Walkers Dam, the Appomattox River above Harvell Dam, the Pamunkey River and the Mattaponi River above the Rt. 360 bridge, and the Rappahannock River above the Rt. 1 bridge, and Virginia waters of Lake Gaston and Buggs Island (Kerr) Reservoir and tributaries to include the Dan and Staunton rivers	No possession (catch and release only)		

	Above and below the fall line in all coastal rivers of the Chesapeake Bay	Creel and length limits shall be the same as those set by the Virginia Marine Resources Commission for these species in tidal rivers		
	Meherrin River below Emporia Dam Nottoway River, Blackwater River (Chowan Drainage), North Landing and Northwest rivers, and their tributaries plus Back Bay	10 per day in the aggregate No length limits		
anadromous (coastal) alewife and blueback herring	Above and below the fall line in all coastal rivers of the Chesapeake Bay	Creel and length limits shall be the same as those set by the Virginia Marine Resources Commission for these species in tidal rivers		

	Meherrin River, Nottoway River, Blackwater River (Chowan Drainage), North Landing and Northwest rivers, and their tributaries plus Back Bay	No possession		
red drum	Back Bay and tributaries including Lake Tecumseh and the North Landing River and its tributaries	1 per day; No drum less than 18 inches or greater than 27 inches		
spotted sea trout (speckled trout)	Back Bay and tributaries including Lake Tecumseh and the North Landing River and its tributaries	4 per day; No sea trout less than 14 inches		

grey trout (weakfish)	Back Bay and tributaries including Lake Tecumseh and North Landing River and its tributaries	1 per day; No grey trout less than 12 inches		
southern flounder	Back Bay and tributaries including Lake Tecumseh and the North Landing River and its tributaries	6 per day; No flounder less than 15 inches		
northern snakehead		Anglers may possess snakeheads taken from Virginia waters if they immediately kill the fish and notify the headquarters or a regional office of the department; notification may be made by telephoning (804) 367-2925 No statewide daily limit No statewide length limits		

longnose gar		5 per day No statewide length limits		
bowfin		5 per day No statewide length limits		
American eel		25 per day; no eel less than 9 inches	Back Bay and North Landing River	No possession limit for those individuals possessing a permit obtained under 4VAC15-340-80
other native or naturalized nongame fish	See 4VAC15-360-10. Fish: Aquatic Invertebrates, Amphibians, Reptiles, and Nongame Fish. Taking aquatic invertebrates, amphibians, reptiles and nongame fish for private use.			
endangered or threatened fish	See 4VAC15-20-130. Definitions and Miscellaneous: In General. Endangered and threatened species; adoption of federal list; additional species enumerated.			
nonnative (exotic) fish	See 4VAC15-30-40. Definitions and Miscellaneous: Importation, Possession, Sale, Etc., of Animals. Importation requirements, possession and sale of nonnative (exotic) animals.			

STAFF FINAL RECOMMENDATION:

Staff recommends adoption of the amendments as proposed, with an effective date of January 1, 2017.

RATIONALE:

New River Smallmouth Bass Protected Slot Limit Designation: When amendments to this regulation were adopted during the last cycle, the railroad bridge over Big Walker Creek was incorrectly identified as the Norfolk and Western Railroad Bridge. Staff has verified that this railroad bridge is owned by Norfolk Southern, so the wording should be updated to reflect the correct bridge description to ensure clarity in the regulation for enforcement and public information purposes.

Seasonal Protected Slot Limit – Muskellunge, New River: The electrofishing catch rate of 35-inch to 42-inch muskie has increased from 0.6/hour during the 2008 to 2011 period to 2.8/hour in the 2012 to 2015 period. This apparent stockpiling, just below the minimum size limit of 42 inches, has also resulted in lower relative weights of all sizes of muskie over the last ten years. Both muskie and smallmouth bass anglers complain of too many small muskie in the river, and muskie anglers are concerned about the decrease in large muskie over 45 inches. Records from DGIF's Angler Recognition Program during the 2006 to 2011 time period indicated that anglers harvested approximately 29% of registered citation muskie in the 42-inch to 45-inch range, and 51% of muskie over 45 inches in length. The muskie population has increased in abundance over the last ten years and is now a self-sustaining fishery with no stockings having been conducted since 2011.

The proposed language change will allow harvest of muskie below 40 inches during nine months of the year, with the goal of reducing the abundance of these smaller fish. There will be less competition for both food and habitat, which should result in improved relative weights of all muskie, both below and in the slot. The protected slot limit should increase the abundance of muskie over 42 inches, thereby creating a "trophy" fishery. The 48-inch minimum size limit during the three month period from March 1 through May 31 will help protect the muskie fishery during the spawning period so that the fishery can remain self-sustaining. Staffs think that smallmouth bass anglers will support the change in that it will reduce the number smaller muskie competitors in the river and that muskie anglers should embrace the change as a path to increased numbers of larger muskie.

Longnose Gar and Bowfin Daily Creel Limits: Both longnose gar and bowfin are long-lived, slow-maturing species with low recruitment rates. They are also a popular target of bowfishermen, who rely on targeting fish that are near the surface. Gar and bowfin are possibly more vulnerable to bow fishing because they gulp air from the surface in waters lacking sufficient oxygen; they are often found resting or waiting motionless near the surface waiting for prey; and they feed at night during the same time bow fishers are most active. Hook-and-line anglers may also attempt to remove large numbers of gar and bowfin because of a perception that these species negatively impact gamefish populations. However, there is no evidence to support this claim. In fact, both species are integral components of their aquatic environments. Most unlimited possession species are introduced (e.g., common carp) or occur in large numbers with short life spans and high recruitment rates (e.g., golden shiner and alewife). Neither of these conditions is true for longnose gar or bowfin. The proposed daily creel limits for these species will protect these important populations. Additional language changes will also be necessary in 4VAC15-350-70 Section D (see page 48) and 4VAC15-360-10 (see page 51).

Blue Catfish – Daily Creel Limit of Large Fish: Limiting daily creel of Blue Catfish longer than 32 inches was intended to support trophy fisheries in waters of the Commonwealth. At the time it was adopted (2006), the Commonwealth's non-native populations Blue Catfish were undergoing the post-introduction boom phase of the classic "successful" fish introduction cycle. In recent years, growth of individual Blue Catfish has slowed to the point where most Virginia populations are not suited to managing for trophy fisheries. The systems in question are unlikely to produce trophy Blue Catfish at a level needed to sustain trophy fisheries. The exceptions to this situation are the following: tidal James River and its tidal tributaries, York River and its

tributaries (e.g., Mattaponi River and Pamunkey River), and Kerr Reservoir. In those waters, where trophy fisheries still exist and have prominent angler participation and support, staff recommends the daily creel limit for Blue Catfish over 32 inches be maintained, while that limit be removed from all other waters.

American Eel – Statewide Recreational Size Limit/Daily Creel Limit: American Eel is a catadromous fish species that inhabits nearly all waterbodies in Virginia. Even though these fish are found in inland waters, they are federally regulated due to their life phases, which require the species to utilize coastal bays and ocean waters for spawning and early life stages. The species garnered considerable attention from federal fisheries regulators in recent years, with the U.S. Fish and Wildlife Service being petitioned to add the species to the federal list of endangered and threatened species. Additionally, there have been modifications made recently to the Atlantic State Marine Fisheries Commission (ASMFC) Interstate Fishery Management Plan for American Eels. These regulatory modifications mandate that all Atlantic Coast states amend their fisheries regulations for American Eels to adopt a minimum size of nine (9) inches total length. The proposed statewide change will ensure compliance with the updated ASMFC Interstate Fishery Management Plan for American Eel. The proposed decrease to the daily creel limit from the current limit of 50 to 25, with an exception proved for the "for sale" permit holders harvesting eels in Back Bay and/or North Landing River in the City of Virginia Beach, will ensure compliance with the Interstate Fishery Management Plan.

4VAC15-320. FISH: FISHING GENERALLY

4VAC15-320-120. Special Daily Permit for Fishing in Clinch Mountain Wildlife Management Area, Douthat State Park Lake and Crooked and Wilson Creeks.

SUMMARY:

The proposal is remove the requirement of a special daily permit for fishing on a portion of Big Tumbling Creek on the Clinch Mountain Wildlife Management Area (Smyth County) where a seasonal catch and release area will be implemented.

PROPOSED LANGUAGE OF AMENDMENT:

4VAC15-320-120. Special Daily Permit for Fishing in Clinch Mountain Wildlife Management Area, Douthat State Park Lake and Crooked and Wilson Creeks.

[A.] It shall be unlawful to fish in the [portion of Big Tumbling Creek within the] Clinch Mountain Wildlife Management Area [~~(except in Little Tumbling Creek and Laurel Bed Lake)~~], in Douthat State Park Lake and in Wilson Creek both above the lake to the park boundary and downstream to the lower USFS boundary, and in the Crooked Creek fee fishing area in Carroll County without having first paid to the department for such privilege a daily use fee. Such daily use fee shall be in addition to all other license fees provided by law. ~~[Upon payment of the daily use fee the department shall issue a special permit that shall be signed and carried by the person fishing.]~~

[B.] This fee will be required from the first Saturday in April through September 30 [~~at~~][for the portion of Big Tumbling Creek within the] Clinch Mountain Wildlife Management Area [~~(except Little Tumbling Creek and Laurel Bed Lake)~~] and [~~at~~] Crooked Creek fee fishing area in Carroll County, and from the first Saturday in April through June 15 and from September 15 through October 31 at Douthat State Park Lake and Wilson Creek, except that the director may temporarily suspend fee requirements if conditions cause suspension of trout stocking. During the remainder of the year, [Douthat State Park Lake, Wilson Creek, and the Crooked Creek fee fishing area in Carroll County] [~~these waters~~] will revert to designated stocked trout waters and a trout license will be required except as provided in 4VAC15-20-190~~.~~ and [~~excepting a~~][the] portion of Big Tumbling Creek within the Clinch Mountain Wildlife Management Area[~~, which~~] will revert to a seasonal catch and release area subject to 4VAC15-330-150. No fishing is permitted in these waters for five days preceding the opening day.

[C. Upon payment of the daily use fee the department shall issue a special permit that shall be signed and carried by the person fishing.]

[D.] Fishing shall begin at 9 a.m. on opening day at all fee areas. After opening day, fishing times will be as posted at each fee area.

[E.] The department may recognize clearly marked "children only" fishing areas within any department fee fishing area. Within these "children only" areas, children 12 years old or younger may fish without the daily use fee if accompanied by a fully licensed adult who has purchased a

valid daily permit. No person older than 12 years of age may fish in these children-only areas. Also, children 12 years of age and younger can fish without a permit in all three fee fishing areas if under the direct supervision of a permitted adult. However, the combined daily creel limit for both adult and child/children in such a party shall not exceed six trout. During the fee fishing season these waters will be subject to 4VAC15-330-60, 4VAC15-330-80, and 4VAC15-330-90, as it relates to designated stocked trout waters.

STAFF FINAL RECOMMENDATION:

Staff recommends adoption of the amendments as proposed, and with the technical modifications recommended by the Virginia Registrar of Regulations. These recommendations significantly improve the clarity of the regulation. Staff recommends an effective date of January 1, 2017.

RATIONALE:

The modifications to the proposed language were recommended by the Registrar for clarity.

The Trout Management Plan recommends an increase in special regulation opportunities for catchable stocked trout throughout Virginia to meet diversified angler interests. Currently, the referenced section of Big Tumbling Creek is managed under the Clinch Mountain Fee Fishing Area from the first Saturday in April until September 30. The addition of this seasonal special regulation section will provide additional angling opportunities for anglers during the fall/winter months for stocked trout. Clinch Mountain Wildlife Management Area attracts numerous anglers, hunters, and campers during the fall/winter months, which could benefit from this additional recreational opportunity. To fully implement this proposed change, the Board has also proposed changes to 4VAC15-330-150 (see page 34).

Fish: Trout Fishing

4VAC15-330. FISH: TROUT FISHING

4VAC15-330-120. Special provisions applicable to certain portions of Buffalo Creek, Dan River, Pound River, Roaring Run, South River, and South Fork Holston River.

4VAC15-330-130. Special provision applicable to certain portions of Mossy Creek.

SUMMARY:

The proposals are to remove requirements of 16-inch minimum size limits and artificial lures only for fishing for trout in South River (from the Oak Lane Bridge near Waynesboro upstream to a sign posted 1.5 miles above the State Route 632 (Shalom Road) Bridge) and to establish this area for fly fishing only, with a 20-inch minimum size for trout.

PROPOSED LANGUAGE OF AMENDMENTS:

4VAC15-330-120. Special Provisions Applicable to Certain Portions of Buffalo Creek, Dan River, Pound River, Roaring Run, ~~South River,~~ and South Fork Holston River.

A. It shall be lawful year around to fish using only artificial lures with single hooks in that portion of Buffalo Creek in Rockbridge County from the confluence of Colliers Creek upstream 2.9 miles to the confluence of North and South Buffalo Creeks, ~~in that portion of South River from the N. Oak Lane Bridge in Waynesboro upstream to a sign posted 1.5 miles above the State Route 632 (Shalom Road) Bridge,~~ in that portion of the Dan River in Patrick County from Talbott Dam approximately six miles downstream to a sign posted just upstream from the confluence of Dan River and Townes Reservoir, in that portion of the Pound River from a sign posted 0.4 miles below the Flannagan Dam, downstream 1.2 miles to a sign posted just upstream of the confluence of the Pound River and the Russell Fork River, in that portion of the South Fork Holston River in Smyth County from a sign posted at the upper Jefferson National Forest boundary downstream approximately four miles to a sign posted 500 feet upstream of the concrete dam at Buller Fish Culture Station, and in that portion of Roaring Run in Botetourt County from a sign posted at the third footbridge above the Roaring Run Furnace Day Use Area upstream approximately one mile to a sign posted at the Botetourt/Alleghany County line.

B. The daily creel limit in these waters shall be two trout a day year around and the size limit shall be 16 inches or more in length. All trout caught in these waters under 16 inches in length shall be immediately returned to the water unharmed. It shall be unlawful for any person to have in his possession any bait or any trout under 16 inches in length in these areas.

4VAC15-330-130. Special Provision Applicable to Certain Portions of Mossy Creek and South River.

It shall be lawful year around to fish using only artificial flies with single hooks in that portion of Mossy Creek in Augusta County upstream from the Augusta/Rockingham County line to a sign posted at the confluence of Joseph's Spring and in that portion of South River from the N. Oak Lane Bridge in Waynesboro upstream to a sign posted 1.5 miles above the State Route 632 (Shalom Road) Bridge. The daily creel limit in these waters shall be one trout a day year around and the size limit shall be 20 inches or more in length. All trout caught in these waters under 20 inches in length shall be immediately returned to the water unharmed. It shall be unlawful for any person to have in his possession any bait or any trout under 20 inches in length in this area.

STAFF FINAL RECOMMENDATION:

Staff recommends adoption of the amendments as proposed, with an effective date of January 1, 2017.

RATIONALE:

The Department has partnered with the Shenandoah Valley Chapter of Trout Unlimited (TU) and multiple private landowners to open a four-mile reach of South River to public angling. TU maintains the relationship with the private landowners, and the VDGIF manages the fishery though trout stocking, monitoring, and law enforcement. Anglers must obtain a "free" permit to fish the upper South River Special Regulation Area. This condition was established at the request of the private landowners. Currently, the fishery is managed with a 16-inch minimum size, 2-fish per day, single-point hook artificial lure regulation. A local fly fishing shop and trout anglers have advocated for a change in the current regulations to fly fishing only, 20-inch minimum size, one fish per day. The primary reason that private landowners agreed to allow public fishing on their properties along this stream was the presence of existing restrictive regulations. Trout Unlimited has surveyed the private landowners along this portion of South River, and the majority of them are in favor of this recommended change. Department biologists do not anticipate any negative impacts to the trout fishery associated with this proposal.

4VAC15-330. FISH: TROUT FISHING

4VAC15-330-150. Special Provision Applicable to Stewarts Creek Trout Management Area; Certain Portions of the Dan, Rapidan, South Fork Holston and Staunton Rivers, the Brumley Creek, East Fork of Chestnut Creek, Little Stony Creek, Little Tumbling Creek, North Creek, Roaring Fork, Spring Run, Stony Creek, Venrick Run, and Their Tributaries.

SUMMARY:
The proposals are to create a seasonal catch-and-release section on Big Tumbling Creek (Smyth County), open annually to fishing for trout with the use of artificial lures only from October 1 until five days prior to the first Saturday in April, and to create a catch-and-release fishery on a portion of South River in the City of Waynesboro, open to fishing for trout with the use of artificial lures only.

PROPOSED LANGUAGE OF AMENDMENT:

4VAC15-330-150. Special Provision Applicable to Stewarts Creek Trout Management Area; Certain Portions of the Dan, Rapidan, South Fork Holston and Staunton Rivers, the Brumley Creek, East Fork of Chestnut Creek, Little Stony Creek, Little Tumbling Creek, Big Tumbling Creek, North Creek, Roaring Fork, Spring Run, Stony Creek, Venrick Run, South River, and Their Tributaries.

It shall be lawful year around to fish for trout using only artificial lures with single hooks within:

1. The Stewarts Creek Trout Management Area in Carroll County.
2. The Rapidan and Staunton rivers and their tributaries upstream from a sign at the Lower Shenandoah National Park boundary in Madison County.
3. The Dan River and its tributaries between the Townes Dam and the Pinnacles Hydroelectric Project powerhouse in Patrick County.
4. The East Fork of Chestnut Creek (Farmer's Creek) and its tributaries upstream from the Blue Ridge Parkway in Grayson and Carroll Counties.
5. Roaring Fork and its tributaries upstream from the southwest boundary of Beartown Wilderness Area in Tazewell County.
6. That section of the South Fork Holston River and its tributaries from the concrete dam at Buller Fish Culture Station downstream to the lower boundary of the Buller Fish Culture Station in Smyth County.
7. North Creek and its tributaries upstream from a sign at the George Washington National Forest North Creek Campground in Botetourt County.
8. Spring Run from it confluence with Cowpasture River upstream to a posted sign at the discharge for Coursey Springs Hatchery in Bath County.
9. Venrick Run and its tributaries within the Big Survey Wildlife Management Area and Town of Wytheville property in Wythe County.
10. Brumley Creek and its tributaries from the Hidden Valley Wildlife Management Area boundary upstream to the Hidden Valley Lake Dam in Washington County.
11. Stony Creek (Mountain Fork) and its tributaries within the Jefferson National Forest in Wise and Scott Counties from the outlet of High Knob Lake downstream to the confluence of Chimney Rock Fork and Stony Creek.

12. Little Stony Creek and its tributaries within the Jefferson National Forest in Scott County from the Falls of Little Stony Creek downstream to a posted sign at the Hanging Rock Recreation Area.
13. Little Tumbling Creek and its tributaries within the Clinch Mountain Wildlife Management Area in Smyth and Tazewell Counties downstream to the concrete bridge.
14. Big Tumbling Creek and its tributaries within the Clinch Mountain Wildlife Management Area in Smyth County from a sign starting at the foot of the mountain and extending upstream seasonally from October 1 until five days prior to the first Saturday in April.
15. South River in the City of Waynesboro from the Arch Avenue Bridge downstream 2.2 miles to the Second Street Bridge.
All trout caught in these waters must be immediately returned to the water. No trout or bait may be in possession at any time in these areas.

STAFF FINAL RECOMMENDATION:

Staff recommends adoption of the amendments as proposed, with an effective date of January 1, 2017.

RATIONALE:

Addition of Big Tumbling Creek: The Trout Management Plan identifies an increased need for special regulation opportunities for catchable stock trout throughout Virginia to meet diversified angler interests. Currently, the referenced section of Big Tumbling Creek is managed under the Clinch Mountain Fee Fishing Area from the first Saturday in April until September 30. The addition of this additional seasonal special regulation will provide additional angling opportunities for anglers seeking stocked trout during the fall/winter months. Clinch Mountain Wildlife Management Area attracts numerous anglers, hunters, and campers during the fall/winter months; these individuals would benefit from an additional recreational opportunity. To fully implement this recommendation, the Board has also proposed changes to 4VAC15-320-120 (see page 32).

Addition of South River: The intent of the delayed harvest program is to incorporate aspects of both catch-and-release and put-and-take (harvest) trout fishing. Streams in this program are generally large and provide good trout habitat. However, water temperature often limits trout survival through the summer months. There are currently 14 streams in the delayed harvest program in Virginia. Currently, there is only one stream (Spring Run, Bath County) being stocked with catchable size trout where the regulations are catch-and-release, artificial lure only. A trout license is required to fish Spring Run from October 1 through June 15. At this time, the only stream that DGIF manages as "fly fishing only" is Mossy Creek in Augusta County. Mossy Creek is stocked with fingerling trout and is managed with a 20-inch minimum size regulation.

There are no major biological implications with the proposed addition of South River to the "artificial lures only" program. Summer stream temperature is marginal and the thermal "refuge" exists only in the upstream half of the stream reach being considered. Department staff cannot predict how many trout the stream could support under a catch-and-release management scenario. There is strong support from the local fly fishing community to change the regulation on this reach of South River. Department biologists think that making the reach "fly fishing only" will discriminate against a portion of anglers that choose to fish with spinning gear.

However, an angler/creel survey conducted from October 2014 through June 2015 indicated that 10% of anglers fishing the South River delayed harvest reach used spinning tackle with artificial lures. A 2013-14 creel survey conducted on the delayed harvest section of the Roanoke River in Salem revealed that 29% of anglers used artificial lures. During the South River delayed harvest creel survey, anglers were also asked what type of regulation they would prefer to see the current delayed harvest section of South River be managed under. Overall, there was no significant positive support for changing the regulation from the current delayed harvest regulations.

There has also been a concern that eliminating the "harvest" season (June 1 through September 30) would significantly impact anglers who come to the existing South River Delayed Harvest Section specifically to harvest trout when the harvest season begins on June 1. Department biologists conducted an angler creel survey on the South River during the first two weeks of June 2015 to determine the number of anglers specifically coming to the river to harvest trout and to estimate how many trout are harvested from the delayed harvest section. The creel survey revealed that an estimated 1,259 trout were caught and only 555 were harvested, showing that some anglers were selectively creeling trout while others were practicing total catch-and-release. Fishing pressure significantly declined after the first two weeks of the stream being opened to harvest. Ultimately, Department biologists think that, if the delayed harvest section of South River is changed to catch-and-release, only a minority of anglers will be affected. Additional stocked trout waters are within close proximity where bait or harvest-oriented anglers can fish.

4VAC15-330. FISH: TROUT FISHING

4VAC15-330-160. Special Provisions Applicable to Certain Portions of Accotink Creek, Back Creek, Chestnut Creek, Hardware River, Holliday Creek, Holmes Run, North River, Passage Creek, Peak Creek, Pedlar River, North Fork of Pound and Pound Rivers, Roanoke River, and South River.

SUMMARY:

The proposal is to establish delayed harvest trout waters on three streams in Lee, Scott and Wise counties and to remove a portion of South River in the City of Waynesboro from the delayed harvest trout program.

PROPOSED LANGUAGE OF AMENDMENT:

4VAC15-330-160. Special Provisions Applicable to Certain Portions of Accotink Creek, Back Creek, Big Moccasin Creek, Chestnut Creek, Hardware River, Holliday Creek, Holmes Run, Indian Creek, North River, Passage Creek, Peak Creek, Pedlar River, North Fork of Pound and Pound Rivers, Middle Fork of Powell River, and Roanoke River~~, and South River~~.

It shall be lawful to fish from October 1 through May 31, both dates inclusive, using only artificial lures in Accotink Creek (Fairfax County) from King Arthur Road downstream 3.1 miles to Route 620 (Braddock Road), in Back Creek (Bath County) from the Route 600 bridge just below the Virginia Power Back Creek Dam downstream 1.5 miles to the Route 600 bridge at the lower boundary of the Virginia Power Recreational Area, in Big Moccasin Creek (Scott County) from the VDOT foot bridge downstream approximately 1.9 miles to the Wadlow Gap Bridge, in Chestnut Creek (Carroll County) from the U.S. Route 58 bridge downstream 11.4 miles to the confluence with New River, in the Hardware River (Fluvanna County) from the Route 646 bridge upstream 3.0 miles to Muleshoe Bend as posted, in Holliday Creek (Appomattox/Buckingham Counties) from the Route 640 crossing downstream 2.8 miles to a sign posted at the headwaters of Holliday Lake, in Holmes Run (Fairfax County) from the Lake Barcroft Dam downstream 1.2 miles to a sign posted at the Alexandria City line, in Indian Creek within the boundaries of Wilderness Road State Park (Lee County), in the North River (Augusta County) from the base of Elkhorn Dam downstream 1.5 miles to a sign posted at the head of Staunton City Reservoir, in Passage Creek (Warren County) from the lower boundary of the Front Royal State Hatchery upstream 0.9 miles to the Shenandoah/Warren County line, in Peak Creek (Pulaski County) from the confluence of Tract Fork downstream 2.7 miles to the Route 99 bridge, in the Pedlar River (Amherst County) from the City of Lynchburg/George Washington National Forest boundary line (below Lynchburg Reservoir) downstream 2.7 miles to the boundary line of the George Washington National Forest, in North Fork of Pound and Pound rivers from the base of North Fork of Pound Dam downstream to the confluence with Indian Creek, in the Middle Fork of Powell River (Wise County) from the old train trestle at the downstream boundary of Appalachia extending approximately 1.9 miles downstream to the trestle just upstream of the town of Big Stone Gap, in the Roanoke River (Roanoke County) from the Route 760 bridge (Diuguids Lane) upstream 1.0 miles to a sign posted at the upper end of Green Hill Park (Roanoke County), and in the Roanoke River (City of Salem) from the Route 419 bridge upstream 2.2 miles to the Colorado Street bridge~~, and in the South River from the~~

~~Second Street Bridge upstream 2.4 miles to the base of Rife Loth Dam in the City of Waynesboro~~. From October 1 through May 31, all trout caught in these waters must be immediately returned to the water unharmed, and it shall be unlawful for any person to have in possession any bait or trout. During the period of June 1 through September 30, the above restrictions will not apply.

STAFF FINAL RECOMMENDATION:

Staff recommends adoption of the amendments as proposed, with an effective date of January 1, 2017.

RATIONALE:

The Trout Management Plan recommends an increase in special regulation opportunities for catchable stock trout throughout Virginia to meet diversified angler interests. Officials from Wise County and Wilderness Road State Park had originally contacted Department staff about establishing additional trout fishing opportunities on the Middle Fork Powell River and Indian Creek, respectively. Additionally, VDGIF Law Enforcement staff suggested the inclusion of additional trout waters on Big Moccasin Creek and indicated that Gate City and Scott County officials would be supportive of these efforts. These additional trout waters would better serve local anglers and possibly attract more tourism to some of these areas.

The removal of South River in the City of Waynesboro from the delayed harvest program is recommended in support of new "artificial lures only" fishery opportunities. There is strong support from the local fly fishing community to change the regulation governing fishing opportunity in this reach. While this changed designation would discriminate against anglers that choose to fish with spinning gear, the Board has proposed this amendment in acknowledgement of local support for the change. Additional stocked trout waters are within close proximity to the referenced South River reach and are available to bait or harvest-oriented anglers.

4VAC15-330. FISH: TROUT FISHING

4VAC15-330-210. Special provisions applicable to Youth-only Stocked Trout Waters. (new)

SUMMARY:

The proposal is to develop Youth-only Stocked Trout Waters where only youth 12 years of age and younger can fish specific waters from April 1 through June 15.

PROPOSED LANGUAGE OF REGULATION:

4 VAC 15-330-210. Special provisions applicable to Youth-only Stocked Trout Waters. Waters selected by the director for inclusion into the Youth-only Stocked Trout Program will be considered Youth-Only Stocked Trout Waters from April 1 through June 15. Only youth 15 years of age and younger may participate in the program. The daily trout creel limit shall be three. From June 16 through March 31, statewide fishing regulations and licensing requirements apply. Adults (17 years of age and older) are not required to have a freshwater fishing license or a trout license to assist youth fishing in Youth-Only Stocked Trout Waters. Adults assisting youth (12 years of age and younger) while fishing in Youth-Only Stocked Trout Waters can:

1. Bait the hook;
2. Assist in casting; and
3. Assist with removing the fish from the hook/line.

Adults cannot assist with catching a fish (setting the hook and/or retrieving the fish).

STAFF FINAL RECOMMENDATION:

Staff recommends adoption of the amendments as proposed, with an effective date of January 1, 2017.

RATIONALE:

Recruitment of new trout anglers is a top priority for the Department. The average age of anglers that fish for stocked trout in Virginia is approaching fifty. Trout license sales are also on the decline. The future of fishing in Virginia, and the Department's stocked trout program, is dependent on recruiting youth to the sport. The Department has supported kids-only fishing days across the Commonwealth for many years. In 2015, the VDGIF provided trout for 29 different kids fishing events. While these events are very popular, they last for no more than one day. Department staffs do not know how many of the children participating in these events go on to become licensed anglers or stocked trout anglers in the future. Recent public input also demonstrated an on-going need for special resources available to youth only where they do not have to "compete" with adult anglers.

Fish: Seines and Nets

4VAC15-340. FISH : SEINES AND NETS

4VAC15-340-30. Gill nets.

SUMMARY:

The proposals are to remove the summer portion of the Back Bay and North Landing River gill net season (July 1 through November 1, for "Striped" mullet only) and to allow the harvest of Striped Mullet during the remainder of the gill net season (November 1 through March 31).

PROPOSED LANGUAGE OF AMENDMENT:

4VAC15-340-30. Gill nets.

A. Authorization to take fish. A gill net permit shall authorize the holder thereof to take nongame fish during the times and in the waters and for the purposes provided for in this section. Such gill net shall not be more than 300 feet in length. The mesh size shall be not less than 1 inch bar or square mesh (three-inch stretch mesh). Applicants must annually purchase tags for each net the applicant intends to operate and attach a department tag to each net prior to use. A single permit will be issued to the permittee and shall list each tag number the permittee has been issued. All nets must be checked daily and all game fish returned to the wild.

B. Permit holder to be present when gill net is being set and checked for fish. The holder of a gill net permit must be present with the net at all times when it is being set and checked for fish. The holder may have others to assist him, and such persons assisting are not required to have a permit. However, those assisting the permittee must meet the fishing license requirements of the Commonwealth.

C. Times and places permitted in Virginia Beach City; fish which may be taken. Gill nets may be used in Virginia Beach City in Back Bay and its natural tributaries (not including Lake Tecumseh and Red Wing Lake) and North Landing River from the North Carolina line to Pungo Ferry (not including Blackwater River) ~~for the taking of mullet only for table use and also for sale from July 1 through November 1, both dates inclusive; and~~ for the taking of ~~other~~ nongame fish, except ~~mullet,~~ alewife~~,~~ and blueback herring, for table use and also for sale from November 1 through March 31, both dates inclusive. The harvest limit for anadromous American and hickory shad shall be 10 per day, in the aggregate. Gill nets set in Back Bay waters shall be at least 300 feet from any other net and at least 300 feet from the shoreline. All such nets must be marked at both ends and at least every 100 feet along the length of the net with a five-inch by 12-inch minimum dimensions float.

STAFF FINAL RECOMMENDATION:

Staff recommends adoption of the amendments as proposed, with an effective date of January 1, 2017.

RATIONALE:

This regulation was originally enacted in 1991, with the intent to allow the historical gill net fishery to persist, while minimizing potential impacts to depleted sport fish populations, at a time of significant degradation of habitat and reduced freshwater fish populations. It provided commercial and subsistence gill net fishermen with a means by which to harvest and sell (if

desired) non-game fish. Within the regulation sub-sections, the gill net season was split into two segments, representing two distinct fisheries. The first segment from July 1 through November 1 was specifically set to allow for a traditional fishery for "mullet," specifically the Striped Mullet. Eliminating the summer "mullet" season is a housekeeping measure, given the ongoing lack of participation in summertime mullet fishery. Department biologists are unaware of any participation in this fishery for many years; this assessment is based on permit reports, staff observations, discussions with active gill net fishermen and extensive on-water fishery survey work.

While the summer gill net fishery is currently non-existent, staff has significant concerns regarding excessive mortality of fish captured in gill nets should the fishery re-commence. Mortality in gill nets is correlated to the ambient water temperature; that is, as water temperature increases, fish mortality in gill nets increases dramatically. Largemouth Bass interaction with gill nets is of particular concern, and this proposal will afford protection of the recovering Largemouth Bass population in Back Bay.

Staff has heard from current, active commercial fishermen who have inquired about the potential to keep mullet during the later segment of the gill net season, specifically November 1 through March 31. The primary fish species targeted during this segment is White Perch, although other species are harvested as well. Current regulatory language does not allow the harvest of "mullet" during this segment of the gill net season. From a biological perspective, staff has identified no need to continue to exclude mullet (Striped Mullet) from this season. Staff supports allowing mullet to be harvested in the November 1 through March 31 segment.

4VAC15-340. FISH : SEINES AND NETS

4VAC15-340-70. Eel Pots for taking American Eels for personal use.

SUMMARY:

The proposals are to modify the minimum size and creel limit for any American Eel that is harvested with eel pots for personal use in the waters of Back Bay and the North Landing River to ensure compliance with the Atlantic States Marine Fisheries Commission's Interstate Fishery Management Plan for the species.

PROPOSED LANGUAGE OF AMENDMENT:

4VAC15-340-70. Eel pots for taking American eels for personal use.

A. The director may issue, deny, modify, suspend, or revoke annual eel pot permits for American eels designated for personal use. Such permits shall authorize the taking of American eels for personal use only (not for sale) with eel pots from waters designated in this section. Such permits shall be valid so long as the harvest of eels in the Commonwealth is not prohibited by other state or federal law or regulation.

B. It shall be unlawful for a permit holder to possess elvers.

C. It shall be unlawful for permit holders fishing eel pots to take any species other than American eels.

D. It shall be unlawful to place, set, or fish any eel pot that has a mesh less than 1/2-inch by 1/2-inch and does not contain at least one unrestricted 4-inch by 4-inch escape panel of 1/2-inch by 1-inch mesh. Buoys of all pots set must be marked by permanent means with the permit holder's name, address, and phone number.

E. American eels may be taken with eel pots in Back Bay and its natural tributaries (not including Lake Tecumseh and Red Wing Lake) and North Landing River and its natural tributaries from the North Carolina line to the Great Bridge locks.

F. It shall be unlawful for any permit holder to possess more than ~~50~~25 eels daily. When fishing from a boat or vessel where the entire catch is held in a common hold or container, the daily possession limit shall be for the boat or vessel and shall be equal to the number of permit holders on board multiplied by ~~50~~25. The captain or operator of the boat or vessel shall be responsible for any boat or vessel possession limit. Any eel taken after the daily possession limit has been reached shall be returned to the water immediately. Possession of any quantity of eels that exceeds the daily possession limit described in this subsection shall be presumed to be for commercial purposes.

G. For the purposes of this section, the term "elver" shall mean any American eel less than ~~six~~ nine inches in total length.

STAFF FINAL RECOMMENDATION:

Staff recommends adoption of the amendments as proposed, with an effective date of January 1, 2017.

RATIONALE:

The American Eel is a catadromous fish species that inhabits nearly all waterbodies in Virginia. Even though these fish are found in inland waters, they are federally regulated due to their life

cycle which requires them to utilize coastal bays and ocean waters for spawning and early life phases. The species garnered significant attention from federal fisheries regulators in recent years, when the U.S. Fish and Wildlife Service was petitioned to include the species on the federal list of endangered and threatened species. Additionally, modifications have been made to the Atlantic State Marine Fisheries Commission (ASMFC) Interstate Fishery Management Plan for American Eels. These regulatory modifications mandate that all Atlantic Coast states amend their fisheries regulations for American Eels to include minimum size of nine (9) inches total length and reduced creel limits. The proposed changes ensure regulatory compliance with ASMFC requirements.

4VAC15-340. FISH: SEINES AND NETS

4VAC15-340-80. Eel Pots for taking American eels for sale.

SUMMARY:

The proposal is to modify the minimum size for American Eels harvested with eel pots for commercial purposes ("for sale") in the waters of Back Bay and the North Landing River. The Atlantic States Marine Fisheries Commission (ASMFC) has required states to modify the minimum size limit for American Eels.

PROPOSED LANGUAGE OF AMENDMENT:

4VAC15-340-80. Eel pots for taking American Eels for sale.

A. The director may issue, deny, modify, suspend, or revoke annual eel pot permits designated for the sale of American eels. Such permits shall authorize the taking of American eels for sale, as specified, with eel pots from waters designated in this section. Such permits shall be valid so long as the harvest of American eels in the Commonwealth is not prohibited by other state or federal law or regulation. To be eligible, applicants must document harvest of at least one pound of American eels from Back Bay or North Landing River or their tributaries via reports submitted through the Virginia Marine Resources Commission Mandatory Harvest Reporting Program during the period January 1, 2007, to December 31, 2012, both dates inclusive. Applicants must document the reported harvest occurred while the applicant held a valid commercial fish pot or eel pot license issued by the Virginia Marine Resources Commission.

B. ~~It shall be unlawful for permit holders to possess elvers.~~ It shall be unlawful for permit holders to possess any American eel less than nine inches in total length.

C. It shall be unlawful for permit holders fishing eel pots to take any species other than American eels.

D. It shall be unlawful to place, set, or fish any eel pot that has a mesh less than 1/2-inch by 1/2-inch and does not contain at least one unrestricted 4-inch by 4-inch escape panel consisting of 1/2-inch by 1-inch mesh.

E. The permit holder's last name and Virginia Department of Game and Inland Fisheries American eel pot number must be permanently attached to buoys of all eel pots set. The maximum number of pots authorized per permit holder under this permit shall be 300.

F. American eels may be taken with eel pots in Back Bay and its natural tributaries (not including Lake Tecumseh and Red Wing Lake) and in North Landing River and its natural tributaries from the North Carolina line to the Great Bridge locks.

G. It shall be unlawful for any person to ship or otherwise transport any package, box, or other receptacle containing fish taken under an eel pot permit unless the same bears the permit holder's name and address.

H. Failure to comply with the daily harvest and sales reporting requirements as detailed in conditions of the permit shall be unlawful and may result in immediate permit revocation. It shall be the permit holder's responsibility to report "No Activity" when no activity occurs during a monthly reporting period.

~~I. For the purposes of this section, the term "elver" shall mean any American eel of less than six inches in total length.~~

STAFF FINAL RECOMMENDATION:

Staff recommends adoption of the amendments as proposed, with an effective date of January 1, 2017.

RATIONALE:

The American Eel is a catadromous fish species that inhabits nearly all waterbodies in Virginia. Even though these fish are found in inland waters, they are federally regulated due to their life cycle which requires them to utilize coastal bays and ocean waters for spawning and early life phases. The species garnered significant attention from federal fisheries regulators in recent years, when the U.S. Fish and Wildlife Service was petitioned to include the species on the federal list of endangered and threatened species. Additionally, modifications have been made to the Atlantic State Marine Fisheries Commission (ASMFC) Interstate Fishery Management Plan for American Eels. These regulatory modifications mandate that all Atlantic Coast states amend their fisheries regulations for American Eels to include minimum size of nine (9) inches total length. The proposed change ensures regulatory compliance with ASMFC requirements.

Fish: Gigs, Grab Hooks, Trotlines, Snares, Etc.

4VAC15-350. FISH: GIGS, GRAB HOOKS, TROTLINES, SNARES, ETC.

4VAC15-350-70. Taking Common Carp, Northern Snakehead, Bowfin, Catfish, and Gar with Bow and Arrow or Crossbow.

SUMMARY:

The proposals are to remove longnose gar and bowfin from and to add grass carp to the list of species that can be taken in unlimited numbers with bow and arrow or crossbow, under certain circumstances, and to establish creel limits for longnose gar and bowfin.

PROPOSED LANGUAGE OF AMENDMENT:

4VAC15-350-70. Taking Common Carp, Grass Carp, Northern Snakehead, Bowfin, Catfish, and Gar with Bow and Arrow or Crossbow.

A. Season. Except as otherwise provided by local legislation or as posted, it shall be lawful to take common carp, northern snakehead, and gar from the public inland waters of the Commonwealth, grass carp from public inland waters of the Commonwealth except department-owned or department-controlled lakes, and bowfin and catfish from below the fall line in tidal rivers of the Chesapeake Bay, except waters stocked with trout, by means of bow and arrow or crossbow.

B. Poison arrows or explosive-head arrows prohibited. It shall be unlawful to use poison arrows or arrows with explosive heads at any time for the purpose of taking common carp, grass carp, northern snakehead, bowfin, catfish, or gar in the public inland waters of the Commonwealth.

C. Fishing license required. All persons taking fish in the manner mentioned in this section shall be required to have a regular fishing license.

D. Creel limits. Common carp, grass carp, northern snakehead, ~~bowfin,~~ and catfish~~, and gar~~ – unlimited, provided that any angler taking northern snakehead immediately kill such fish and notify the department, as soon as practicable, of such actions and provided that any angler taking grass carp ensure that harvested fish are dead. The creel limit for bowfin and longnose gar shall be 5 fish per day.

STAFF FINAL RECOMMENDATION:

Staff recommends adoption of the amendments as proposed, with an effective date of January 1, 2017.

RATIONALE:

Creel limits for longnose gar and bowfin: Both longnose gar and bowfin are long-lived, slow-maturing species with low recruitment rates. They are also a popular target of bowfishermen, who rely on targeting fish that are near the surface. Gar and bowfin are possibly more vulnerable to bow fishing because they gulp air from the surface in waters lacking sufficient oxygen; they are often found resting or waiting motionless near the surface waiting for prey; and they feed at night during the same time bow fishers are most active. Hook-and-line anglers may also attempt

to remove large numbers of gar and bowfin because of a perception that these species negatively impact gamefish populations. However, there is no evidence to support this claim. In fact, both species are integral components of their aquatic environments. Most unlimited possession species are introduced (e.g., common carp) or occur in large numbers with short life spans and high recruitment rates (e.g., golden shiner and alewife). Neither of these conditions is true for longnose gar or bowfin. The proposed daily creel limits for these species will protect these important populations. To fully effect this proposed change, the Board has also proposed additional language changes to 4VAC15-320-25 (see page 9) and 4VAC15-360-10 (see page 51).

Addition of grass carp: Grass carp are actively stocked by the VDGIF in department-owned or department-controlled lakes in order to control aquatic vegetation. However, in some systems, grass carp may move out of an impounded section and into the free flowing section of a river where they may have a negative impact on desired aquatic vegetation. Currently, anglers (including bow anglers) are not permitted to harvest grass carp from any waters of the Commonwealth or to have grass carp in their possession without a permit. Allowing anglers to harvest grass carp from waters where grass carp are not actively stocked or desired by the VDGIF will help to control this species in waters where they may have a negative impact on desired aquatic vegetation.

Fish: Aquatic Invertebrates, Amphibians, Reptiles, and Nongame Fish

4VAC15-360. FISH: AQUATIC INVERTEBRATES, AMPHIBIANS, REPTILES, AND NONGAME FISH

4VAC15-360-10. Taking Aquatic Invertebrates, Amphibians, Reptiles, and Nongame Fish for Private Use.

SUMMARY:

The proposals are to remove longnose gar and bowfin from the list of species that can be taken in unlimited numbers and to add grass carp to the list of species that can be taken in unlimited numbers, except in certain circumstances..

PROPOSED LANGUAGE OF AMENDMENT:

4VAC15-360-10. Taking Aquatic Invertebrates, Amphibians, Reptiles, and Nongame Fish for Private Use.

A. Possession limits. Except as otherwise provided for in § 29.1-418 of the Code of Virginia, 4VAC15-20-130, [~~subdivision 8 of~~] 4VAC15-320-40 and the sections of this chapter, it shall be lawful to capture and possess live for private use and not for sale no more than five individuals of any single native or naturalized (as defined in 4VAC15-20-50) species of amphibian and reptile and 20 individuals of any single native or naturalized (as defined in 4VAC15-20-50) species of aquatic invertebrate and nongame fish unless specifically listed below:

1. The following species may be taken in unlimited numbers from inland waters statewide: carp, ~~bowfin, longnose gar,~~ mullet, yellow bullhead, brown bullhead, black bullhead, flat bullhead, snail bullhead, white sucker, northern hogsucker, gizzard shad, threadfin shad, blueback herring (see 4VAC15-320-25 for anadromous blueback herring limits), white perch, yellow perch, alewife (see 4VAC15-320-25 for anadromous alewife limits), stoneroller (hornyhead), fathead minnow, golden shiner, goldfish, and Asian clams. Grass carp may only be harvested in unlimited numbers from public inland waters of the Commonwealth other than department-owned or department-controlled lakes. Anglers taking grass carp must ensure that all harvested grass carp are dead.

2. See 4VAC15-320-25 for American shad, hickory shad, channel catfish, white catfish, flathead catfish, and blue catfish limits.

3. For the purpose of this chapter, "fish bait" shall be defined as native or naturalized species of minnows and chubs (Cyprinidae), salamanders (each under six inches in total length), crayfish, and hellgrammites. The possession limit for taking "fish bait" shall be 50 individuals in aggregate, unless said person has purchased "fish bait" and has a receipt specifying the number of individuals purchased by species, except salamanders and crayfish which cannot be sold pursuant to the provisions of 4VAC15-360-60 and 4VAC15-360-70. However, stonerollers (hornyheads), fathead minnows, golden shiners, and goldfish may be taken and possessed in unlimited numbers as provided for in subdivision 1 of this subsection.

4. The daily limit for bullfrogs shall be 15 and for snapping turtles shall be five. Snapping turtles shall only be taken from June 1st to September 30th. Bullfrogs and snapping turtles may not be taken from the banks or waters of designated stocked trout waters.

5. The following species may not be taken in any number for private use: candy darter, eastern hellbender, diamondback terrapin, and spotted turtle.

6. Native amphibians and reptiles, as defined in 4VAC15-20-50, that are captured within the Commonwealth and possessed live for private use and not for sale may be liberated under the following conditions:
a. Period of captivity does not exceed 30 days;
b. Animals must be liberated at the site of capture;
c. Animals must have been housed separately from other wild-caught and domestic animals; and
d. Animals that demonstrate symptoms of disease or illness or that have sustained injury during their captivity may not be released.
B. Methods of taking species in subsection A. Except as otherwise provided for in the Code of Virginia, 4VAC15-20-130, 4VAC15-320-40, and other regulations of the board, and except in any waters where the use of nets is prohibited, the species listed in subsection A may only be taken [(i)]by hand, hook and line[~~,~~; (ii)] with a seine not exceeding four feet in depth by 10 feet in length[~~,~~; (iii) with] an umbrella type net not exceeding five by five feet square[~~,~~; (iv)] small minnow traps with throat openings no larger than one inch in diameter[~~,~~; (v) with] cast nets[~~,~~;] and [(vi) with] hand-held bow nets with diameter not to exceed 20 inches and handle length not to exceed eight feet (such cast net and hand-held bow nets when so used shall not be deemed dip nets under the provisions of § 29.1-416 of the Code of Virginia). Gizzard shad and white perch may also be taken from below the fall line in all tidal rivers of the Chesapeake Bay using a gill net in accordance with Virginia Marine Resources Commission recreational fishing regulations. Bullfrogs may also be taken by gigging or bow and arrow and, from private waters, by firearms no larger than .22 caliber rimfire. Snapping turtles may be taken for personal use with hoop nets not exceeding six feet in length with a throat opening not exceeding 36 inches.
C. Areas restricted from taking mollusks. Except as provided for in §§ 29.1-418 and 29.1-568 of the Code of Virginia, it shall be unlawful to take the spiny riversnail (Io fluvialis) in the Tennessee drainage in Virginia (Clinch, Powell and the North, South and Middle Forks of the Holston Rivers and tributaries). It shall be unlawful to take mussels from any inland waters of the Commonwealth.
D. Areas restricted from taking salamanders. Except as provided for in §§ 29.1-418 and 29.1-568 of the Code of Virginia, it shall be unlawful to take salamanders in Grayson Highlands State Park and on National Forest lands in the Jefferson National Forest in those portions of Grayson, Smyth and Washington Counties bounded on the east by State Route 16, on the north by State Route 603 and on the south and west by U.S. Route 58.

STAFF FINAL RECOMMENDATION:

Staff recommends adoption of the amendments as proposed, and with the technical modifications recommended by the Virginia Registrar of Regulations and removing the erroneous reference to "subdivision 8" of 4VAC15-320-40. These recommendations significantly improve the clarity of the regulation. Staff recommends an effective date of January 1, 2017.

RATIONALE:

The modifications to the proposed language were recommended by the Registrar for clarity.

Removal of longnose gar and bowfin from unlimited harvest: Both longnose gar and bowfin are long-lived, slow-maturing species with low recruitment rates. They are also a popular target of bowfishermen, who rely on targeting fish that are near the surface. Gar and bowfin are

possibly more vulnerable to bow fishing because they gulp air from the surface in waters lacking sufficient oxygen; they are often found resting or waiting motionless near the surface waiting for prey; and they feed at night during the same time bow fishers are most active. Hook-and-line anglers may also attempt to remove large numbers of gar and bowfin because of a perception that these species negatively impact gamefish populations. However, there is no evidence to support this claim. In fact, both species are integral components of their aquatic environments. Most unlimited possession species are introduced (e.g., common carp) or occur in large numbers with short life spans and high recruitment rates (e.g., golden shiner and alewife). Neither of these conditions is true for longnose gar or bowfin. To fully effect this proposed change, the Board has also proposed additional language changes to 4VAC15-320-25 (see page 9) and 4VAC15-350-70 (see page 48).

Harvest of grass carp: Grass carp are actively stocked by the VDGIF in department-owned or department-controlled lakes in order to control aquatic vegetation. However, in some systems, grass carp may move out of an impounded section and into the free-flowing section of a river where they may have a negative impact on desired aquatic vegetation. Anglers (including bow anglers) are not permitted currently to harvest grass carp from any waters of the Commonwealth or to have grass carp in possession without a permit. Allowing anglers to harvest grass carp from waters where the species is not actively stocked or desired by the VDGIF will help to control this species in waters where they may have a negative impact on desired aquatic vegetation. To fully effect this proposed change, the Board has also proposed additional language changes to 4VAC15-30-40 (see page 5) and 4VAC15-350-70 (see page 48).

VIRGINIA STOCKED TROUT MANAGEMENT PLAN (2016-2025)

EXECUTIVE SUMMARY

Trout fishing provides significant opportunities for outdoor recreation in Virginia. About one out of every seven hours spent fishing by Virginians is spent in pursuit of trout. Only Largemouth Bass and Smallmouth Bass receive more attention from anglers. Due to Virginia's warm climate, trout thrive year around only in higher-elevation mountain streams and in cold river tailwaters below a few large dams, such as the Jackson River and the Smith River. Consequently, 80% of trout fishing in Virginia depends upon the more than one million catchable-size trout stocked annually by Virginia Department of Game and Inland Fisheries (VDGIF). Approximately 100,000 anglers fish for these stocked trout in Virginia each year in more than 180 streams and lakes stocked by the VDGIF.

Due to the importance of trout fishing in Virginia, and the significant investment required to operate and maintain hatcheries to produce catchable-sized trout (generally greater than seven inches, but frequently 10-12 inches), the VDGIF developed the Virginia Stocked Trout Management Plan (hereafter referred to as the "Plan") to ensure effective and efficient management of trout fisheries over the next 10 years. Following a process similar to those used to develop statewide management plans for white-tailed deer, black bear, and wild turkey, the Virginia Stocked Trout Management Plan is designed to embody the interests of all Virginians who care about trout fishing (stakeholders). The planning process focused on balancing stakeholder values and sound biological information provided by the VDGIF to produce a plan that is technically sound and publicly supported. The Plan includes values and goals identified by stakeholders to determine what Virginians want the stocked trout program to achieve and objectives and strategies, primarily developed by the VDGIF technical staff, to describe how the goals and objectives can be achieved.

A stakeholder advisory committee, composed of 11 individuals representing the diverse interests of Virginians in management of stocked trout, worked closely with the VDGIF and Virginia Tech personnel to develop the Plan. A technical committee that included VDGIF fisheries biologists, hatchery personnel and conservation police officers provided the technical aspects of the Plan. Virginia Tech personnel facilitated meetings of the stakeholder advisory and technical committees, and helped with editing and formatting the Plan.

The Plan contains two major sections: the technical section and the goals, objectives and strategies for management of stocked trout. The technical section describes the history of trout management in Virginia, how the VDGIF approaches management of stocked trout, including production, facilities, species produced, and challenges faced in raising trout. The second section of the Plan lists the values and goals for management of stocked trout within five major issue areas (what stakeholders want to achieve and why) and the objectives and strategies for management of stocked trout (specific accomplishments that will allow the VDGIF to measure success in achieving goals and how to approach achieving goals and objectives). The Plan is designed to provide a blueprint for future direction of stocked trout management rather than specific details of day-to-day operations.

VDGIF shared the Plan with the public by posting it on the VDGIF web page in July 2015. Public comments were received online until September 15, 2015. Additional comments were received via letter to Virginia Tech personnel. Finally, Virginia Tech and VDGIF held nine public meetings across Virginia to present the Plan and receive comments. The VDGIF Technical Committee reviewed all public comments and revised the plan accordingly.

VALUES, GOALS, OBJECTIVES, AND POTENTIAL STRATEGIES

The Stakeholder Advisory Committee (SAC) members, with technical assistance and feedback from VDGIF staff, drafted five goals addressing stocked trout management. These goals reflect the values of a diverse public and are broad statements of principles and ideals about what should be accomplished with stocked trout management in Virginia. As the underpinning for the direction of stocked trout management, these guiding public values should be relatively stable for the period of the plan.

Specific objectives follow each set of value and goal statements. Based on the goals identified by the Stakeholder Advisory Committee, the Technical Committee established specific objectives to help guide the attainment of each goal. Objectives are the technical expression of the public vision found in the goal statements. Objectives are generally more specific, quantifiable, and have milestones for achievement.

Potential strategies clarify how each objective might be achieved. As with objectives, technical management decisions about specific operational strategies to achieve public values are largely the realm of fisheries professionals. Implemented strategies will be based on the best available science, anticipated efficacy, public acceptability, and expected costs. While this is not an operational plan detailing all the specific steps, actions, or costs to achieve objectives, these strategies represent some of the approaches, techniques, and programs that will be considered to accomplish objectives.

STOCKING ANNOUNCEMENTS

Under current policies, VDGIF announces waters that have been stocked at 4:00 p.m. each day. The only stocking events announced in advance are those waters stocked for Heritage Day and for kids fishing events where VDGIF supplies the trout. Virginia trout anglers are divided over the issue of announcing stocking events. A 2014 survey showed that 26% of Virginia trout anglers preferred the current policy of delayed stocking announcements, while 29% of trout anglers preferred no announcement of stocking events. Twenty-two percent of anglers preferred to have stocking events announced for the whole trout fishing season prior to its beginning, with another 23% preferring prior announcements on a daily, weekly or monthly basis. The issue of when to announce stocking events (or whether to announce them at all) is important because of concerns regarding equity of access to stocked trout. Prior announcement of stocking events allows anglers to plan fishing trips but announced stockings sometimes cause crowding and traffic safety issues when many anglers arrive at the announced time and place. Unannounced stocking events may alleviate some of the crowding and safety issues, but favor those anglers who follow the hatchery trucks, or learn of the trucks' destinations via phone trees or social networking. Delayed announcements (the current policy) provide an alternative to prior announcements and unannounced stocking events.

Prior to 1996, stocked trout fishing began on Opening Day (Saturday in late March or early April) each year. Many anglers enjoyed this announced stocking. However, several issues existed regarding opening day. Landowners concerned with crowding withdrew some stocking sites each year. Also, hatcheries can produce better quality trout if streams and lakes are stocked throughout the year. Angler surveys conducted periodically over the last 20 years indicate that about 75% of anglers support a year-round season with stockings occurring from October through May. In 2001, VDGIF began Heritage Day which provides an "opening-day" experience on the first Saturday in April. This announced stocking event occurs on about 20 waters each year. Trout are stocked that week and the site is closed to fishing until 9:00 AM on Saturday. Angler counts conducted by VDGIF indicate that fishing pressure is 3-4 times less on Heritage Day when compared to Opening Day counts on the same waters.

Value Statement

Virginia's trout anglers have diverse expectations of how trout stockings should be announced. The ability to plan fishing trips is valued by many anglers who prefer that VDGIF announce stockings before they occur. Others feel that unannounced stockings provide for more equitable access to stocked trout and a more natural fishing experience that is less crowded. Still other anglers prefer announcements delayed until the end of the day stockings are made. Trout stocking announcements should be diverse, allow for increased participation, and advanced trip planning to meet the desires of different stakeholders. Various forms of announcements should be promoted.

Goal Statement

Announce stockings using a variety of strategies (including prior announcement, post-stocking announcement, or no announcement) to provide equitable access to the resource and to address the diverse preferences of trout anglers. In addition to existing Heritage Day events, some stockings will be announced in advance to allow anglers to plan fishing trips to coincide with known stockings. Other stockings will be announced at the end of the day when stocking occurs to reduce crowding and ensure the safety of anglers and VDGIF personnel involved with stocking.

Objectives and Strategies

1. Continue the policy of not announcing stocking delayed harvest (except for the first stocking which is announced at 4:00 PM the day of stocking), catch-and-release, and other special regulation waters.
    a. List unannounced stocking sites annually in the trout guide.

2. By 10/1/2016, announce in advance stocking events in Trout Heritage waters, fee fishing areas, urban trout waters, and kid's fishing events.
    a. List Trout Heritage waters annually in the trout guide.
    b. List fee fishing areas annually in the trout guide.
    c. Stock fee fishing areas on a regular basis multiple times per week, as described in the trout guide.

d. Announce stockings for kid's fishing events at least 30 days in advance.
e. For urban trout waters, announce the week that stockings will occur at least 30 days in advance via the VDGIF website, the Outdoor Report, the Trout Line, press releases to local media, and social media. Scheduled stockings are subject to change due to inclement weather, or unforeseen circumstances.

3. Identify a minimum of two waters (by 5/1/2016) in VDGIF administrative region's 2, 3, and 4 to test prior announcement of multiple stocking events each year in those waters. Implementation should begin in 2017 and be tested for 2 years.
    a. Identify waters that have adjacent landowners who are willing to cooperate with pre-announced stocking events. Coordinate with United States Forest Service (USFS)for waters on United States Department of Agriculture (USDA) lands.
    b. Identify waters that are easily accessible by road, have adequate access to the water, and suitable parking areas (e.g., current Heritage Day waters).
    c. Identify waters that have existing infrastructure to support pre-announced stocking events (e.g., bathroom facilities, campgrounds).
    d. Identify needs for law enforcement presence to control traffic and ensure safety of hatchery personnel and anglers and enforce stocking-day closure.
    e. Schedule pre-announced stocking events to promote trout fishing at desired times (e.g., first fall stockings, weekends, holidays, free fishing weekend, and school break periods).
    f. Investigate strategies pertaining to temporary closures immediately following stocking.
    g. Investigate different stocking densities and frequencies for waters selected for prior announcement.
    h. Scheduled stockings are subject to change due to inclement weather, or unforeseen circumstances.
    i. Assess angler use, opinions, and satisfaction with pre-announcement stockings.
    j. Promote fishing education in schools (e.g., trout in the classroom, fishing clubs, etc.).
    k. Report at end of two-year evaluation.

4. Continue the current policy of announcing stocking events at 4 PM the day of stocking except for waters that receive pre-announcements or for which stockings are unannounced.
    a. Announce each day's stocking events at 4 PM online, through social media, and on the Trout Line.

5. Publish by July 15 each year a report that lists pounds of trout stocked by county and/or water in the previous 12 months.
    a. Post the report on VDGIF's website.
    b. Announce the availability of the report via the Outdoor Report and social media.

ANGLER RECRUITMENT AND RETENTION

Nearly 100,000 anglers fish for stocked trout in Virginia. Results from a 2009 statewide angler survey indicate that trout rank second to black bass in popularity with Virginia anglers.

However, the average age of licensed trout anglers is 58, suggesting that ensuring a bright future for stocked trout fishing requires recruitment of new and younger anglers. The increasingly diverse human population in Virginia presents opportunities to reach out to new angling stakeholders. Additionally, roughly half of all trout license buyers do not purchase a license the following year and thus, retention of current anglers remains a high priority. These convergent demographic trends suggest that participation in fishing for stocked trout in Virginia will decline in the future, unless VDGIF initiates awareness strategies to counteract them.

Value Statement

The future of the stocked trout program relies on recruiting and retaining anglers. If current trends in participation in trout angling do not change, and the average age of anglers continues to increase, the stocked trout program will decline because trout anglers financially support the program. The stocked trout program benefits local economies and strengthens communities as anglers seek recreational fishing opportunities. Stocked trout fishing increases environmental stewardship, outdoor participation, and preserves the long-standing tradition of fishing for stocked trout. Therefore, VDGIF should evaluate current and proposed policies to promote recruitment and retention of trout anglers, especially youth.

Goal Statement

Inform and educate existing and potential future anglers and promote fishing for stocked trout to recruit younger and more diverse anglers to the sport and to retain those already engaged.

Objectives and Strategies

1. By July 1, 2021, increase youth (under 16 years of age) participation in the stocked trout program by 10%.
    a. Evaluate the number of license buyers ages 16-20 and compare with historical data.
    b. Quantify youth participation at kids' trout fishing events.
    c. Increase number and distribution of kids' trout fishing events, including urban areas.
    d. Assess the feasibility of limiting fishing to youth only until noon on select Heritage Day Waters.
    e. Assess the feasibility of implementing youth-only days on selected waters.
    f. Assess the feasibility of establishing youth-only stocked trout waters year-round.
    g. Recommend to the Board of VDGIF inclusion of designated trout waters on free fishing weekend.
    h. Recommend to the Board of VDGIF the inclusion of a group license for stocked trout.
    i. Identify selected waters to stock for free fishing weekend in June.
    j. Schedule pre-announced stocking events to promote trout fishing at desired times (e.g., first fall stockings, holiday weekends, free fishing weekend, and school break periods).

k. Develop a competitive grant program that funds (e.g., fishing equipment and trout from private sources) non-VDGIF groups hosting kids' fishing events open to the public.
l. Promote fishing education in schools (e.g., trout in the classroom, fishing clubs, etc.).

2. By July 1, 2021, increase participation among females and minority populations in the stocked trout program by 10%.
    a. Track number of females purchasing trout license.
    b. Assess the potential for including fishing for stocked trout in programs aimed at increasing participation of females and minorities.
    c. Develop multi-lingual signs, and educational material to target specific ethnic groups.
    d. Promote stocked trout fishing opportunities among college outdoor activity organizations.
    e. Promote urban fishing to attract more females and minorities.

3. By July 1, 2025, recruit new anglers to the stocked trout program to attain 100,000 trout-license buyers (including lifetime license) annually.
    a. Assess angler participation, and motivations, constraints to participation, and management preferences in fishing for stocked trout via a statewide survey every 5 years.
    b. Assess participation by new anglers using VDGIF survey data.
    c. Modify the procedure for purchasing trout license online to assess prior license buying behavior.
    d. Encourage trout license purchases among anglers who seek specialized fishing opportunities by creating special regulation fisheries throughout Virginia.
    e. Promote stocked trout fishing opportunities among college outdoor activity organizations.
    f. Assess the feasibility of changing the regulations on delayed-harvest waters to allow harvest sooner (e.g., Memorial Day weekend).
    g. Increase information available to trout anglers by maintaining an online record of stocking information (e.g., number stocked, pounds stocked, and average size by county and/or water).
    h. Promote stocked trout fishing through other agencies, local governments, and other organizations.

4. Increase participation of non-residents by 10% in the stocked trout by program July 1, 2021.
    a. Monitor non-resident participation in stocked trout fishing through sales of non-resident license sales.
    b. Assess participation by non-resident anglers through VDGIF creel surveys.
    c. Increase information available to trout anglers by maintaining an online record of stocking information (e.g., number stocked, pounds stocked, and average size by county and/or water).
    d. Conduct a survey of former and current non-resident anglers to assess motivations, constraints, license costs and options, and management preferences.

e. Collaborate with Virginia Department of Tourism to promote stocked trout fishing in Virginia to anglers in surrounding states.
f. Advertise stocked trout fishing in regional media outlets (e.g., regional magazines, websites, TV shows).

5. Develop and implement marketing strategies to promote the stocked trout program by July 1, 2018.
    a. Monitor traffic on social media sites.
    b. Assess angler participation, and motivations, constraints to participation, and management preferences in fishing for stocked trout via a statewide survey every 5 years.
    c. Promote trout fishing as an outdoor experience (tie into motivations).
    d. Promote fishing for stocked trout by posting information and photos on Twitter, Facebook, Instagram and other social media outlets.
    e. Promote stocked trout fishing through other agencies, local governments, and other organizations.
    f. Increase information available to trout anglers by maintaining an online record of stocking information (e.g., number stocked, pounds stocked, and average size by county and/or water).
    g. Identify schools and contact people that can help disseminate information about stocked trout fishing opportunities to students.
    h. By July 1, 2018, launch an easy-to-use online resource providing details (directions, amenities, etc.) for each stocked trout fishing water.
    i. Publish 8 articles per year informing the public of stocked trout fishing opportunities (VDGIF website/blog, the Outdoor Report, and VDGIF social media).

FUNDING AND ADMINISTRATION

The stocked trout program depends upon the revenue generated from the sale of trout licenses and general fishing licenses. None of the funding for the program derives from general state taxes. A trout license and a freshwater fishing license are both required to fish for stocked trout in Virginia. A 2008 survey revealed that 64% of trout license buyers purchased these two licenses to fish solely for stocked trout. The revenue from these "double" license sales is significant. Sales of annual trout licenses have decreased substantially in recent years, while sales of lifetime trout licenses have increased substantially. Since 2001, trout anglers purchased nearly 50,000 lifetime trout licenses, but the decrease in sales of annual licenses resulted in a net decrease in revenue to support hatchery production of catchable-size trout and maintain hatchery facilities. It is not known how many lifetime trout license holders continue to fish for stocked trout.

Value Statement

To continue current operations, the stocked trout program must account for costs associated with annual production, support regular facility maintenance and promote improved efficiency in a transparent manner. Currently, license fees cover most of the operating costs of the program. However, the expensive and rising costs associated with producing and

transporting stocked trout, including, law enforcement, and public outreach not only limit the scope of the current program but also create future financial challenges. The license fee revenue should cover operating costs of the program while providing anglers with the opportunity to fish for stocked trout.

Goal Statement

Maintain a productive and adequately funded stocked trout program, including investigation of alternative funding and resource mechanisms to meet current and anticipated future demands. Maintain an open and transparent decision-making process regarding management of stocked trout.

Objectives and Strategies

1. Conduct a financial evaluation of the trout program and develop strategies based on those results by January 1, 2017.
    a. Conduct a detailed evaluation of license sales and types of licenses to assess effects on VDGIF revenues.
    b. Identify and evaluate different approaches to increase license sales including approaches of other states, for example multi-year licenses, rollover licenses and automatic renewal or notification.
    c. Evaluate demographic trends for potential impacts on future license sales.
    d. Estimate the annual operating cost of the stocked trout program including the cost-per fish.
    e. Identify annual maintenance costs and future needs for renovations at coldwater hatchery facilities and equipment and develop strategies to address costs and future needs.
    f. Identify opportunities to establish partnerships with interested parties, both private and public, to achieve objectives of the Stocked Trout Management Plan.
    g. Improve efficiency of hatchery production through research and development.

2. Publish an annual report detailing accomplishments and progress in achieving objectives of the Stocked Trout Management Plan by September 30 each year.
    a. Compile an annual stocking report detailing quantity and locations (county and/or water) of fish stocked for the period from October of the previous year through May.
    b. Compile an annual report detailing USFS forest stamp revenue projects on stocked trout waters located on USDA lands.
    c. In the case of production shortages, a reduction in stocking will be made on a percentage basis statewide.
    d. Report on progress made relative to specific plan objectives using multiple media outlets (e.g., VDGIF website, Outdoor Report, press releases, social media) to improve public awareness of the program and its progress.

ECOSYSTEM EFFECTS

Catchable stocked trout interact with other fish and aquatic organisms, including native species when introduced into streams or lakes, which may cause concerns about whether those interactions negatively affect the species already present. High angler use associated with some catchable trout stocking sites may harm riparian buffers, and/or increase erosion, littering, and sedimentation.

Value Statement

VDGIF should balance the benefits of stocked trout fishing with effects on the ecosystem. Virginia anglers should value wild and native trout in addition to stocked trout and the effects of trout stocking on native aquatic species should be considered. Virginia stocked trout anglers should value the protection of habitat and the conservation of quality trout habitat.

Goal Statement

Manage trout stocking to optimize recreational opportunities while minimizing adverse impacts on aquatic and surrounding habitats, wild and native trout, and other aquatic species. Manage habitat in stocked trout waters and preserve the aesthetics of the angling experience.

Objectives and Strategies

1. Develop strategies to minimize the effects of stocking on existing wild and native trout by January 1, 2017.
    a. Develop and publish the list of waters that contain existing native trout populations.
    b. Continue to monitor wild trout distribution through the Coldwater Streams Survey.
    c. No new native trout waters that have a Class I or II coldwater stream classification will be added to the Catchable Stocked Trout Program.
    d. When waters containing wild or native trout are stocked, VDGIF will consider a variety of strategies to minimize the effects of stocking on wild fish, including not stocking trout, the species of trout being stocked, location and timing of stocking, and the use of sterile fish.
    e. Continue research and development into fish production, focusing on the production of sterile trout.

2. Develop strategies to minimize the effects of stocking trout on existing/resident aquatic organisms in waters currently being stocked and when new waters are being proposed for addition to the stocked trout program by January 1, 2017.
    a. In an effort to minimize the effects of stocking trout on resident aquatic species, VDGIF will consider a variety of strategies, including not stocking trout, the species of trout being stocked, location and timing of stocking, and the use of sterile trout.
    b. When a new water is proposed to be added to the stocked trout program, VDGIF aquatic non-game/diversity biologists (including USFS staff if applicable) will be

consulted to determine if stocking hatchery trout poses a threat to any resident aquatic species.

3. Develop strategies to minimize the effects of stocking and angler use on sensitive riparian terrestrial species and habitat in waters currently being stocked and when new waters are being proposed for addition to the stocked trout program by January 1, 2017.
    a. In an effort to minimize the effects of stocking and angler use on resident riparian species or habitat, VDGIF will consider a variety of strategies, including not stocking trout, the species of trout being stocked, and the location and timing of stocking.
    b. When a new water is proposed to be added to the stocked trout program, VDGIF terrestrial non-game/diversity biologists (including USFS staff if applicable) will be consulted to determine if stocking hatchery trout (angler impacts) poses a threat to any resident riparian species or habitat.

4. Develop strategies to address habitat issues in stocked trout waters by January 1, 2021.
    a. Identify waters most-suited for collaborative management habitat issues.
    b. Develop a list of potential collaborators for management habitat issues, and establish formal relationships where feasible.
    c. Collaborate with USFS to best utilize forest stamp revenues.

RECREATIONAL OPPORTUNITIES

Stocked trout anglers differ in a number of characteristics, such as motivation for fishing, harvest practices, and type of equipment used. Anglers also seek different outcomes from their fishing experiences. Some anglers fish to get away from it all, while other anglers enjoy the social aspect of fishing with others. Some anglers release all or most of the fish they catch, while others look forward to keeping the trout they catch. Some anglers prefer to catch larger fish while others prefer to catch more fish, even if they are smaller. Since the "average angler" does not really exist, a "one-size-fits-all" management strategy satisfies few anglers. Thus, managers face the challenge of providing a wide variety of fishing opportunities to satisfy a diverse group of anglers.

Stocked trout generally create recreational fisheries in locations where natural fisheries do not exist. The demand for stocked trout fishing opportunities exceeds the current ability of VDGIF to supply the fish needed. Numerous streams and lakes in Virginia meet biological criteria to support stocked trout fisheries but are not currently stocked due to hatchery system limitations or concerns about access to the water. In addition, decisions about adding new waters to the stocked trout program must include consideration of labor force and funding to adequately enforce fishing regulations. Virginia's Conservation Police Officers frequently assist in stocking trout and their enforcement of trout fishing regulations is key to successful management of the resource.

Value Statement

The stocked program exists to create or enhance recreational fishing opportunities. These opportunities promote positive interactions with natural settings, relaxation, and social/family

experiences. Trout angling provides opportunities to harvest or catch-and-release fish, stimulates local economies and encourages tourism. VDGIF should consider the diverse preferences of anglers, including the balance between the number and size of fish stocked, in developing and selecting management strategies.

Goal Statement

Provide a diversity of stocked trout fishing experiences designed to meet diverse angler preferences and increase participation. Improve access to stocked trout waters for all anglers.

Objectives and Strategies

1. Expand stocked trout fishing opportunities designed to appeal to a variety of angler preferences including developing trophy trout fisheries, catch-and-release fishing, delayed harvest, urban waters, and youth fishing opportunities by July 1, 2016.
    a. Develop a list of potential waters suitable for alternative management strategies.
    b. Identify new management strategies, for example developing trophy trout fisheries.
    c. Expand existing alternative management programs, such as catch-and-release, delayed harvest, special regulation, urban waters, and youth fishing opportunities.
    d. Evaluate current hatchery production techniques to meet the demand for new management strategies including size and number of fish, timing, frequency of stocking, and opportunities for reallocation of stocked fish.

2. Identify 12 waters statewide to be managed with alternative management strategies (e.g., catch and release, delayed harvest, youth only, etc.) by October 1, 2017. This may include the conversion of current stocked waters to a new designation.
    a. Establish criteria to prioritize waters for inclusion in the alternative management strategies program (e.g., angler use, proximity to other stocked waters, geographic location, habitat).
    b. Conduct creel surveys on several waters selected for alternative management strategies to measure angler use and satisfaction.

3. Increase angler access to stocked trout waters where appropriate.
    a. Identify locations that need increased access or where no improvement to existing access is desired by January 1, 2018.
    b. Collaborate with partners and localities to develop facilities that improve access throughout the life of the plan.

VIRGINIA STOCKED TROUT MANAGEMENT PLAN (2016-2025)

EXECUTIVE SUMMARY

Trout fishing provides significant opportunities for outdoor recreation in Virginia. About one out of every seven hours spent fishing by Virginians is spent in pursuit of trout. Only Largemouth Bass and Smallmouth Bass receive more attention from anglers. Due to Virginia's warm climate, trout thrive year around only in higher-elevation mountain streams and in cold river tailwaters below a few large dams, such as the Jackson River and the Smith River. Consequently, 80% of trout fishing in Virginia depends upon the more than one million catchable-size trout stocked annually by Virginia Department of Game and Inland Fisheries (VDGIF). Approximately 100,000 anglers fish for these stocked trout in Virginia each year in more than 180 streams and lakes stocked by VDGIF.

Due to the importance of trout fishing in Virginia, and the significant investment required to operate and maintain hatcheries to produce catchable-sized trout (generally greater than seven inches, but frequently 10-12 inches), VDGIF developed the Virginia Stocked Trout Management Plan (hereafter referred to as the "Plan") to ensure effective and efficient management of trout fisheries over the next 10 years. Following a process similar to those used to develop statewide management plans for white-tailed deer, black bear, and wild turkey, the Virginia Stocked Trout Management Plan is designed to embody the interests of all Virginians who care about trout fishing (stakeholders). The planning process focused on balancing stakeholder values and sound biological information provided by VDGIF to produce a plan that is technically sound and publicly supported. The Plan includes values and goals identified by stakeholders to determine what Virginians want the stocked trout program to achieve and objectives and strategies, primarily developed by VDGIF technical staff, to describe how the goals and objectives can be achieved.

A stakeholder advisory committee, composed of 11 individuals representing the diverse interests of Virginians in management of stocked trout, worked closely with VDGIF and Virginia Tech personnel to develop the Plan. A technical committee that included VDGIF fisheries biologists, hatchery personnel and conservation police officers provided the technical aspects of the Plan. Virginia Tech personnel facilitated meetings of the stakeholder advisory and technical committees, and helped with editing and formatting the Plan.

The Plan contains two major sections: the technical section and the goals, objectives and strategies for management of stocked trout. The technical section describes the history of trout management in Virginia, how VDGIF approaches management of stocked trout, including production, facilities, species produced, and challenges faced in raising trout. The second section of the Plan lists the values and goals for management of stocked trout within five major issue areas (what stakeholders want to achieve and why) and the objectives and strategies for management of stocked trout (specific accomplishments that will allow VDGIF to measure success in achieving goals and how to approach achieving goals and objectives). The Plan is designed to provide a blueprint for future direction of stocked trout management rather than specific details of day-to-day operations.

The issue areas and associated goal statements are as follows:

- Announcement of stockings. Goal: Announce stockings using a variety of strategies (including prior announcement, post-stocking announcement, or no announcement) to provide equitable access to the resource and to address the diverse preferences of trout anglers. In addition to existing Heritage Day events, some stockings will be announced in advance to allow anglers to plan fishing trips to coincide with known stockings. Other stockings will be announced at the end of the day when stocking occurs to reduce crowding and ensure the safety of anglers and VDGIF personnel involved with stocking.

- Angler recruitment and retention. Goal: Inform and educate existing and potential future anglers, recruit younger and more diverse anglers, and retain those already engaged through new promotion efforts.

- Funding and administration. Goal: Maintain a productive and adequately funded stocked trout program, including investigation of alternative funding and resource mechanisms to meet current and anticipated future demands. Maintain an open and transparent decision-making process regarding stocked trout management.

- Ecosystem effects. Goal: Manage trout stocking to optimize recreational opportunities while minimizing adverse impacts on aquatic and surrounding habitats, wild and native trout and other aquatic species. Manage habitat in stocked trout waters and preserve the aesthetics of the angling experience.

- Recreational opportunities. Goal: Provide a diversity of stocked trout fishing experiences designed to meet diverse angler preferences, and increase participation. Improve access to stocked trout waters for all anglers

VDGIF shared the Plan with the public by posting it on the VDGIF web page in July 2015. Public comments were received online until September 15, 2015. Additional comments were received via letter to Virginia Tech personnel. Finally, Virginia Tech and VDGIF held nine public meetings across Virginia to present the Plan and receive comments. The VDGIF Technical Committee reviewed all public comments and revised the plan accordingly. A summary of the comments and VDGIF's response are included in an appendix at the end of the Plan.

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INTRODUCTION

The Virginia Department of Game and Inland Fisheries (VDGIF) stocks more than 1 million catchable-size trout annually to support trout fisheries in more than 180 streams and lakes. Approximately 100,000 anglers fish for these stocked trout in Virginia each year. Trout anglers have a wide variety of motives for fishing, and their divergent values and opinions about how stocked trout fisheries should be managed create complex challenges for VDGIF. The Virginia Stocked Trout Management Plan is designed to inform interested individuals about the Stocked Trout Program, including the resources and infrastructure needed to attain the goals, objectives, and strategies for managing stocked trout fisheries described in the Plan.

Trout have always been a favorite of Virginia anglers. In 2011, approximately 14% of all freshwater fishing effort in Virginia targeted trout (USFWS 2011). According to the agency's most recent statewide angler survey (2009), trout are the second most sought after group behind black bass. Stocked trout provide recreational fishing opportunities in many areas of Virginia where natural recreational fisheries are limited, and these fisheries make important economic contributions to localities where they are created.

VDGIF, under the direction of a Governor-appointed Board of Directors, is charged specifically by the General Assembly with management of the state's freshwater fisheries resources. The Code of Virginia expresses many legal mandates for the Board and VDGIF, including management of wildlife species (§29.1-103), public education (§29.1-109), law enforcement (§29.1-109), and regulations (§29.1-501). To help clarify and interpret the role of VDGIF in managing wildlife in Virginia, the Board of Directors has adopted the following Agency mission statement:

> *To manage Virginia's wildlife and inland fish to maintain optimum populations of all species to serve the needs of the Commonwealth; To provide opportunity for all to enjoy wildlife, inland fish, boating and related outdoor recreation and to work diligently to safeguard the rights of the people to hunt, fish, and harvest game as provided for in the Constitution of Virginia; To promote safety for persons and property in connection with boating, hunting, and fishing; To provide educational outreach programs and materials that foster an awareness of and appreciation for Virginia's fish and wildlife resources, their habitats, and hunting, fishing, and boating opportunities.*

What is the Virginia Stocked Trout Management Plan?

The Virginia Stocked Trout Management Plan is the first comprehensive plan developed for stocked trout in Virginia. It summarizes the history of trout stocking and fishing in Virginia and provides a blueprint for future management directions. The plan establishes a framework of what needs to be done for stocked trout management, how it should be done, and when it should be done through 2025. By clarifying management goals and objectives of VDGIF relating to stocked trout, the Plan will help Board members, VDGIF administrators, VDGIF staff, and the public to effectively address stocked trout management issues. As the basis for guiding stocked

trout management activities, decisions, and projects, the Plan will also serve to inform the General Assembly and the public of what VDGIF hopes to accomplish. The Plan is a strategic plan that is intended to provide overall directions, goals, and objectives for the stocked trout program (e.g., to increase youth participation in stocked trout fishing). As such, it is not an operational plan where specific details of potential strategies to carryout objectives are exactly described (e.g., detailed descriptions of programs designed to increase youth participation).

Virginia is blessed with significant wild trout resources. There are over 2,300 miles of coldwater streams harboring wild trout populations in the Commonwealth. The Virginia Stocked Trout Management Plan specifically addresses the management of only hatchery-reared trout; there are separate issues unique to wild trout management that do not pertain to stocking hatchery–reared trout. VDGIF is committed to the protection and enhancement of wild trout populations and plans to formalize management guidelines specifically for wild trout resources in the near future.

How the Plan was Developed?

Following the philosophy that guided the development of Virginia's Deer, Bear, and Turkey Management Plans, the Virginia Stocked Trout Management Plan was developed to represent the interests of all Virginians interested in stocked trout management. VDGIF collaborated with Virginia Tech's Department of Fish and Wildlife Conservation to implement the public and technical processes for plan development. During the planning process, public stakeholders focused on the values that are important in establishing goals for management of stocked trout, whereas fisheries management professionals focused on the technical aspects of how to attain the goals of stocked trout management.

To identify important issues in stocked trout management, ten public meetings were conducted throughout Virginia to begin the planning process. Approximately 150 Virginians attended the public meetings from October 2013 through February 2014. The issues identified by public meeting participants provided a starting point for Stakeholder Advisory Committee (SAC) discussions.

The SAC, composed of 11 Virginia citizens representing the diverse interests in stocked trout fishing (including key stakeholder groups, Appendix A), was tasked with identifying important values related to stocked trout fishing and developing draft goals to address those values. The SAC members represented various interests from across the western part of the state, including public landowners, sporting interests, non-consumptive interests, and conservationists. The SAC met four times between December 2014 and May 2015 to assist VDGIF in developing the plan.

A Stocked Trout Technical Advisory Committee (Technical Committee), composed of VDGIF biologists, hatchery staff, and conservation police officers with expertise in stocked trout management, provided scientific information and technical feedback to the SAC (Appendix B). Specifically, the Technical Committee drafted and presented the technical background information on stocked trout production and management in Virginia, refined the values and goals developed by the SAC, identified the objectives and potential strategies to achieve the

SAC's draft goals, and drafted the final plan (e.g., writing, compiling technical sections with SAC input).

Faculty and graduate students from Virginia Tech's Department of Fish and Wildlife Conservation provided the overall guidance and administrative support for the planning approach and processes. Virginia Tech personnel facilitated planning meetings (e.g., public meetings, meetings of the SAC and Technical Committee, regional public input) and also provided other administrative and logistical support (e.g., drafted meeting notes, communication and mailings, fiscal needs).

Plan Format

The Plan includes sections relating to the management of stocked trout, angler surveys conducted by Virginia Tech from 2013–2015, and hatchery production of stocked trout in Virginia. Within the context of VDGIF's mission statement, the SAC described five major issues related to management of stocked trout and developed goals for each. The major issue areas included stocking announcements, recruitment and retention of trout anglers, funding and administration for the stocked trout program, ecosystem effects of stocking trout, and recreational opportunities. The Plan lists specific objectives designed to attain the goals, and suggests strategies clarifying how each objective might be achieved.

Interim Changes to the Plan

The Plan is designed to provide guidance and priorities to help manage Virginia's stocked trout program through 2025. Issues and public values related to stocked trout fishing should not change dramatically over the 10-year period. However, a plan should be a dynamic and flexible tool that remains responsive to changing social, environmental, technical, and administrative conditions. To keep the Plan relevant and responsive to the programmatic goal directions provided by the public, specific objectives and strategies may be added, deleted, or amended by VDGIF as circumstances demand. As adaptive changes in management approaches (i.e., objectives) are necessary, VDGIF will submit interim updates to the SAC for review before implementing changes; updated objectives will be provided as addenda to the Plan on VDGIF's website.

Glossary

- *Catchable-Size Stocked Trout* – Trout stocked by VDGIF that are greater than seven inches in length.
- *Designated Stocked Trout Water* – Water body where catchable-size trout are stocked by VDGIF, and a Virginia Trout License is required 1 October through 15 June.
- *Native Trout* – Brook Trout that are hatched and reared in a wild environment through natural reproduction. Brook Trout are the only native trout to Virginia; therefore wild Brook Trout is synonymous with native trout.

- *Put and Take* – Trout management program where catchable-size trout can be harvested immediately following stocking.
- *Southern Appalachian Brook Trout* – A specific strain of Brook Trout indigenous to watersheds in southwestern Virginia exhibiting unique genetic characteristics.
- *Sterile Trout* – Trout that are unable to reproduce under any conditions. Triploids are an example of sterile trout.
- *Stocked Trout* – Trout hatched from eggs and / or reared in captivity (hatchery or fish culture station) and then released into a wild environment.
- *Wild Trout* – Trout that are hatched and reared in a wild environment through natural reproduction. Wild trout in Virginia include naturally reproducing Brook, Brown, and Rainbow Trout.

Acknowledgements

The thoughtful involvement of many Virginia stakeholders at public meetings and through written comments was crucial to the successful representation of the stocked trout-related interests and public values of all citizens. The major commitment of time and expense, unselfish dedication, and enthusiasm provided by members of the SAC not only made a substantial difference in the quality of the final plan, but also enriched the process throughout. We greatly appreciate their effort and dedication. While also grasping technical realities of stocked trout management, it was no small task to conscientiously struggle with balancing the varied public desires.

The Technical Committee reviewed and summarized technical information about Virginia's stocked trout management program. Technical research and writing for the Plan primarily was provided by Steve Reeser (VDGIF), Nate Wilke (VDGIF), Dr. Steve McMullin (Virginia Tech), Vic DiCenzo (Virginia Tech), and Amanda Hyman (Virginia Tech).

We also greatly appreciate the planning-process support provided by Virginia Tech's Department of Fish and Wildlife Conservation. Dr. Steve McMullin, Vic DiCenzo, and Amanda Hyman all played key roles to ensure the successful and timely completion of the entire planning effort. Through processes that integrated public values with professional technical knowledge, Dr. McMullin's vision has guided numerous VDGIF management planning efforts since 1999.

PROGRAM DESCRIPTION

MANAGEMENT

There is no such person as an "average" stocked trout angler in Virginia. If you asked ten different stocked trout anglers what they would like to see in VDGIF's Stocked Trout Program, you would most likely get a wide variety of answers. Stocking hatchery-reared trout into a stream or small impoundment is completely artificial, and therefore can be manipulated in many ways. Where and when trout are stocked, the size and number of fish stocked, and how and when anglers are informed of trout stocking are management options that VDGIF utilizes in its stocked trout program. VDGIF has been responsive to the requests of Virginia's stocked trout anglers. Over the past three decades, the Department has made changes to the general put-and-take program and initiated several programs to meet the social and demographic needs of the stocked trout angling community.

History of Trout Stocking in Virginia

By the early 20th century, stream and river ecosystems in the eastern U.S. had become severely degraded. Extensive logging, mining, dam construction, and other human impacts impaired water quality and stream bottom conditions to the point that trout could no longer reproduce or even exist in many waters. Outstanding recreational fisheries declined or vanished. Early pioneers in fish and wildlife conservation focused on stocking hatchery fish to rebuild wild populations and in many cases to provide "instant" recreation. One of the most successfully propagated fishes proved to be trout. Trout were raised to adult size on artificial feed more easily than other species. Anglers embraced the concept of stocking fish of legal harvest size. For these reasons, hatchery trout were stocked in coldwater streams to augment fisheries where native trout populations had declined or disappeared entirely. They were also introduced to water bodies where they had not previously existed, such as warmwater environments where they could survive only during colder months.

VDGIF first stocked hatchery rainbow and brook trout in Virginia streams in the late 1920s. Some of the first streams to be stocked were located in the newly formed Shenandoah National Park. Initially, VDGIF operated two trout hatcheries: Marion Hatchery (Smyth County) was VDGIF's first trout hatchery opening in 1930, and Montebello Hatchery (Nelson County) began operating in 1931. Coursey Springs Fish Culture Station in Bath County was added to VDGIF's hatchery system in 1964. The U.S. Fish and Wildlife Service began operating federal trout hatcheries at Paint Bank (Craig County) and Wytheville (Wythe County) in the 1960s. While under federal management, trout from these two facilities were stocked only in waters located within the George Washington and Jefferson National Forests. Both Paint Bank and Wytheville hatcheries were acquired by VDGIF in the 1980s. At the request of anglers and to provide more diverse fisheries, VDGIF began stocking Brown Trout in 1961.

In 1958, Virginia became one of the first states to require a separate license to fish for stocked trout. The revenue from the trout license was dedicated solely toward production of hatchery trout. Historically, trout were stocked only where the public had fishing access, accessibility for stocking was adequate, and water quality and temperature were suitable for trout throughout most of the year. A signed agreement between private landowners and VDGIF to allow public access was required before trout were stocked in waters on private lands. Larger impoundments were excluded from the program because VDGIF hatcheries could not produce enough trout to sustain a desirable fishery. In the early years of the program, stocking focused mostly on streams, with about 130-150 waters receiving trout. The number of waters stocked by VDGIF peaked in the 1970s at close to 240, located across 40 counties primarily in the western and southwestern portion of the Commonwealth.

A statewide inventory of coldwater streams was conducted by VDGIF in the late 1970s. The purpose of this project was to identify and classify all wild trout populations. Many streams being stocked with hatchery trout were found to harbor exceptional wild trout populations. For this reason, stocking trout was discontinued in many streams in the early 1980s. More waters were added when the Delayed Harvest and Urban Trout programs were introduced in the 1990s. The number of waters stocked by the Department has ranged from 175-195 over the last three decades.

Trout Fishing Season

Virginia's trout season had an "Opening Day" from the 1930s until 1995. Opening Day fluctuated between the last Saturday in March and the first Saturday in April with fishing beginning at a designated time in the morning. Trout season ran from opening day to December 31 (the majority of stocked trout waters would not support trout from June-September due to high water temperatures). Stocked trout waters were closed to fishing up to three months before opening day, and trout were stocked during this "pre-season" period. Historically, most waters received three stockings (one pre-season, and two in-season). Additional two-week, in-season closures of stocked waters preceded post-opening day, in-season stockings. Different regions of western Virginia were closed to trout fishing for in-season stockings at different times so that some trout waters were always open to fishing. Select waters were stocked as late as June and some waters received a single fall stocking in October. Statewide surveys of trout license buyers in 1986 and 1993 indicated support for transitioning to a year-round trout season increased from

58% to 75%. Citing the support for a year-round season, opening day was discontinued in 1996. Currently, trout stocking occurs from October 1 through May 31, and there is no closed season.

Regulations

In the early years of the program, daily creel limits were fairly liberal, allowing anglers to harvest up to 12 trout. Over time, the creel limit was reduced incrementally to the current limit of six trout per day. To provide equity and ensure a sporting ethic, anglers are only permitted to fish with one rod and during daylight hours in stocked trout waters.

Law Enforcement

As the title of "Game Warden" evolved to "Conservation Police Officer (CPO)," so did the diversity of the Stocked Trout Program. Prior to 1996 when trout were stocked prior to opening day, CPOs spent day and night patrolling streams and lakes ensuring that poachers would not steal the opportunity of the ethical fishermen who waited with family and friends for this special day. This law enforcement effort was significant, as many of these waters were stocked and then closed to angling for several weeks. During the "Opening Day" era, special operations on trout streams were conducted by law enforcement officials, bringing CPOs from eastern Virginia to the western counties. One significant hurdle for law enforcement came with the Fair Labor Standards Act . This prevented CPOs from working extended hours that they were not compensated for and made them unavailable except during approved overtime.

CPOs deal with traffic issues as some anglers followed the trout truck from hatcheries to stocking locations. While the need to watch streams in the old pre-season period no longer exists, CPOs currently assist with stocking events, provide traffic control, gather information for biologists, and enforce laws and regulations. The most frequent violations on trout streams are fishing after obtaining the daily limit, exceeding creel limits, snagging, littering, and fishing without proper licenses. CPOs' contact with anglers ensures they are properly licensed and obey creel and size limits. These contacts vary from a thank you to a warning, summons, or arrest. CPOs are the most noticeable field representatives for VDGIF and thus have extensive contact with trout anglers. Anglers are quick to let the CPOs know how they feel about the quality of VDGIF's trout stocking program.

Trends in Participation

Prior to 1996, when "Opening Day" was preceded by a season closure and a large pre-season stocking emphasis, large numbers of anglers fished for stocked trout. Conflicts between anglers and landowners over the years led to a decline in private waters available for public-stocked-trout fishing. In order to address issues related to large opening day crowds (e.g., litter, traffic congestion), the trout program shifted to a year- round season with the hope of reducing crowding on these waters and better utilizing limited hatchery space. Trout-angler surveys (2001 and 2008) conducted since the creation of the year-round season have found close to 80% of

trout anglers prefer not having an opening day and approximately 70% of surveyed anglers rate the current program as Excellent/Good.

Sales of annual trout licenses declined from over 100,000 per year in the mid-1990s to fewer than 60,000 in recent years. When lifetime fishing license sales are included, the total number of licensed trout anglers appears to have remained relatively constant since the initial peak of sales (Figure 1). However, DGIF has no way to determine how many lifetime license holders continue to fish for stocked trout.

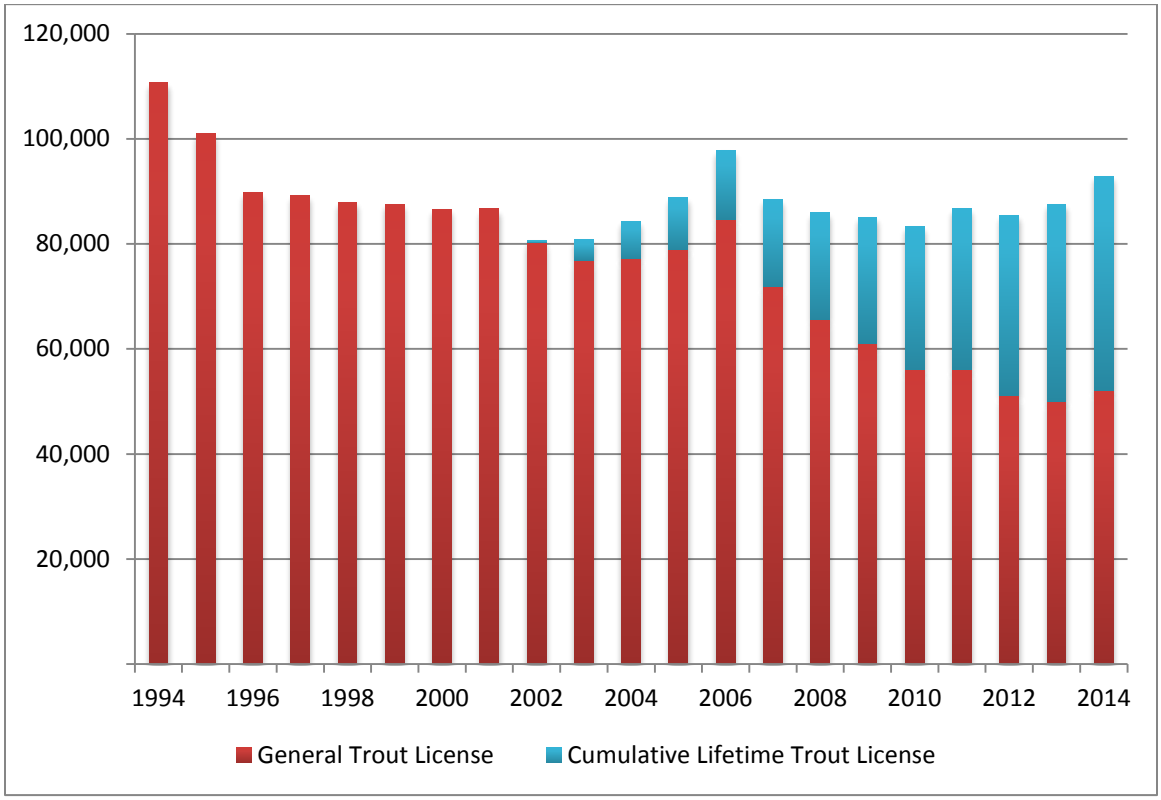


Figure 1. Trout license sales combined with Lifetime Fishing License Sales

Funding

Virginia's regulations require anglers fishing for stocked trout in designated stocked trout waters to purchase a trout license in addition to a regular freshwater fishing license. The intent of the separate trout license was to financially support hatchery trout production (essentially considered a "pay to participate" program). While all revenue from trout license sales goes directly toward catchable trout production, these revenues alone do not support the entire program. However, 64% of trout anglers surveyed in 2008 stated that they purchased a basic freshwater fishing license primarily to fish for trout. If those additional basic freshwater fishing license sales are added to trout license sales, the funds generated nearly meet the needs of the hatchery system, which in 2014 amounted to approximately $2.4 million. This figure does not

include costs associated with VDGIF's management staff or law enforcement activities associated with the stocked trout program.

Catchable Trout (Designated Stocked Trout Waters)

The catchable trout-stocking program is the most popular component of VDGIF's trout program and accounts for approximately 80% of trout angling effort in Virginia. Roughly 1.2 million catchable trout (600,000 pounds) are stocked into 135 streams and 32 ponds and lakes (204 different stream sections and impoundments) for the 100,000 anglers that pursue them (Figure 2). "Designated Stocked Trout Waters" include waters stocked with catchable-size trout and are listed by the agency Director in the Annual Trout Stocking Plan. Stocked catchable-size trout support general Put-and-Take, Delayed Harvest, Urban, Fee Area, and Trout Heritage fisheries. These waters are considered designated stocked trout waters, which only require a trout license from October 1 through June 15. All catchable-size stocked trout are at least seven inches in length when stocked. However, VDGIF attempts to produce fish with an average length of 10 ½ inch (0.45 lb.) for stocking these waters..

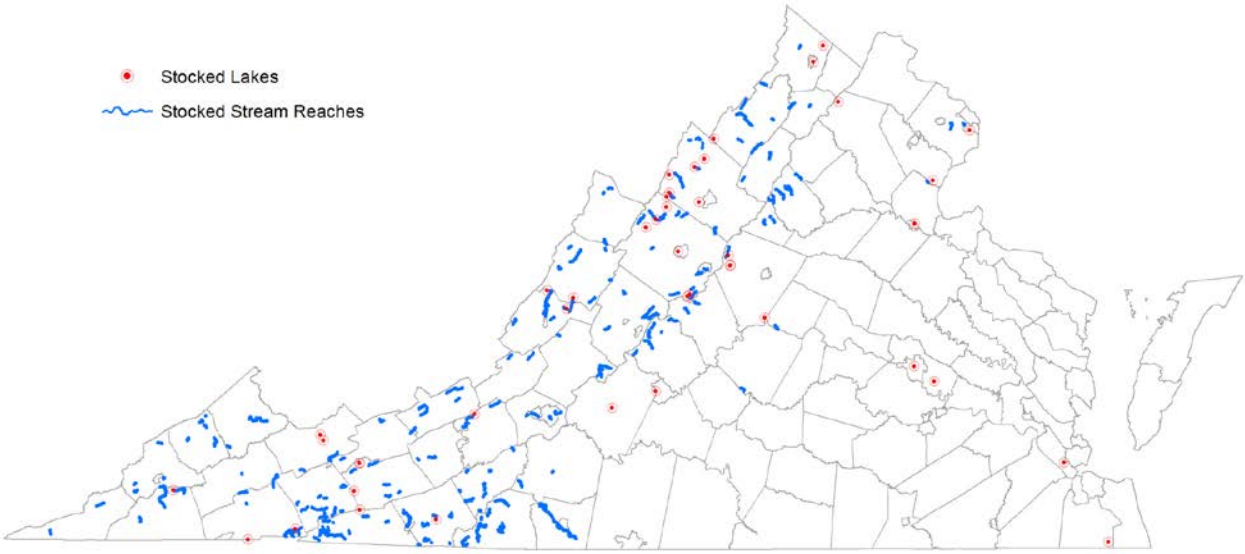


Figure 2. Location of waters listed in the 2015 Catchable Trout Stocking Plan.

General Put-and-Take Waters

Put-and-take stocked trout fishing draws the most interest and attention from anglers probably because of the availability of catchable-size trout, liberal gear restrictions, and ease of capture. Eighty-nine percent of the waters stocked with catchable-size trout currently fall under the put-and-take category.

Delayed Harvest Waters

The delayed harvest program was launched in 1989. The intent of this program is to incorporate aspects of both catch-and-release and put-and-take trout fishing. Streams in this program are generally large and provide good trout habitat. However, water temperature often limits trout survival through the summer months. Catchable-size trout are stocked typically once in fall, winter, and spring. From October 1 through the following May 31, only artificial lures may be used, and all fish must be released unharmed. From June 1 through September 30, general trout regulations are in effect, and trout may be harvested. A trout license is required to fish these waters from October 1 through June 15. There are currently 14 streams in the delayed harvest program (Figure 3).

Urban Waters

In 1993, VDGIF initiated its Urban Fishing Program at three ponds in urban and suburban areas. These prototypes evolved into seven permanent sites across the Commonwealth (Figure 3) over the following 15 years: Cook Lake (Alexandria), Locust Shade Park Lake (Prince William), Dorey Park Lake (Henrico), Shield Lake (Richmond), Lake Biggins (Newport News), Northwest River Park Lake (Chesapeake), and the newest, Old Cossey Pond (Fredericksburg). Due to site logistics and issues, waters may be added or dropped from the program from time to time. The sites share common components – they are small ponds managed by their localities (Parks and Recreation Departments) and lie within the "urban crescent," which extends south from the Washington, DC metro area through Richmond then east to Virginia Beach.

The motivation for this program is to bring angling to densely populated areas, and give urban residents an opportunity they may not otherwise have. Currently, all urban fishing program sites are stocked with catchable Rainbow and Brown Trout five times per season (November – April) at an annual rate of approximately 1,200 fish per acre. There were originally ten trout stockings during the season (one stocking about every 2.5 weeks which was determined to be the appropriate frequency as a compromise between attaining target catch rate of one fish per hour and hatchery-hauling constraints). Considering available resources, stockings were reduced years ago. Currently, there are five trout stockings per season (more fish per stocking, but less frequent stocking events). Urban waters that can accommodate catfish are also stocked with large Channel Catfish during warmer months when water temperatures are too high for trout.

The Urban Trout Program generated heavy fishing participation, estimated at 12,500 angling hours per acre annually in the mid-2000s with 36 acres of water in the program. Average catch rate was around 0.5 fish per hour, which, for these fisheries, is considered high relative to national catch estimates due to intense fishing pressure. The Urban Trout Program may serve to attract new anglers, as past surveys indicated 5% of users had fished for less than one year, and 19% had fished for less than five years. Juvenile usage comprised 15-20% of the total with a much of the remainder made up of senior citizens.

Fee-Fishing Areas

The fee fishing, or "pay-as-you-go" trout program, began in 1964 when the Clinch Mountain Fee Fishing Area opened. Today, VDGIF manages three fee-fishing areas located in western Virginia: Clinch Mountain, Crooked Creek, and the Douthat Lake Fee Fishing Areas (Figure 3). The primary goal of the fee-fishing program was to provide inexpensive trout fishing opportunities for vacationers, both resident and non-resident. Today, these areas also provide anglers an opportunity to experience a more traditional "opening day" as well as to fish for frequently stocked trout throughout the season. During the fee season, anglers may fish one of the fee areas with a basic freshwater fishing license and a daily fishing permit ($8), which is required of all anglers over the age of 13. Children 12 and under may fish without a permit as long as they are accompanied by a licensed adult, and the combined creel does not exceed that of the adult (6 trout, 7" minimum length). Revenue generated from the daily permit sales are used to offset the cost of trout production and stocking at the fee areas. Except for opening day at these fee-fishing areas, which begins at 9:00 am on the first Saturday in April, fishing begins at 5:00 am and ends one hour after sunset. Fee areas are closed to fishing five days prior to opening day. Outside of the fee season, these areas revert to designated stocked trout waters, and a trout license is required instead of a daily permit. A daily permit is required to fish the Clinch Mountain and Crooked Creek fee areas from the first Saturday in April through September 30. Douthat Lake Fee Fishing Area requires a daily permit from the first Saturday in April through June 15 and from September 15 through October 31.

Clinch Mountain Fee Fishing Area is located in southwestern Virginia about 7 miles west of Saltville. The area consists of approximately 7 miles of Big Tumbling Creek and its two major tributaries, Briar Cove Creek and Laurel Bed Creek. Trout are stocked four times a week during the fee season. Outside of the fee season, the area is managed as designated stocked trout waters to the gate at the foot of the mountain.

Crooked Creek Fee Fishing Area is located in Carroll County about 5 miles east of Galax. This area consists of a 5-mile stocked section and a 2-mile section managed as a wild trout fishery. Trout are stocked four times a week during the fee season.

Douthat Lake Fee Fishing Area is located in Bath County and lies within Douthat State Park. This area includes Douthat State Park Lake (60 acres) and 4 miles of Wilson Creek. Trout are stocked twice per week throughout the fee period. Outside of the fee season, the area is managed as designated stocked trout waters.

Anglers who visited VDGIF's fee areas purchased 17,379 permits in 2014. Participation declined from the 1970s when 37,022 permits were sold at the Clinch Mountain Fee Fishing Area alone in 1973. Part of the decline in permit sales can be attributed to the substantial increase in trout fishing opportunities, which began in 1983 through the elimination of the May closure and increased numbers of in-season trout stocking on general stocked waters. Additionally, the cost of the daily permit increased from $1 to $8. Although the number of annual permit sales declined, the program remains popular with anglers and provides a quality experience for catchable stocked trout, particularly through the summer after stocking has ceased on the general designated trout waters.

Trout Heritage Day

Heritage Day began in 2001, to provide a similar experience to opening day for anglers who enjoyed the excitement and social aspect of the opening day of trout season. Select waters are stocked prior to or on the first Saturday in April to create an announced stocking event. These streams and impoundments are closed to fishing the Friday prior to the first Saturday in April for stocking, and reopen to fishing the following day at 9:00 am. The stocking for Heritage Day counts as one of the standard allocated stockings for that water. There were 20 Trout Heritage waters in 2015 (Figure 3).

Fingerling Stocking

The fingerling-stocking program is designed to take advantage of the natural potential of deep reservoirs, coldwater tailwaters, and spring-fed streams to produce quality trout fishing opportunities where wild trout fisheries are not possible due to the lack of natural reproduction. Because summer water temperatures are usually a limiting factor to trout survival, under this program a stream or reservoir must provide suitable, year-round water temperatures, have good habitat, and be productive enough to provide adequate food for good growth. VDGIF utilizes Brook, Rainbow, and Brown Trout in the fingerling program. The species utilized depends upon habitat conditions of the receiving water and specific management objectives. Suitable waters are stocked once annually with fingerling or sub-catchable (smaller than the legal size limit of 7") trout, and often length limits and angler gear restrictions are imposed to protect these sub-legal size fish until they reach harvestable size. In areas receiving heavy fishing pressure, special gear restrictions are often necessary to avoid high hooking mortality rates. These fish will often be caught several times before they eventually reach harvestable size. The program can only be successful if hooking mortality remains low. During this time, trout lose most of their hatchery characteristics, both in appearance and behavior, and create a fishery that approaches a wild one in terms of fishing experience. Some of Virginia's most exciting trout fishing opportunities can be found within the fingerling-stocking program. By stocking small fish once a year, a high-quality fishery can be developed at a fraction of the cost of the more common put-and-take program. During the 2013-14 stocking season VDGIF stocked approximately 305,000 fingerling trout in different stream reaches and impoundments (Figure 3).

*Some stream sections that receive fingerling trout are located entirely on private lands, and VDGIF manages these fisheries in cooperation with the private landowners using a permit system. A free permit is required to fish these streams and can be obtained from VDGIF's website: https://www3.dgif.virginia.gov/troutpermits/. In 2014, approximately 5,600 permits were issued for the three streams in this program (Mossy Creek, Buffalo Creek, and South River).

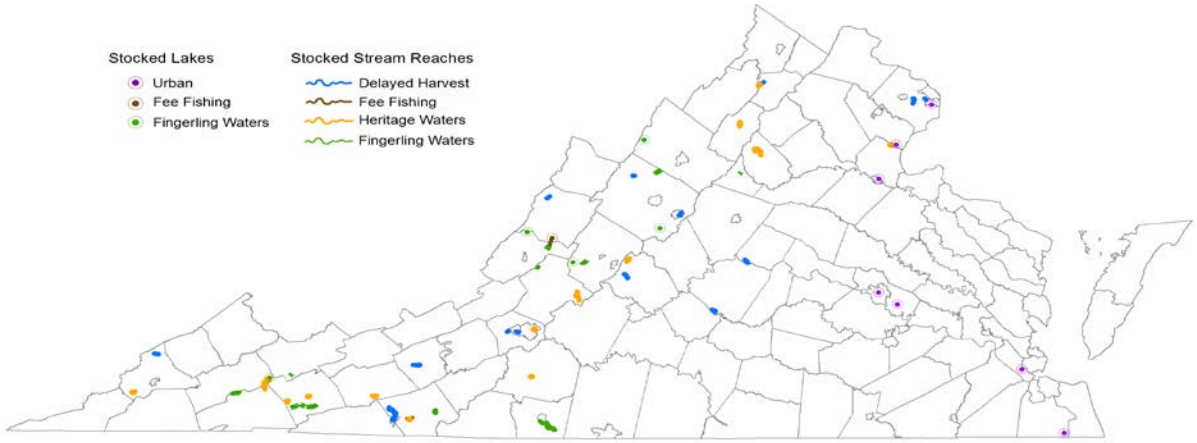


Figure 3. Location of Delayed Harvest, Fee Fishing, Urban, and Trout Heritage, and Fingerling stocked waters.

Kids Fishing Events

VDGIF provides stocked trout for children-only fishing events. This program is extremely popular, as thousands of children participate in these events. Events are held on both streams and impoundments, and must occur on VDGIF-designated stocked trout waters during the stocking season (October 1 – May 31). The stocking for the event counts as one of the standard allocated stockings for that particular water. VDGIF only provides trout for one event per water body per year. Waters scheduled for the event may be closed by the managing sponsor or landowner for one day prior to the event. Events can only be for one day and must conclude no later than 4:00 pm, at which time the designated stocked water opens to all licensed anglers. VDGIF stocked trout for 29 children's fishing events in 2015. Currently all children-only events are held on weekend days.

How is the amount of trout stocked determined?

In the "Opening Day" era, trout stocking densities were determined primarily by fishing pressure. Biologists and CPOs counted anglers on designated stocked trout waters on Opening Day, and those numbers were used to generate the stocking allocation for those waters the following year. Depending on the water being stocked, 3-4 trout were stocked per angler. Currently, biologists use a formula where stream width, fishing pressure, physical habitat, food availability, and stocking distribution are rated to determine the amount of trout to be stocked.

STREAMS:	**WEIGHTING FACTOR**
A. Stream Width	
15'	1
15-30'	2

30-50’	3
50’+	4

B. Fishing Pressure

Light	0
Moderate	1
Heavy	2

C. Physical Habitat

Poor/fair: (< 20% pools, shallow (<3’) Limited cover, could have frequent low Flow problems)	0
Good: (20-35% pools – some with good Depth (>3’) and cover – good flow except During severe drought)	1
Excellent: (>35% pools – most with good Depth (>3’) and abundant overhead cover- Very dependable flow)	2

D. Food Availability/Holdover potential

Poor: (very sterile, often acidic, little food, instream cover very limited, water quality or temperature problems)	0
Average: (adequate food, water quality and cover for seasonal holdover)	1
Excellent: (abundance of food, good cover, summer holdover potential – often spring-fed)	2

E. Distribution Potential

Limited: (few sites available (>1/4 mi between stocking points)	0
Adequate: (stocking sites limited, but at least 1 every ¼ mi)	1
Excellent: (can stock at almost any point)	2

How to determine number of fish stock per mile per stocking for streams: **

- add all weighting factors
- multiply weighting factor by 50 for total trout per mile
- multiply by total miles of available stream for per stocking allocation
- on approved urban streams, multiply weighting factor by 75***

IMPOUNDMENTS:

A. Size	**Standard Stocking Rate**
< 5 acres	175/acre
6-10 acres	100/acre
10-25 acres	50/acre
> 25 acres	40/acre

B. Fishing Pressure	**Weighting Factor**
Light	0.5
Moderate	0.75
Heavy	1.0

Multiply the fishing pressure factor by the recommended stocking rate to get number per acre for each stocking.

Currently, VDGIF stocks trout by pounds rather than number. The amount of pounds is converted from the number allocated for each site. Thus, the number of fish stocked may fluctuate among stockings at each site based on the average size of individual fish.

How is the frequency of stocking determined?

General put-and-take stocked trout waters are classified as A, B, or C. This classification determines how many times the water will be stocked and within what time period.

Category A: Waters have consistently suitable flow and temperature conditions for survival of trout from October 1 through June 15. The waters provide good depth, cover and food for survival of holdover-stocked trout. Streams where fall stocking is frequently delayed or canceled due to low flow conditions generally are not considered Category A waters. Stocked eight times between October 1 and May 30.

Category B: Waters have consistently suitable conditions for holding stocked trout from November 1 through May 31. Waters generally provide good size, depth and cover to provide a quality angling experience under normal flow conditions. Waters provide adequate conditions for survival of stocked trout through the stocking season. Stocked five times between October 1 and May 15.

Category C: Generally very small streams or ponds that provide limited fishing opportunity and are only suitable for holding trout during very good flow conditions. Most of these waters are small, publicly owned streams that have been stocked historically and remain in the program. Stocked three times between October 1 and April 30.

Delayed Harvest waters are stocked three times between October 1 and May 30.
Urban Trout Waters are stocked five times between November 1 and April 15.

How is the species of trout stocked determined?

Rainbow Trout:

- used in all lake and stream stockings, except where special conditions (see below) or specific management plans warrant other species.

Brown Trout:

- used only in stream situations or in two-story reservoirs
- used only when physical habitat and food availability is adequate
- should not be stocked where they could establish a wild population within a native trout drainage.
- will not be stocked where VDGIF aquatic biologists determine they would negatively impact populations of threatened or endangered species.

Brook Trout:

- required where VDGIF stocks trout in areas with marginal native trout populations
- recommended in lakes that are fed by streams that contain native trout populations.
- recommended in streams with tributaries that contain native trout populations.
- may be substituted for Rainbow Trout in most other situations

Sterile Trout

Normal trout are “diploid”, meaning each individual fish has two pairs of chromosomes. Triploid trout have three pairs of chromosomes and are essentially sterile (cannot reproduce). How and where VDGIF produces triploid trout is discussed in the “Production” section of this document.

Goal: to stock triploid trout in waters where the genetic purity of native trout is to be protected, or where stocked trout natural reproduction is not desired.

Objectives: Annually produce adequate numbers of triploid Rainbow, Brook and Brown Trout to meet the Department's needs.

Use of Triploid Trout
Priority:

- Watersheds with known populations of pure Southern Appalachian Brook Trout
- Streams originating within the boundaries of Shenandoah National Park.
- Waters with native trout population present.*
- Fingerlings in the put-n-grow program (streams and reservoirs).

*Triploid Rainbow or Brown Trout can be stocked into waters designated to receive only brook trout when diploid brook trout are not available.

When all triploid allocation requests have been filled, surplus triploid trout can be substituted for diploid trout in any water where VDGIF is stocking trout.

How are trout stockings advertised to the public?

The majority of stockings on general put and take waters are announced each day at approximately 4:00 pm on VDGIF's website http://www.dgif.virginia.gov/fishing/stock/ and on the Trout Stocking Line 434-525-FISH (3474). Waters stocked on Saturday may not be listed until the following Monday.

Exceptions include: 1) waters in the Trout Heritage Program, which are pre-announced to be stocked for the first Saturday in April, 2) waters stocked for children-only fishing events, which are pre-announced, 3) The second and third stocking on Delayed Harvest waters, and on select special regulation waters that receive catchable size trout, which are unannounced.

What waters are stocked, and where are they located?

An updated list of Designated Stocked Trout Waters is located in the Virginia Freshwater Fishing and Watercraft Owner's Guide and on VDGIF's website. An interactive mapping application for stocked trout waters, special regulation waters, and wild trout waters is available by clicking on the link to stocked trout interactive map on VDGIF's website: http://www.dgif.virginia.gov/fishing/trout/. Maps identifying locations of stocked trout waters may also be published in the Department's magazine *Virginia Wildlife*.

Adding New Waters to the Catchable Trout Program

Ideal candidate waters for the Catchable Trout Stocking Program would be considered transition habitats between coldwater and warmwater communities. These waters, under natural conditions, provide limited recreational fishing but can provide excellent trout fishing opportunities on at least a seasonal basis. The following criteria should be used when adding waters to this program:

Habitat/Native Fauna:

- Streams should not currently support a significant wild trout fishery or the potential for establishment of one. No Class I or Class II wild trout stream will be considered for the program, and Class III and Class IV waters will only be considered after careful evaluation of current angling potential and potential impact of stocking on resident populations.
- If waters are within the known range of Southern Appalachian Brook Trout, additional analysis of Brook Trout populations within the drainage may be necessary. Only sterile (triploid) trout should be stocked in watersheds known to contain Southern Appalachian Brook Trout.
- Waters to be considered should not support a significant warmwater population of gamefish.
- If waters contain a federal or state listed threatened or endangered species, an evaluation, in consultation with Bureau aquatic non-game biologists, must be made to determine potential effects on the species or its habitat. If it is determined that stocking may significantly affect that species, the water should not be added to the program.
- Only waters that will rate at least a Category B Catchable Trout fishery should be added. No lake over 20 acres in size should be considered for catchable trout stocking and streams should be between 15 and 75 feet in width.
- Streams should have at least 20% pool habitat with average pool depths of 3 feet or greater and should have adequate cover to retain trout in the stocked section.
- All waters should be capable of sustaining trout through June 30th and have adequate water quality that will not stress trout or cause substantial disease or mortality.
- Allocations for these waters must follow the approved trout stocking allocation guidelines

Public Access:

- The area must be accessible to the general public without payment of a fee for fishing. VDGIF will consider areas that charge a daily use fee to all users as long as the fee is not designed for profit but is used for maintenance of the facilities and area. The amount of the fee should be considered to determine if it is reasonable and that anglers would be willing to pay in order to access the area.
- The area must have adequate parking to avoid causing unsafe traffic hazards and must be open to anglers year-round.
- Streams should have a least one continuous mile of open water. VDGIF's general guideline for stocking streams is to not stock within 1/4 mile of posted property. If public water or natural barriers to fish migration are located at either end of a proposed section of water, the minimum length can be reduced accordingly. Posting of a very short section of water or posting of one side of the stream does not restrict consideration of a stream for the program as long as anglers can easily access the remaining section of stream or the opposite bank.
- Staff shall get signed landowner authorization on all new waters. VDGIF has an approved landowner public fishing agreement form available.

Geographic Factors:

- Generally, the catchable trout program will be limited to the traditional trout counties lying west of U.S. Highway 29 and abutting the Blue Ridge, except for the Urban Fishing Waters, and Delayed Harvest Waters, which are available statewide.
- VDGIF's goal is to retain, expand, and improve the program where possible. Therefore, additions to the catchable trout stocking program will be considered throughout the approved region without limiting numbers of waters by county or region. However, VDGIF will give higher priority to areas that have limited trout fishing opportunity and to areas that better serve high population densities. Additions to the program should be used to substitute for removal of undesirable waters where appropriate.

ANGLER SURVEYS: 2013-2015

In July 2013, VDGIF initiated a study with Virginia Tech's Department of Fish and Wildlife Conservation to evaluate the stocked trout program. This research was designed to address the following questions:

1. How many stocked trout do anglers catch and harvest?
2. Are trout license sales declining, and if so, why?
3. What can be done to improve angler satisfaction with stocked trout fishing and management in Virginia?

To address the first question, researchers conducted creel surveys on 17 stocked trout waters across Virginia, interviewing anglers as they fished (Table 1 and Figure 4). These interviews provided information on how long anglers fished, the number of trout caught and harvested, as well as preferences and opinions regarding fishing for stocked trout. To address questions 2 and 3, researchers analyzed patterns in license sales and used two mail surveys to collect information from stocked trout anglers. To address question 2, researchers surveyed 1,100 anglers who had previously purchased trout licenses in 2012 and 2013 but did not purchase a trout license in 2014, asking questions about why they did not fish and if they planned to participate in the future. To address the question 3, researchers sent a different survey to 5,400 licensed trout anglers designed to better understand why anglers fish for stocked trout, what aspects of the program they prefer, and what drives their satisfaction. These research efforts significantly enhanced stakeholder input in development of the Plan.

Table 1. Sites where researchers interviewed anglers during the 2013-2014 and 2014-2015 stocked-trout seasons. PNT denotes a Put-and-take fishery, while DH denotes a Delayed Harvest fishery.

Site	County	Stocking area (mi. or acres)	Type of Fishery	Class	Trout Species Stocked
Pandapas Pond	Montgomery	8	PNT	A	Rainbow

Roanoke River	Roanoke	2.38	DH	-	Rainbow & Brown
Big Stoney Creek	Giles	7.51	PNT	A	Rainbow
Whitetop Laurel Creek	Washington	5.61	PNT	A	Rainbow & Brown
Frying Pan Creek	Dickenson	4.95	PNT	C	Rainbow & Brown
Lincolnshire Lake	Tazewell	21	PNT	A	Rainbow & Brown
Locust Shade	Prince William	8	PNT	Urban	Rainbow & Brown
Dorey Park Lake	Henrico	5	PNT	Urban	Rainbow & Brown
Lake Thompson	Fauquier	10	PNT	A	Rainbow, Brown, & Brook
Mill Creek	Rockbridge	1	PNT	A	Rainbow, Brown, & Brook
Rose River	Madison	2.91	PNT	A	Rainbow & Brook
South River	Waynesboro City	1.33	DH	-	Rainbow, Brook, & Brown
South Fork Powell	Wise	2.36	PNT	A	Rainbow & Brown
Stock Creek	Scott	2.17	PNT	B	Rainbow
Liberty Lake	Bedford	1.8	PNT	A	Rainbow
North Creek	Botetourt	2.51	PNT	B	Rainbow and Brook
McFalls Creek	Botetourt	2.47	PNT	C	Rainbow

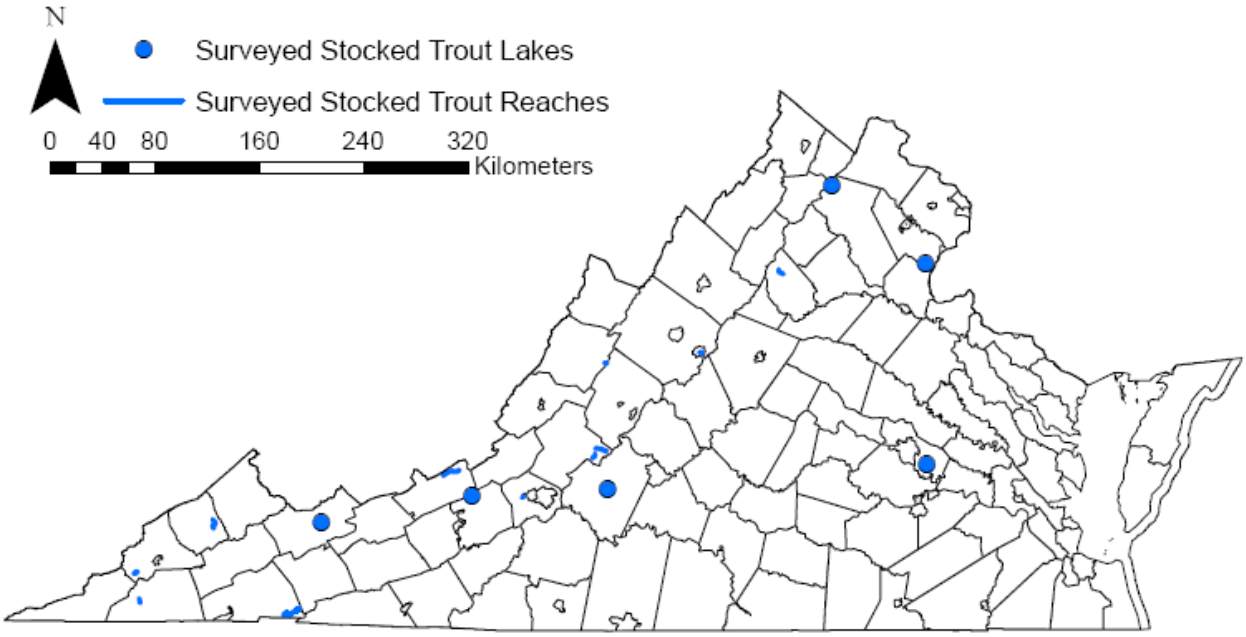


Figure 4. Location of trout streams and lakes where creel surveys were conducted.

Angler Characteristics

Respondents to the on-site survey ranged in age from 18 to 91, with an average age of 48. Males comprised 92% of the respondents and most were either employed (55%) or retired (27%). The remainder of anglers were either students (6%), unemployed (4%), disabled (3%), homemakers (1%), or did not respond (4%). Anglers fished for stocked trout in Virginia an average of 25 days per year, traveling, on average, approximately 24 miles one-way per trip. Over 57% of the anglers caught at least one fish, and averaged 1.2 trout per hour. Twenty-two percent of anglers interviewed while fishing had a lifetime trout fishing license.

Respondents to the mail survey ranged in age from 18 to 90 and averaged 57, slightly older than the average age of 48 from the 2008 VDGIF Trout Survey. Males comprised 91% of the respondents and about equal numbers of them were employed (46%) or retired (47%). A total of 45% of survey respondents had a lifetime trout fishing license and 37% bought their general fishing license only to fish for stocked trout. Respondents fished for stocked trout about 12 days per year.

Types of Anglers

We identified different types of anglers during creel surveys as well as in the mail survey (Table 2). Anglers differed in several ways, including the type of tackle they fish with, how often they harvest stocked trout, how much money they spend pursuing stocked trout, how often they fish, and how important stocked trout are to their lifestyle (e.g., fishing-related vacations and magazine subscriptions). Segmenting anglers based on these attributes provides a useful way for managers to develop strategies that satisfy the various groups of anglers that exist in Virginia.

Table 2. Relative characteristics of Virginia's stocked trout anglers.

	Types of Anglers			
	Occasional	Generalist	Traditionalist	Specialist
Type of tackle used	Bait	Bait, lures, and flies	Bait	Flies
Harvest frequency	Nearly Always	Sometimes	Often	Rarely
Investment in equipment	Low	Moderate	Low	High
Membership in organizations	No	No	Occasionally	Yes
Trout fishing frequency	Low	High	High	Moderate

Year-round Season

Since 1996, VDGIF has maintained a year-round trout season with stockings occurring from October through May. This year-round season eliminated the opening day of trout season for stocked fish, which generally occurred on the first Saturday in April. Virginia's trout anglers overwhelmingly support the year-round season (Figure 5; 1,707 responses from the mail survey and 1, 937 responses from the on-site survey).

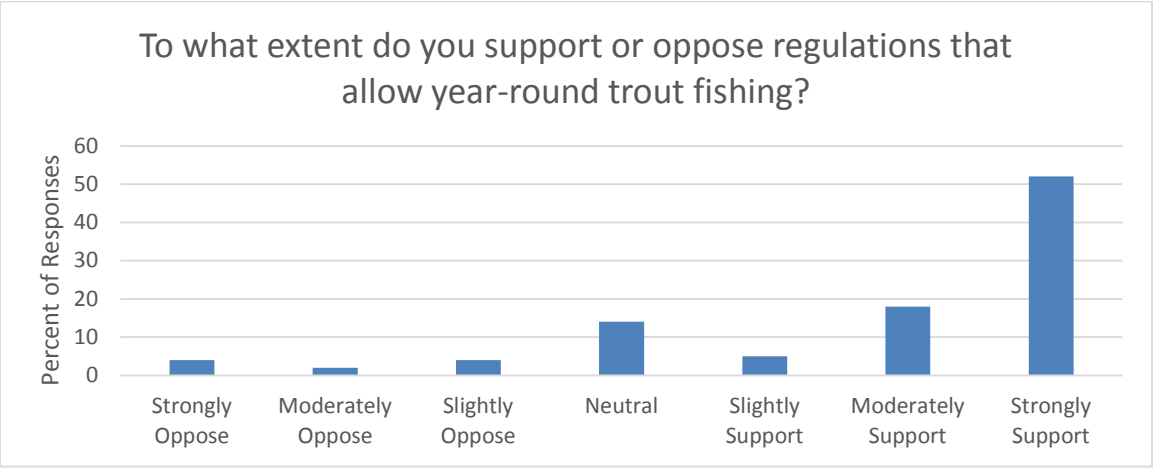


Figure 5. Support for year-round trout season from mail survey.

An alternative way of looking at angler preference for the year-round season versus having a defined opening day was asked during the creel surveys. Anglers strongly opposed VDGIF returning to having a spring stocked trout season that included an opening day (Figure 6).

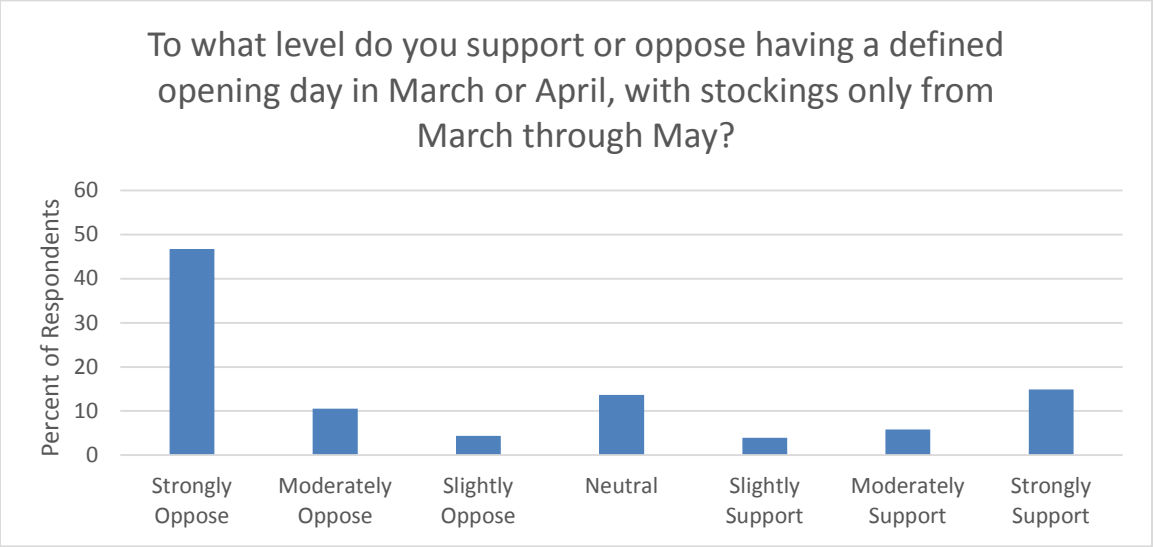


Figure 6. Support for having an opening day and spring trout season from creel survey.

Stocking Announcements

Virginia's stocked trout anglers differ greatly in how they prefer stockings to be announced. Nearly equal proportions prefer the three possible announcement types (announced prior to stocking, announced at 4 PM the day of stocking, and stockings not announced at all; Figure 7).

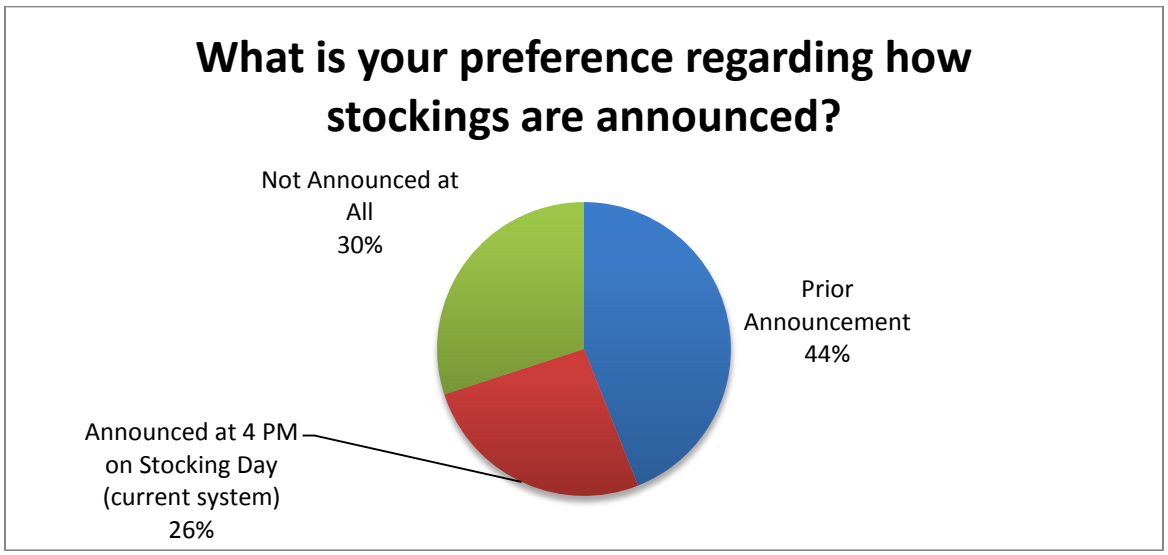
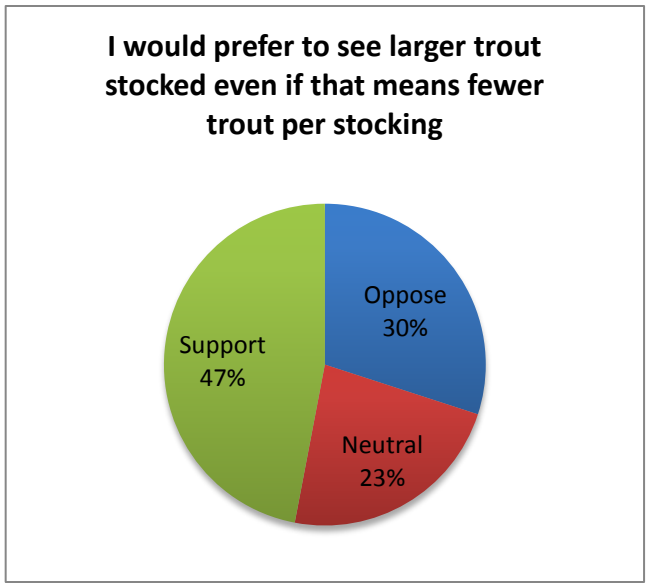


Figure 7. Preferences for how trout stockings are announced.

Anglers often desire to catch more and larger trout. However, hatcheries cannot satisfy these competing goals simultaneously. The production of more trout will mean that the average size is smaller. Conversely, to produce larger-than-average trout, fewer trout will be produced. When asked to select which they would prefer, slightly more Virginia trout anglers favored VDGIF stocking fewer, but larger trout. However, a portion of anglers (37%) preferred stocking of more trout, even if those trout were smaller (Figure 8).



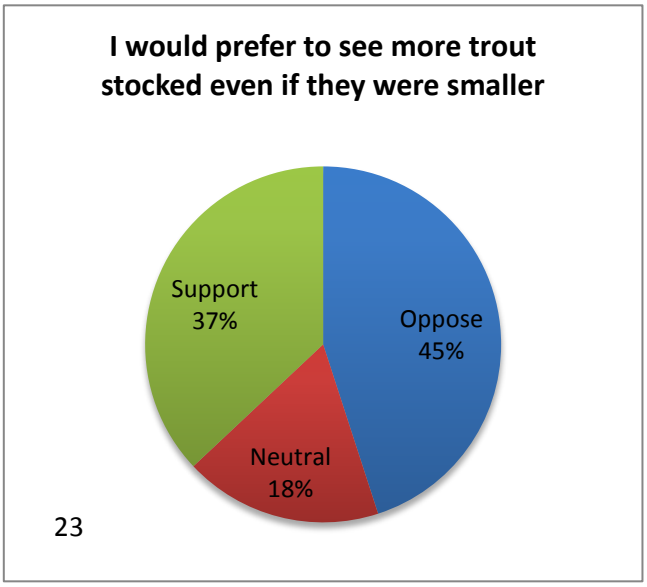


Figure 8. Support for VDGIF stocking more but smaller trout and for fewer but larger trout.

Motivations to Fish

Motivations represent outcomes anglers desire from their fishing experiences. Anglers fish for a variety of reasons including opportunity for relaxation, joy of catching fish, and to get away from the daily routine. Conversely, catching fish to eat, catching trophy fish, and to be alone were less important reasons why anglers fish for stocked trout. Generally, respondents from the mail survey found natural settings (non-catch attributes) of trout fishing to be more important than actually catching fish. Anglers interviewed while fishing differed slightly from mail survey respondents. The top response to the question, "What are the three most important reasons for your decision to fish here today?" was, "To relax and/or to be outside," the next two most common responses were catch-related: "I know it was stocked recently," and "To catch fish for food."

Satisfaction with Fishing

While motivations represent the desired outcomes of fishing, satisfaction relates to the perceived fulfillment of those outcomes. Overall, Virginia's stocked trout anglers were satisfied with the variety of trout fishing programs managed by VDGIF: catchable stocked trout waters, delayed harvest, urban waters, Heritage Day, and fee fishing areas.

Just as motivations differed between catch and non-catch attributes, so did satisfaction. Satisfaction for non-catch aspects of fishing (e.g. being outdoors, relaxing experience, being in a natural setting) scored significantly higher than the number and size of trout caught. Overall however, respondents from on-site surveys were highly satisfied with their fishing experience that day (Figure 9) and with the management of the program in the last 12 months (Figure 10).

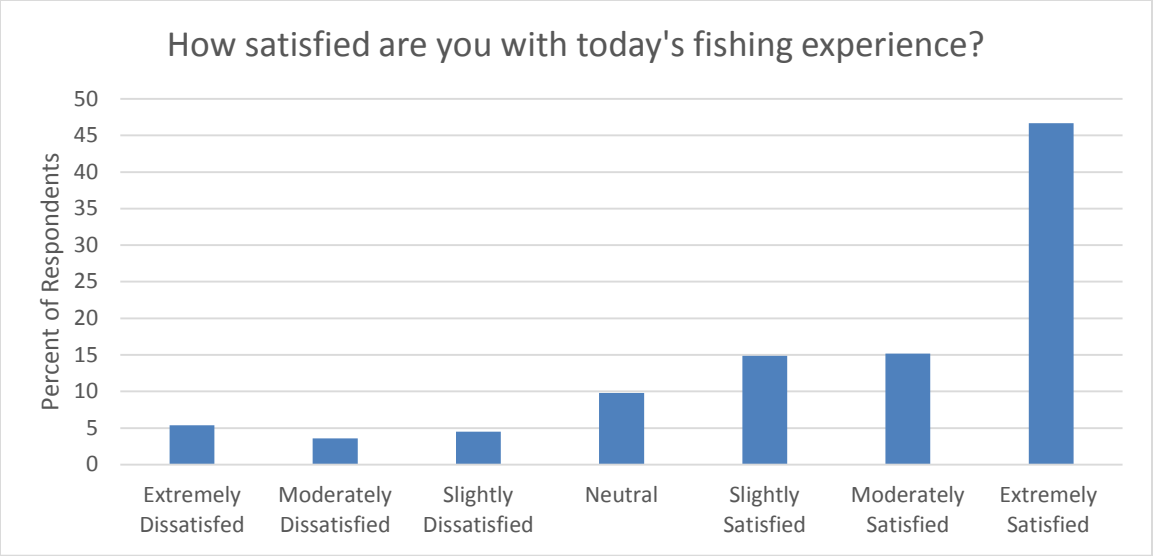


Figure 9. Angler satisfaction with fishing on day of interview.

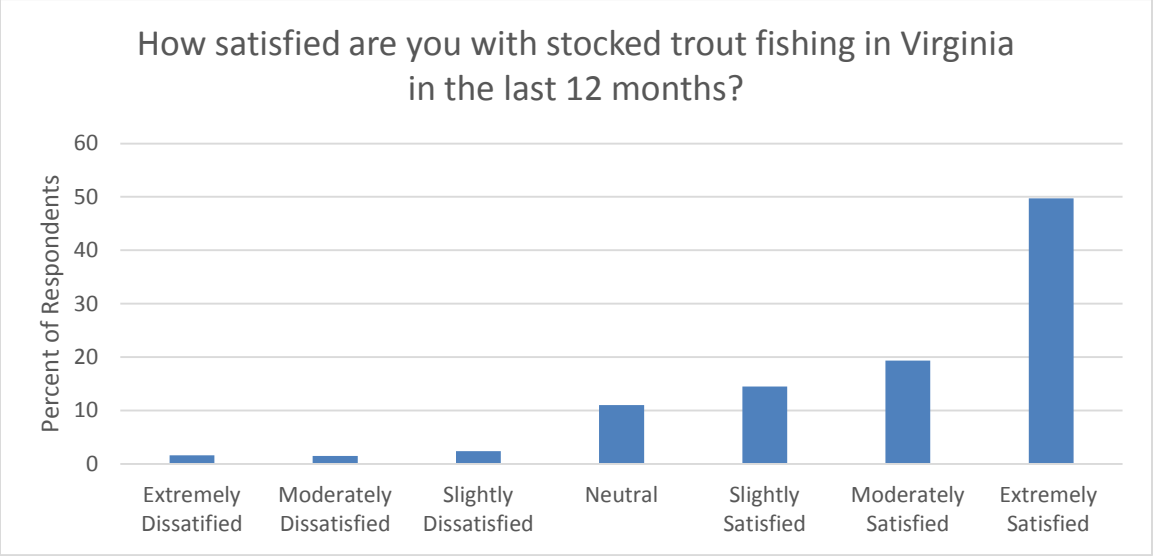


Figure 10. Angler satisfaction with stocked trout fishing during the last 12 months.

Harvest Orientation

Fewer than half of Virginia's stocked trout anglers reported in the mail survey that they always or often keep the fish they catch (Figure 11). Nearly equal numbers of anglers never or rarely harvest stocked trout. On-site surveys however, reveal that over 67% of anglers harvested at least one trout they caught per trip.

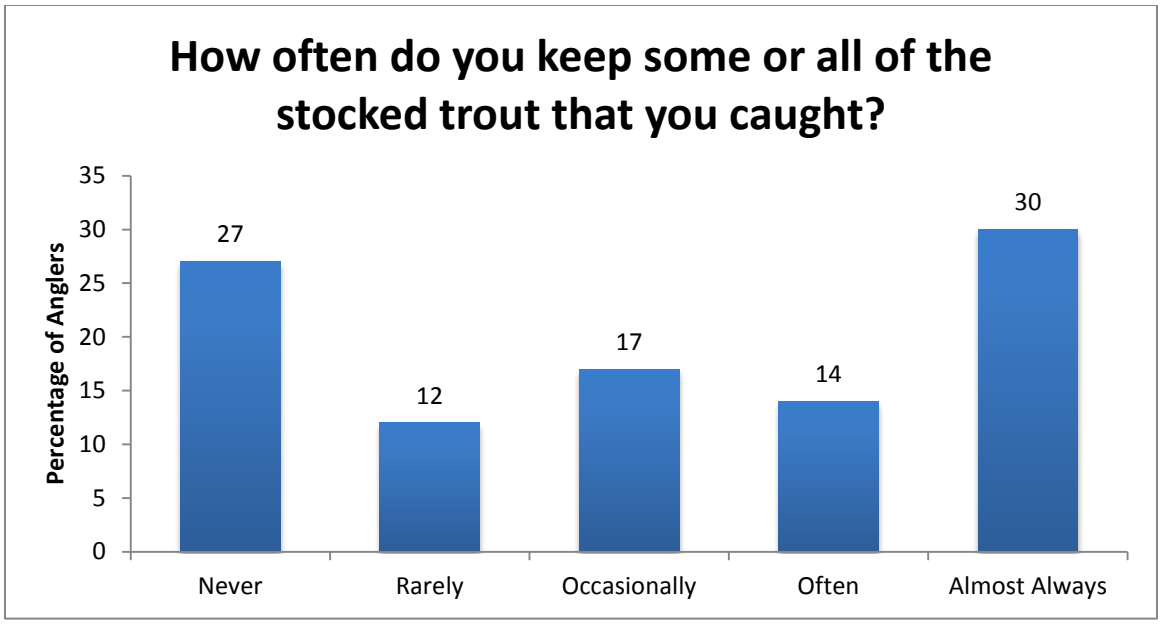


Figure 11. Relative frequency of how often anglers harvest stocked trout.

Catch Rates

A widely accepted objective among fisheries management agencies is to have their anglers catch approximately one trout per hour fishing (Catch rate = one fish per hour of fishing). Catch rates on Virginia waters were around 1.4 fish per hour of fishing on days that waters were stocked. However, catch rates remained around one trout per hour for a month after the trout were stocked (Figure 12). Despite high catch rates immediately after stocking, more than half of the stocked fish remained throughout the first weekend after stocking. Throughout the 8-month season, anglers caught 48% to 100% of each batch of fish stocked.

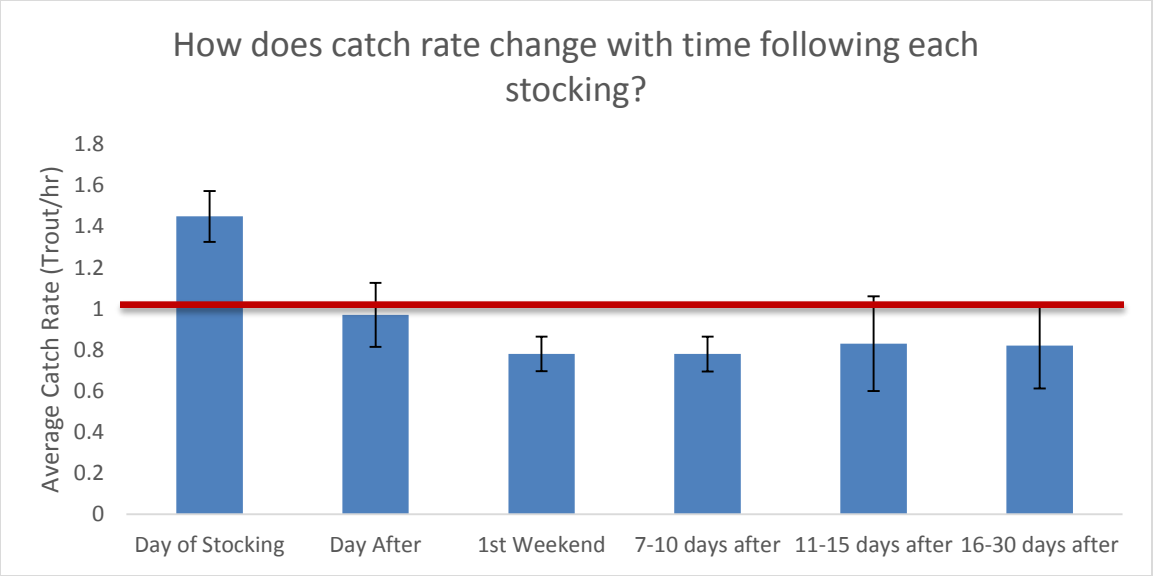


Figure 12. The average number of trout caught per hour of fishing relative to the day of stocking. The horizontal line represents the objective of one trout caught per hour of fishing, while the black vertical bars represent the mean standard error.

Distribution of Fishing Effort

In 2011, over 111,000 anglers fished for trout in Virginia with over 80% of that effort focused on stocked trout waters (U.S. Fish and Wildlife Service and U.S. Census Bureau 2011). The time spent fishing varied with time after stocking and with each season. The time spent fishing following each stocking peaked the day after stocking and declined thereafter (Figure 13). More anglers fished during the spring and fall months than in the winter months (Figure 14).

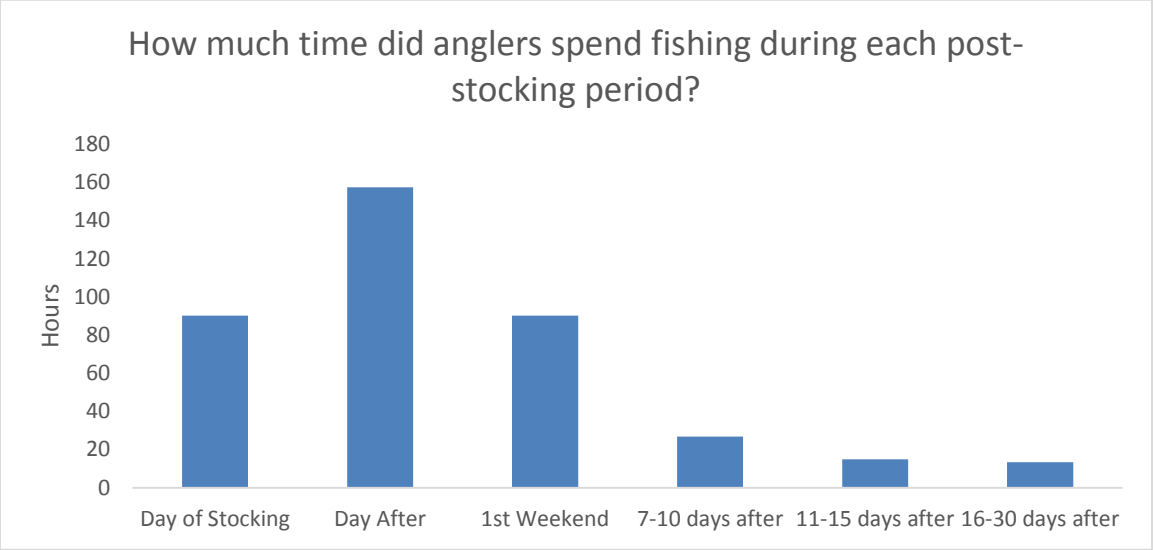


Figure 13. Distribution of time spent fishing relative to day of stocking.

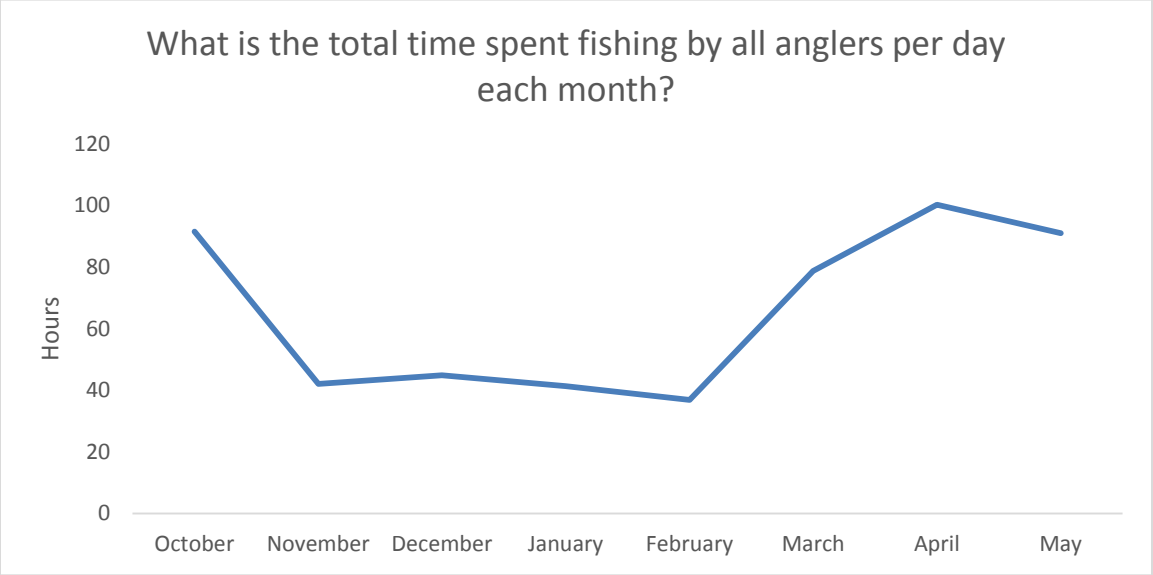


Figure 14. Monthly averages of time spent fishing for stocked trout.

Trends in Participation

Not all anglers fish for stocked trout every year. In fact, during the last 5 years, only half of Virginia's stocked trout anglers bought a trout license to fish in each of the five years and 16% only purchased a license once or twice. Anglers who cease to participate are referred to as lapsed anglers. The "drop in–drop out" rate of lapsed anglers is due to a number of factors. Many anglers cite too many work and family commitments as a constraint to fishing. Others participate in other recreational activities rather than fishing for stocked trout. Finally, others continue to fish, but not for stocked trout. Nearly 70% of lapsed trout anglers intend to participate in the future despite being busy with commitments because fishing for stocked trout is a relaxing experience, and they enjoy being outdoors. Therefore, many lapsed anglers are not lapsed forever but tend to "drop in and drop out."

HATCHERY PRODUCTION

To meet production and distribution needs, VDGIF operates five coldwater fish culture facilities (Table 3). Each facility can rear fingerlings to catchable size, but only three of the five have hatching capability. This presents some logistical challenges regarding transport and distribution, particularly in regards to biosecurity (concern for introduction of diseases or parasites). While the hatcheries share characteristics, they vary in key production elements (Table 3). VDGIF has been working to update facilities to meet contemporary fishery demands while also protecting natural resources, but this can be costly and, as a result, often slower than desired.

The facilities range in age from approximately 80 years (Marion Fish Culture Station) to the most recently renovated, Coursey Springs, which was rebuilt in 2010. The average age of Virginia's Coldwater production facilities is around 55 years, and only one major renovation (Coursey Springs Fish Culture Station) has been completed for the coldwater system in the past 50 years. No hatching capability has been added during that time. Despite this, facilities have taken small steps to improve and maintain production, including new filtration and oxygen systems (Table 3) at several facilities. As a result, total fish production has remained consistent and even improved in recent years.

Table 3. Hatchery comparison table: Virginia's Department of Game and Inland Fisheries has five coldwater Fish Culture Stations (FCS's) that vary in species reared, construction era, and production technology.

		Species		Technology			
Fish Culture Station	Construction era	Reared	Spawned	Triploid egg production	Oxygen supplement	UV filtration	Challenges
Coursey Springs	2010 (renovated)	Brown Trout Brook Trout Rainbow Trout	NA	NA	Yes	No	Water flow Lack of filtrations No hatching capability
Marion	1930s	Brown Trout Brook Trout Rainbow Trout	Brown Trout Brook Trout Rainbow Trout	No	No	No	Crumbling infrastructure Lack of filtration Water drainage specific pathogen No Oxygen supplementation Deferred maintenance
Montbello	1930s	Brown Trout Brook Trout Rainbow Trout	NA	NA	No	Yes	No hatching capability No Oxygen supplementation Water flow
Paint Bank	1960s	Brown Trout Brook Trout Rainbow Trout	Brown Trout Brook Trout Rainbow Trout	Yes	Yes	No	Deferred maintenance
Wytheville	1960s	Brown Trout Brook Trout Rainbow Trout	Brown Trout Rainbow Trout	Yes	Yes	Yes	Deferred maintenance

Historically, fish production numbers have not been collected in a consistent manner across facilities and were not stored digitally. With global developments in computational access and power, data collection has changed drastically. In recent years, this trend has changed for VDGIF, and data are gathered more consistently and assembled in an easily accessible, digital format. Over the past five years, VDGIF has stocked an average of 1,076,825 trout per year, with an annual average total weight of 537,513 pounds, and at an average individual size of 0.51 pounds (approximately 11 inches). With ongoing small-scale updates, these numbers have potential to increase (generally, when number of fish increases, the size decreases, and vice versa), but constraints like deferred maintenance, fish health stressors at high density, and biosecurity present consistent challenges.

Each facility works as part of a statewide production team to meet state stocking needs. Generally, each facility focuses on stocking particular counties (Figure 15). In order to balance resources across the state, facilities stock outside their designated area when necessary.

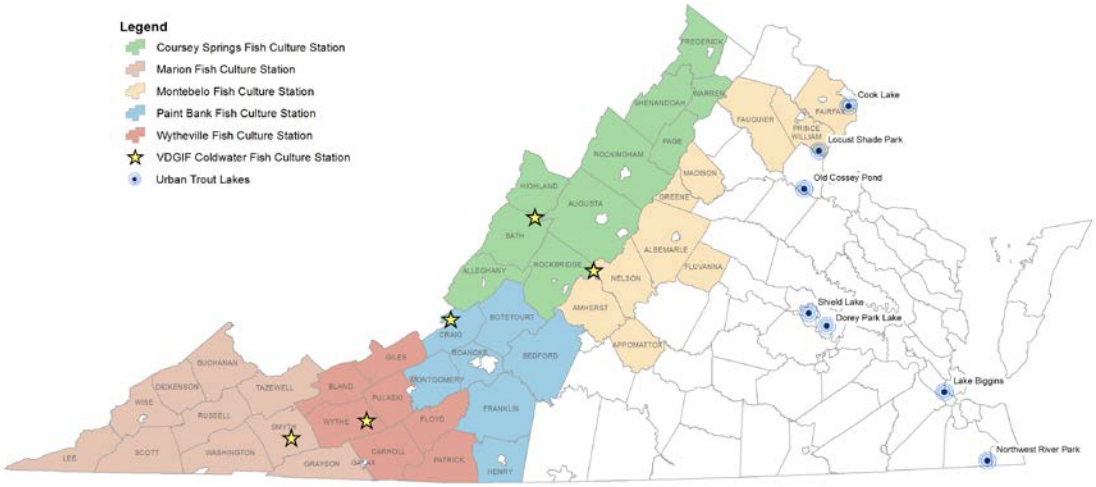


Figure 15. Trout production facility locations and the geographic areas they service. Urban trout lakes are serviced by Montebello and Coursey Springs Fish Culture Stations.

Growth to stocking size

In Virginia, most stocked trout are grown to catchable size prior to stocking. This allows for immediate harvest, and may limit holdover in areas where undesirable. Growth to stocking size (at least 7") varies among species and rearing conditions, but some general rules apply. For instance, fish in an indoor facility with tight environmental control can reach stocking size in as little as six months. However, those are under ideal conditions that are often unrealistic outside of expensive and complicated indoor production systems. In an outdoor setting, with natural environmental fluctuations and high rearing densities, growth rates vary, and trout may take up to a year or more to reach stocking size.

Biosecurity

Biosecurity is defined as measures taken to prevent exposure to harmful biological, chemical, or physical agents that may cause adverse health effects in humans or animals. These agents include infectious microorganisms, such as bacteria, viruses, and parasites, and also non-infectious entities, such as toxins, contaminants, and poor water quality. Biosecurity practices are often initiated in aquaculture facilities in order to meet economic, public health, production, and fish health objectives. Specifically, certain biosecurity practices seek to:

1. Reduce the risk of pathogen introduction into a facility;
2. Minimize the risk of disease spread throughout a facility;
3. Minimize the risk of disease spread out of the facility through cultured product;
4. Reduce conditions that increase the risk of stress and disease susceptibility in a population;
5. Promote overall fish health;
6. Protect economic investment and reputation; and
7. Protect human health.

Pathogens may enter a system at several critical points and pose a hazard to susceptible fish. These include, but are not limited to, imported live fish or fish products (e.g., eggs, fingerlings, broodstock), contaminated source water, commercial feeds, live feed, frozen foods, inanimate objects, such as equipment, that can transmit a pathogen from one population to another, or vectors such as humans or animals (including predatory birds or mammals). Identification of pathogens that are potential threats and pathogens that have been historically diagnosed on-site should be identified prior to drafting a biosecurity plan. Additionally, the most significant threats to the biosecurity of a facility (e.g., untreated surface water, importation of commercially raised fish for rearing or forage on-site, transfer of fish between state hatcheries, equipment that is used in multiple systems or shared between hatcheries, nearby nesting sites of fish-eating birds, proximity to water body with zebra mussel populations) should be identified and specifically addressed by the four essential elements of any biosecurity plan: 1) disease prevention, 2) security precautions, 3) cleaning and disinfection, and 4) disease surveillance.

Biosecurity plans should be tailored to an individual facility; a generic biosecurity plan should never be applied to an aquaculture facility; existing staff, budget constraints, estimated risk, and available equipment all need to be considered. Biosecurity plans are dynamic documents that should be reviewed on a regular basis and amended when situations change. The first step in drafting a biosecurity plan is to critically examine each portion of the facility and all aspects of production to identify potential biosecurity risks or hazards. The guidelines should then be developed to minimize each potential risk to an acceptable level. While some risk is unavoidable, the goal is to create a workable, enforceable, and practical biosecurity plan with an *acceptable* level of risk.

VDGIF is initiating a standardized, system-wide disease monitoring plan for the VDGIF coldwater fish cultural and rearing facilities in order to assess and classify each facility. This will allow for the development of effective site-specific biosecurity plans, while reducing risk of pathogen transfer among the agency's fish rearing facilities and between fish captive-reared and wild stocks. In addition, it will increase the ability for the agency to manage potential ecological impacts of captive fish rearing and stocking. Production and stocking strategies have been diligently adjusted to account for both fish health concerns and to protect natural resources but also with the goal of maintaining fish production. VDGIF is also investigating other pathways to reduce the risk of pathogen transfer from stocked fish to wild populations, including cooperative interagency efforts, improved collaboration with private industry, and assessment of our regulatory capacity.

Trout Species Produced By VDGIF

Rainbow Trout (*Oncorhynchus mykiss*)

Rainbow Trout prefer well oxygenated, high quality water less than 70 ˚F. Rainbow Trout typically live in shallow rivers with gravel bottoms, but have established self-sustaining populations in rivers with bedrock bottoms and spring creeks. Lake- resident Rainbow Trout inhabit cool, deep lakes with sufficient habitat to get through the hot summer months and that have an adequate food supply. Rainbow Trout eat a wide variety of prey, including insects, crustaceans, mollusks, and small fish. The primary food supply depends on habitat and availability of a particular prey within the habitat.

Rainbow Trout are native to the Pacific basin, from the Kamchatka Peninsula in Russia, throughout the Aleutian Islands and southwest Alaska, the Pacific coast of British Columbia and southeast Alaska, and south along the west coast of the U.S. to northern Mexico. Rainbow Trout were originally found inland in the western U.S. occasionally as far east as the Rocky Mountains, west of the continental divide and downstream of waterfalls and other natural barriers. Since 1875, Rainbow Trout have been widely introduced throughout the U.S. and the world. The first rainbow-producing hatchery, established on San Leandro Creek in northern California in 1870, began production in 1871. The first shipment of fish to other hatcheries occurred in 1875, shipping fish to Caledonia, New York, and in 1876, to Northville, Michigan. In 1877, the first National Fish Hatchery System was established on Campbell Creek in northern California. Some of the earliest Rainbow Trout propagation and stocking in Virginia may have occurred at

the Montebello Fish Hatchery in Nelson County in the 1920s. U.S. Fish and Wildlife Service records indicate that Rainbow Trout were released into Shenandoah National Park as early as 1943.

Rainbow Trout are the most popular and easily reared of the trout species because of their highly adaptable nature and rapid growth. Desirable traits include high survivability (tolerant of crowding), voracious feeding, excellent adaptability to artificial feeds, and ready availability as eggs, fingerlings, or adult stock at almost any time of year. Anglers regard Rainbow Trout highly due to its excellent fighting qualities, including frequent leaping when hooked. The fish is pursued using a multitude of angling techniques, including fly fishing, spinning, and casting with live and artificial baits, and trolling. The species is also excellent table fare, supporting an extensive commercial culture industry.

Rainbow Trout require cold water with an optimum growth temperature range of between 55 to 65 ˚F, high water quality, and nutritional feed with high fat and protein content (high-priced feed). Each Virginia coldwater facility faces its own group of challenges in rearing Rainbow Trout, including fluctuating water temperatures and flow rates, water quality, space, predation, and disease control. Rainbow Trout are well suited for Virginia stocked trout waters because existing VDGIF facilities match the specie's needs well and Virginia anglers enjoy catching them. The coldwater hatchery system has several strains of Rainbow Trout that spawn at different times of the year.

Brown Trout (*Salmo trutta*)

Brown Trout first arrived in the U.S. on February 24, 1883 as eggs aboard the German steamship *Werra*. These eggs were distributed to three hatcheries in the U.S.: Cold Harbor Hatchery on Long Island, NY, the Caledonia Fish Hatchery in western NY, and the U.S. Fish Commission hatchery in Northville, MI. Over the following years, these initial stocks were reinforced with the importation of more eggs from Western Europe. Brown Trout continue to be cultured in the U.S. for recreational uses to this day.

Brown Trout are used mainly for recreation purposes in the U.S., and unlike Rainbow Trout, Brown Trout rarely are raised for commercial food operations. They have a temperature range similar to that of Rainbow Trout, but can handle a wider range of water quality parameters than either Rainbow Trout or Brook Trout. This makes them a good candidate for stocking marginal waters where Rainbow or Brook Trout may not perform well. Additionally, Brown Trout have the best chance to "hold over," due to greater tolerance for marginal habitats and wariness to lures. This elusive behavior also makes them a favorite of many advanced anglers.

Brown Trout were officially first stocked in Virginia's waters in the 1950s by the Virginia Game Commission (now VDGIF). These fish were obtained from the U.S. Fish & Wildlife Service White Sulphur Springs Fish Hatchery, and were stocked into the Roanoke River and into Smith River below Philpott Dam. In Virginia, Brown Trout fill a niche in larger streams and lakes. Unfortunately, they can be detrimental to native fishes due to their tendency to feed on other fish. As a result, biologists are now careful in the placement of Brown Trout to preserve

native and naturalized fishes. Rearing by VDGIF likely began in the 1960s after initial introductions indicated that anglers desired Brown Trout for sport.

Brown Trout prefer deep streams with moderate to slow currents, which allows them to perform well in large lakes with an adequate forage base. They prefer rocky, coarse river and lake bottoms, and feed on a wide variety of forage ranging from algae to aquatic invertebrates to other fish.

Brown Trout tend to grow slower to 10 inches than either Rainbow or Brook Trout. However, upon reaching a size that allows them to prey on other fish, Brown Trout may grow faster than comparable aged Rainbow or Brook Trout. While they are susceptible to some bacterial infections common to cultured trout, Brown Trout demonstrate a natural resistance to Whirling disease, which can be devastating to Rainbow Trout.

Brook Trout (*Salvelinus fontinalis*)

Brook Trout prefer water temperatures below 65 ˚F and do not tolerate higher water temperatures as well as Rainbow and Brown Trout. Brook Trout require very high water water quality that is well oxygenated. They inhabit large and small lakes, rivers, streams, creeks and spring ponds, but prefer small spring ponds and small spring-fed streams that are typically headwaters to larger tributaries. Preferred stream habitat includes sand and gravel bottoms with very little siltation. Brook Trout prey on a wide variety of items, with younger fish feeding on small insects and adults feeding on many types of aquatic insects, terrestrial insects, snails, worms, and small fishes.

Brook Trout are native to a wide area of Eastern North America (including Virginia), Canada from the Hudson Bay basin east, the Great Lakes-Saint Lawrence system, the Canadian maritime provinces, and the upper Mississippi River drainage as far west as eastern Iowa. The southern range of native Brook Trout has been reduced to high–elevation, remote streams due to habitat loss and introductions of Brown and Rainbow Trout. Their range expanded westward as early as 1850 through intentional introductions. Brook Trout may have been stocked out of Montebello Hatchery as early as the 1920s or 1930s.

Although Brook Trout are popular with anglers, they can be difficult to rear in some hatcheries. Brook Trout's higher sensitivity to temperature, crowding, low oxygen, and other aquaculture stresses can make it more difficult to rear in captivity than Brown or Rainbow Trout. Brook Trout require an optimum growth temperature of about 59 ˚F, very high water quality, and nutritional feed with high fat and protein content (high-priced feed). Brook Trout are especially difficult to rear at facilities that encounter drastic temperature changes, water flow fluctuations, and water quality issues. At most aquaculture facilities, Brook Trout must remain in the upper sections of raceways to obtain optimum water quality for growth and fish health.

Desirable qualities of Brook Trout include their colorful appearance, native appeal, and adaptability to artificial feeds. Brook Trout are particularly popular among fly fishermen. Many anglers prefer the taste of Brook Trout to that of other trout. Due to its status as the only trout

native to Virginia, many conservation-minded anglers practice catch-and-release fishing for Brook Trout.

Triploid Trout

Triploid fish have three sets of chromosomes, instead of the two sets (diploid) normally found in trout. Female triploids do not develop eggs and although male triploids develop sperm, they are much less fertile than normal diploid fish. Triploids are effectively sterile and rarely occur naturally. Triploid varieties of many species of fish have been created for commercial and recreational purposes. Because triploid fish do not reproduce, they put more energy into growth and produce larger fish at reproductive age than fertile, diploid fish. In Virginia, triploid varieties of Rainbow Trout, Brown Trout, and Brook Trout are produced by subjecting freshly fertilized eggs to either heat or pressure shocks. Several states stock triploid trout, including Idaho, North Carolina, Arizona, and Virginia. Virginia stocks triploids as catchable fish to prevent interbreeding with Southern Appalachian Brook Trout stocks. In addition, triploids are utilized as a measure to prevent the establishment of natural-reproducing populations of Rainbow, Brown, and Brook Trout in undesirable waters.

Triploid production in Virginia began in 2005, at Paint Bank Hatchery with Rainbow Trout. At that time, Virginia produced about 15,000 triploid fingerlings. Currently, Paint Bank and Wytheville hatcheries create triploid Brook, Brown and Rainbow Trout. In 2014, VDGIF produced approximately 400,000 triploid fingerlings. Extra triploids not used for specific watersheds are stocked as needed in any stocked trout water. Some of VDGIF's hatcheries also grow triploids to produce "big fish" for stocking purposes. Triploid fish do not differ in physical appearance compared to diploid fish. The desirable qualities of triploid fish (i.e., reproductive sterility, rapid growth) have resulted in increased demand for them. Triploid trout, especially Brook Trout, are harder to rear in the hatchery system. Fertilization, hatch, and survival rates of triploids are lower than those of diploids. Thus, more eggs are required to make triploids than diploids. Hatcheries are improving triploid production techniques and VDGIF likely will continue to use triploids in the future. Marion Hatchery does not yet have equipment for making triploids.

VALUES, GOALS, OBJECTIVES, AND POTENTIAL STRATEGIES

The SAC members, with technical assistance and feedback from VDGIF staff, drafted five goals addressing stocked trout management. These goals reflect the values of a diverse public and are broad statements of principles and ideals about what should be accomplished with stocked trout management in Virginia. As the underpinning for the direction of stocked trout management, these guiding public values should be relatively stable for the period of the plan.

Specific objectives follow each set of value and goal statements. Based on the goals identified by the Stakeholder Advisory Committee, the Technical Committee established specific objectives to help guide the attainment of each goal. Objectives are the technical expression of the public vision found in the goal statements. Objectives are generally more specific, quantifiable, and have milestones for achievement.

Potential strategies clarify how each objective might be achieved. As with objectives, technical management decisions about specific operational strategies to achieve public values are largely the realm of fisheries professionals. Implemented strategies will be based on the best available science, anticipated efficacy, public acceptability, and expected costs. While this is not an operational plan detailing all the specific steps, actions, or costs to achieve objectives, these strategies represent some of the approaches, techniques, and programs that will be considered to accomplish objectives.

STOCKING ANNOUNCEMENTS

Under current policies, VDGIF announces waters that have been stocked at 4:00 p.m. each day. The only stocking events announced in advance are those waters stocked for Heritage Day and for kids fishing events where VDGIF supplies the trout. Virginia trout anglers are divided over the issue of announcing stocking events. A 2014 survey showed that 26% of Virginia trout anglers preferred the current policy of delayed stocking announcements, while 29% of trout anglers preferred no announcement of stocking events. Twenty-two percent of anglers preferred to have stocking events announced for the whole trout fishing season prior to its beginning, with another 23% preferring prior announcements on a daily, weekly or monthly basis. The issue of when to announce stocking events (or whether to announce them at all) is important because of concerns regarding equity of access to stocked trout. Prior announcement of stocking events allows anglers to plan fishing trips but announced stockings sometimes cause crowding and traffic safety issues when many anglers arrive at the announced time and place. Unannounced stocking events may alleviate some of the crowding and safety issues, but favor those anglers who follow the hatchery trucks, or learn of the trucks' destinations via phone trees or social networking. Delayed announcements (the current policy) provide an alternative to prior announcements and unannounced stocking events.

Prior to 1996, stocked trout fishing began on Opening Day (Saturday in late March or early April) each year. Many anglers enjoyed this announced stocking. However, several issues existed regarding opening day. Landowners concerned with crowding withdrew some stocking

sites each year. Also, hatcheries can produce better quality trout if streams and lakes are stocked throughout the year. Angler surveys conducted periodically over the last 20 years indicate that about 75% of anglers support a year-round season with stockings occurring from October through May. In 2001, VDGIF began Heritage Day which provides an "opening-day" experience on the first Saturday in April. This announced stocking event occurs on about 20 waters each year. Trout are stocked that week and the site is closed to fishing until 9:00 AM on Saturday. Angler counts conducted by VDGIF indicate that fishing pressure is 3-4 times less on Heritage Day when compared to Opening Day counts on the same waters.

Value Statement

Virginia's trout anglers have diverse expectations of how trout stockings should be announced. The ability to plan fishing trips is valued by many anglers who prefer that VDGIF announce stockings before they occur. Others feel that unannounced stockings provide for more equitable access to stocked trout and a more natural fishing experience that is less crowded. Still other anglers prefer announcements delayed until the end of the day stockings are made. Trout stocking announcements should be diverse, allow for increased participation, and advanced trip planning to meet the desires of different stakeholders. Various forms of announcements should be promoted.

Goal Statement

Announce stockings using a variety of strategies (including prior announcement, post-stocking announcement, or no announcement) to provide equitable access to the resource and to address the diverse preferences of trout anglers. In addition to existing Heritage Day events, some stockings will be announced in advance to allow anglers to plan fishing trips to coincide with known stockings. Other stockings will be announced at the end of the day when stocking occurs to reduce crowding and ensure the safety of anglers and VDGIF personnel involved with stocking.

Objectives and Strategies

1. Continue the policy of not announcing stocking delayed harvest (except for the first stocking which is announced at 4:00 PM the day of stocking), catch-and-release, and other special regulation waters.
    a. List unannounced stocking sites annually in the trout guide.

2. By 10/1/2016, announce in advance stocking events in Trout Heritage waters, fee fishing areas, urban trout waters, and kid's fishing events.
    a. List Trout Heritage waters annually in the trout guide.
    b. List fee fishing areas annually in the trout guide.
    c. Stock fee fishing areas on a regular basis multiple times per week, as described in the trout guide.
    d. Announce stockings for kid's fishing events at least 30 days in advance.
    e. For urban trout waters, announce the week that stockings will occur at least 30 days in advance via the VDGIF website, the Outdoor Report, the Trout Line,

press releases to local media, and social media. Scheduled stockings are subject to change due to inclement weather, or unforeseen circumstances.

3. Identify a minimum of two waters (by 5/1/2016) in VDGIF administrative region's 2, 3, and 4 to test prior announcement of multiple stocking events each year in those waters. Implementation should begin in 2017 and be tested for 2 years.
    a. Identify waters that have adjacent landowners who are willing to cooperate with pre-announced stocking events. Coordinate with United States Forest Service (USFS)for waters on United States Department of Agriculture (USDA) lands.
    b. Identify waters that are easily accessible by road, have adequate access to the water, and suitable parking areas (e.g., current Heritage Day waters).
    c. Identify waters that have existing infrastructure to support pre-announced stocking events (e.g., bathroom facilities, campgrounds).
    d. Identify needs for law enforcement presence to control traffic and ensure safety of hatchery personnel and anglers and enforce stocking-day closure.
    e. Schedule pre-announced stocking events to promote trout fishing at desired times (e.g., first fall stockings, weekends, holidays, free fishing weekend, and school break periods).
    f. Investigate strategies pertaining to temporary closures immediately following stocking.
    g. Investigate different stocking densities and frequencies for waters selected for prior announcement.
    h. Scheduled stockings are subject to change due to inclement weather, or unforeseen circumstances.
    i. Assess angler use, opinions, and satisfaction with pre-announcement stockings.
    j. Promote fishing education in schools (e.g., trout in the classroom, fishing clubs, etc.).
    k. Report at end of two-year evaluation.

4. Continue the current policy of announcing stocking events at 4 PM the day of stocking except for waters that receive pre-announcements or for which stockings are unannounced.
    a. Announce each day's stocking events at 4 PM online, through social media, and on the Trout Line.

5. Publish by July 15 each year a report that lists pounds of trout stocked by county and/or water in the previous 12 months.
    a. Post the report on VDGIF's website.
    b. Announce the availability of the report via the Outdoor Report and social media.

ANGLER RECRUITMENT AND RETENTION

Nearly 100,000 anglers fish for stocked trout in Virginia. Results from a 2009 statewide angler survey indicate that trout rank second to black bass in popularity with Virginia anglers. However, the average age of licensed trout anglers is 58, suggesting that ensuring a bright future for stocked trout fishing requires recruitment of new and younger anglers. The

increasingly diverse human population in Virginia presents opportunities to reach out to new angling stakeholders. Additionally, roughly half of all trout license buyers do not purchase a license the following year and thus, retention of current anglers remains a high priority. These convergent demographic trends suggest that participation in fishing for stocked trout in Virginia will decline in the future, unless VDGIF initiates awareness strategies to counteract them.

Value Statement

The future of the stocked trout program relies on recruiting and retaining anglers. If current trends in participation in trout angling do not change, and the average age of anglers continues to increase, the stocked trout program will decline because trout anglers financially support the program. The stocked trout program benefits local economies and strengthens communities as anglers seek recreational fishing opportunities. Stocked trout fishing increases environmental stewardship, outdoor participation, and preserves the long-standing tradition of fishing for stocked trout. Therefore, VDGIF should evaluate current and proposed policies to promote recruitment and retention of trout anglers, especially youth.

Goal Statement

Inform and educate existing and potential future anglers and promote fishing for stocked trout to recruit younger and more diverse anglers to the sport and to retain those already engaged.

Objectives and Strategies

1. By July 1, 2021, increase youth (under 16 years of age) participation in the stocked trout program by 10%.
    a. Evaluate the number of license buyers ages 16-20 and compare with historical data.
    b. Quantify youth participation at kids' trout fishing events.
    c. Increase number and distribution of kids' trout fishing events, including urban areas.
    d. Assess the feasibility of limiting fishing to youth only until noon on select Heritage Day Waters.
    e. Assess the feasibility of implementing youth-only days on selected waters.
    f. Assess the feasibility of establishing youth-only stocked trout waters year-round.
    g. Recommend to the Board of VDGIF inclusion of designated trout waters on free fishing weekend.
    h. Recommend to the Board of VDGIF the inclusion of a group license for stocked trout.
    i. Identify selected waters to stock for free fishing weekend in June.
    j. Schedule pre-announced stocking events to promote trout fishing at desired times (e.g., first fall stockings, holiday weekends, free fishing weekend, and school break periods).
    k. Develop a competitive grant program that funds (e.g., fishing equipment and trout from private sources) non-VDGIF groups hosting kids' fishing events open to the public.

   l. Promote fishing education in schools (e.g., trout in the classroom, fishing clubs, etc.).

2. By July 1, 2021, increase participation among females and minority populations in the stocked trout program by 10%.
   a. Track number of females purchasing trout license.
   b. Assess the potential for including fishing for stocked trout in programs aimed at increasing participation of females and minorities.
   c. Develop multi-lingual signs, and educational material to target specific ethnic groups.
   d. Promote stocked trout fishing opportunities among college outdoor activity organizations.
   e. Promote urban fishing to attract more females and minorities.

3. By July 1, 2025, recruit new anglers to the stocked trout program to attain 100,000 trout-license buyers (including lifetime license) annually.
   a. Assess angler participation, and motivations, constraints to participation, and management preferences in fishing for stocked trout via a statewide survey every 5 years.
   b. Assess participation by new anglers using VDGIF survey data.
   c. Modify the procedure for purchasing trout license online to assess prior license buying behavior.
   d. Encourage trout license purchases among anglers who seek specialized fishing opportunities by creating special regulation fisheries throughout Virginia.
   e. Promote stocked trout fishing opportunities among college outdoor activity organizations.
   f. Assess the feasibility of changing the regulations on delayed-harvest waters to allow harvest sooner (e.g., Memorial Day weekend).
   g. Increase information available to trout anglers by maintaining an online record of stocking information (e.g., number stocked, pounds stocked, and average size by county and/or water).
   h. Promote stocked trout fishing through other agencies, local governments, and other organizations.

4. Increase participation of non-residents by 10% in the stocked trout by program July 1, 2021.
   a. Monitor non-resident participation in stocked trout fishing through sales of non-resident license sales.
   b. Assess participation by non-resident anglers through VDGIF creel surveys.
   c. Increase information available to trout anglers by maintaining an online record of stocking information (e.g., number stocked, pounds stocked, and average size by county and/or water).
   d. Conduct a survey of former and current non-resident anglers to assess motivations, constraints, license costs and options, and management preferences.
   e. Collaborate with Virginia Department of Tourism to promote stocked trout fishing in Virginia to anglers in surrounding states.

f. Advertise stocked trout fishing in regional media outlets (e.g., regional magazines, websites, TV shows).

5. Develop and implement marketing strategies to promote the stocked trout program by July 1, 2018.
    a. Monitor traffic on social media sites.
    b. Assess angler participation, and motivations, constraints to participation, and management preferences in fishing for stocked trout via a statewide survey every 5 years.
    c. Promote trout fishing as an outdoor experience (tie into motivations).
    d. Promote fishing for stocked trout by posting information and photos on Twitter, Facebook, Instagram and other social media outlets.
    e. Promote stocked trout fishing through other agencies, local governments, and other organizations.
    f. Increase information available to trout anglers by maintaining an online record of stocking information (e.g., number stocked, pounds stocked, and average size by county and/or water).
    g. Identify schools and contact people that can help disseminate information about stocked trout fishing opportunities to students.
    h. By July 1, 2018, launch an easy-to-use online resource providing details (directions, amenities, etc.) for each stocked trout fishing water.
    i. Publish 8 articles per year informing the public of stocked trout fishing opportunities (VDGIF website/blog, the Outdoor Report, and VDGIF social media).

FUNDING AND ADMINISTRATION

The stocked trout program depends upon the revenue generated from the sale of trout licenses and general fishing licenses. None of the funding for the program derives from general state taxes. A trout license and a freshwater fishing license are both required to fish for stocked trout in Virginia. A 2008 survey revealed that 64% of trout license buyers purchased these two licenses to fish solely for stocked trout. The revenue from these "double" license sales is significant. Sales of annual trout licenses have decreased substantially in recent years, while sales of lifetime trout licenses have increased substantially. Since 2001, trout anglers purchased nearly 50,000 lifetime trout licenses, but the decrease in sales of annual licenses resulted in a net decrease in revenue to support hatchery production of catchable-size trout and maintain hatchery facilities. It is not known how many lifetime trout license holders continue to fish for stocked trout.

Value Statement

To continue current operations, the stocked trout program must account for costs associated with annual production, support regular facility maintenance and promote improved efficiency in a transparent manner. Currently, license fees cover most of the operating costs of the program. However, the expensive and rising costs associated with producing and transporting stocked trout, including, law enforcement, and public outreach not only limit the

scope of the current program but also create future financial challenges. The license fee revenue should cover operating costs of the program while providing anglers with the opportunity to fish for stocked trout.

Goal Statement

Maintain a productive and adequately funded stocked trout program, including investigation of alternative funding and resource mechanisms to meet current and anticipated future demands. Maintain an open and transparent decision-making process regarding management of stocked trout.

Objectives and Strategies

1. Conduct a financial evaluation of the trout program and develop strategies based on those results by January 1, 2017.
    a. Conduct a detailed evaluation of license sales and types of licenses to assess effects on VDGIF revenues.
    b. Identify and evaluate different approaches to increase license sales including approaches of other states, for example multi-year licenses, rollover licenses and automatic renewal or notification.
    c. Evaluate demographic trends for potential impacts on future license sales.
    d. Estimate the annual operating cost of the stocked trout program including the cost-per fish.
    e. Identify annual maintenance costs and future needs for renovations at coldwater hatchery facilities and equipment and develop strategies to address costs and future needs.
    f. Identify opportunities to establish partnerships with interested parties, both private and public, to achieve objectives of the Stocked Trout Management Plan.
    g. Improve efficiency of hatchery production through research and development.

2. Publish an annual report detailing accomplishments and progress in achieving objectives of the Stocked Trout Management Plan by September 30 each year.
    a. Compile an annual stocking report detailing quantity and locations (county and/or water) of fish stocked for the period from October of the previous year through May.
    b. Compile an annual report detailing USFS forest stamp revenue projects on stocked trout waters located on USDA lands.
    c. In the case of production shortages, a reduction in stocking will be made on a percentage basis statewide.
    d. Report on progress made relative to specific plan objectives using multiple media outlets (e.g., VDGIF website, Outdoor Report, press releases, social media) to improve public awareness of the program and its progress.

ECOSYSTEM EFFECTS

Catchable stocked trout interact with other fish and aquatic organisms, including native species when introduced into streams or lakes, which may cause concerns about whether those interactions negatively affect the species already present. High angler use associated with some catchable trout stocking sites may harm riparian buffers, and/or increase erosion, littering, and sedimentation.

Value Statement

VDGIF should balance the benefits of stocked trout fishing with effects on the ecosystem. Virginia anglers should value wild and native trout in addition to stocked trout and the effects of trout stocking on native aquatic species should be considered. Virginia stocked trout anglers should value the protection of habitat and the conservation of quality trout habitat.

Goal Statement

Manage trout stocking to optimize recreational opportunities while minimizing adverse impacts on aquatic and surrounding habitats, wild and native trout, and other aquatic species. Manage habitat in stocked trout waters and preserve the aesthetics of the angling experience.

Objectives and Strategies

1. Develop strategies to minimize the effects of stocking on existing wild and native trout by January 1, 2017.
    a. Develop and publish the list of waters that contain existing native trout populations.
    b. Continue to monitor wild trout distribution through the Coldwater Streams Survey.
    c. No new native trout waters that have a Class I or II coldwater stream classification will be added to the Catchable Stocked Trout Program.
    d. When waters containing wild or native trout are stocked, VDGIF will consider a variety of strategies to minimize the effects of stocking on wild fish, including not stocking trout, the species of trout being stocked, location and timing of stocking, and the use of sterile fish.
    e. Continue research and development into fish production, focusing on the production of sterile trout.

2. Develop strategies to minimize the effects of stocking trout on existing/resident aquatic organisms in waters currently being stocked and when new waters are being proposed for addition to the stocked trout program by January 1, 2017.
    a. In an effort to minimize the effects of stocking trout on resident aquatic species, VDGIF will consider a variety of strategies, including not stocking trout, the species of trout being stocked, location and timing of stocking, and the use of sterile trout.

   b. When a new water is proposed to be added to the stocked trout program, VDGIF aquatic non-game/diversity biologists (including USFS staff if applicable) will be consulted to determine if stocking hatchery trout poses a threat to any resident aquatic species.

3. Develop strategies to minimize the effects of stocking and angler use on sensitive riparian terrestrial species and habitat in waters currently being stocked and when new waters are being proposed for addition to the stocked trout program by January 1, 2017.
   a. In an effort to minimize the effects of stocking and angler use on resident riparian species or habitat, VDGIF will consider a variety of strategies, including not stocking trout, the species of trout being stocked, and the location and timing of stocking.
   b. When a new water is proposed to be added to the stocked trout program, VDGIF terrestrial non-game/diversity biologists (including USFS staff if applicable) will be consulted to determine if stocking hatchery trout (angler impacts) poses a threat to any resident riparian species or habitat.

4. Develop strategies to address habitat issues in stocked trout waters by January 1, 2021.
   a. Identify waters most-suited for collaborative management habitat issues.
   b. Develop a list of potential collaborators for management habitat issues, and establish formal relationships where feasible.
   c. Collaborate with USFS to best utilize forest stamp revenues.

RECREATIONAL OPPORTUNITIES

Stocked trout anglers differ in a number of characteristics, such as motivation for fishing, harvest practices, and type of equipment used. Anglers also seek different outcomes from their fishing experiences. Some anglers fish to get away from it all, while other anglers enjoy the social aspect of fishing with others. Some anglers release all or most of the fish they catch, while others look forward to keeping the trout they catch. Some anglers prefer to catch larger fish while others prefer to catch more fish, even if they are smaller. Since the "average angler" does not really exist, a "one-size-fits-all" management strategy satisfies few anglers. Thus, managers face the challenge of providing a wide variety of fishing opportunities to satisfy a diverse group of anglers.

Stocked trout generally create recreational fisheries in locations where natural fisheries do not exist. The demand for stocked trout fishing opportunities exceeds the current ability of VDGIF to supply the fish needed. Numerous streams and lakes in Virginia meet biological criteria to support stocked trout fisheries but are not currently stocked due to hatchery system limitations or concerns about access to the water. In addition, decisions about adding new waters to the stocked trout program must include consideration of labor force and funding to adequately enforce fishing regulations. Virginia's Conservation Police Officers frequently assist in stocking trout and their enforcement of trout fishing regulations is key to successful management of the resource.

Value Statement

The stocked program exists to create or enhance recreational fishing opportunities. These opportunities promote positive interactions with natural settings, relaxation, and social/family experiences. Trout angling provides opportunities to harvest or catch-and-release fish, stimulates local economies and encourages tourism. VDGIF should consider the diverse preferences of anglers, including the balance between the number and size of fish stocked, in developing and selecting management strategies.

Goal Statement

Provide a diversity of stocked trout fishing experiences designed to meet diverse angler preferences and increase participation. Improve access to stocked trout waters for all anglers.

Objectives and Strategies

1. Expand stocked trout fishing opportunities designed to appeal to a variety of angler preferences including developing trophy trout fisheries, catch-and-release fishing, delayed harvest, urban waters, and youth fishing opportunities by July 1, 2016.
    a. Develop a list of potential waters suitable for alternative management strategies.
    b. Identify new management strategies, for example developing trophy trout fisheries.
    c. Expand existing alternative management programs, such as catch-and-release, delayed harvest, special regulation, urban waters, and youth fishing opportunities.
    d. Evaluate current hatchery production techniques to meet the demand for new management strategies including size and number of fish, timing, frequency of stocking, and opportunities for reallocation of stocked fish.

2. Identify 12 waters statewide to be managed with alternative management strategies (e.g., catch and release, delayed harvest, youth only, etc.) by October 1, 2017. This may include the conversion of current stocked waters to a new designation.
    a. Establish criteria to prioritize waters for inclusion in the alternative management strategies program (e.g., angler use, proximity to other stocked waters, geographic location, habitat).
    b. Conduct creel surveys on several waters selected for alternative management strategies to measure angler use and satisfaction.

3. Increase angler access to stocked trout waters where appropriate.
    a. Identify locations that need increased access or where no improvement to existing access is desired by January 1, 2018.
    b. Collaborate with partners and localities to develop facilities that improve access throughout the life of the plan.
    c. Provide more ADA-compliant or barrier-free access to stocked trout waters.

Appendix A. Stakeholder Advisory Committee members.

Name	Interest/Organization	County/City
David Angus	Angler	Amherst
Stuart Burrill	Angler	Big Stone Gap
Nick Collins	Angler	Churchville
Hugh Elliott	Angler, retired	Roanoke
Jimmy Graves	Graves Mountain Lodge	Syria
Cara Kauffman	Angler	Weyers Cave
Dawn Kirk	U.S. Forest Service	Natural Bridge Station
John Lipetz	Angler, youth education	Falls Church
John Rathburn	Angler, college student	Lynchburg
Graham Simmerman	Angler, Trout Unlimited	Weyers Cave
Kristin Stone	Angler	Annandale

Appendix B. VDGIF Stocked Trout Technical Committee members.

Name	Agency Position
Brian Beers	Manager, Paint Bank Hatchery
Jason Hallacher	Region 4, Assistant District Aquatic Biologist
Elmo Herndon	Region 4, Conservation Police Officer
John Odenkirk	Region 4, District Aquatic Biologist
Steve Owens	Region 3, District Aquatic Biologist
George Palmer	Region 2, District Aquatic Biologist
Steve Reeser	Region 4, District Aquatic Biologist
Tim Tilson	Assistant Manager, Wytheville Hatchery
Nate Wilke	Statewide Hatchery Coordinator
Gene Wirt	Region 3, Conservation Police Officer
Eric Wooding	Manager, Coursey Springs Fish Cultural Station
Bryan Young	Region 2, Conservation Police Officer

Appendix C. Summary of public comments

Location	Comment	Goal Area	DGIF Response	#
VDGIF web comments				
Chesterfield	If a population of brown or rainbow trout have established itself and turned wild they should not be removed. This was done on the Conway River in an area that the brook trout did not even populate vey well	Ecosystem Effects	The National Park Service's policy is to manage for native species. The NPS actively removes wild non-native trout and sets regulations on park streams. VDGIF is not involved in management of waters within Shenandoah National Park. VDGIF currently has no policy concerning the removal of wild non-native trout from wild Brook Trout waters outside of Shenandoah National Park.	1
Chesterfield	We need more stream clean up days with greater visibility so we can win more people over to keeping the streams clean instead of a dumping area. By the way; Dumping on a stream should cost you the total lost of your car/truck, $1000 fine, and min. year in jail. Lets stop pussy footing around, let people know they will receive extremely stiff consequences for dumping	Ecosystem Effects	VDGIF supports and participates in stream cleanup efforts. VDGIF has no authority to establish penalties for littering or dumping. Your comment will be forwarded to the Law Enforcement Division.	2

Location	Comment	Goal Area	DGIF Response	#
Nelson	support efforts to maintain as much wild fishery as possible, i.e. do not stock any stream capable of supporting a wild trout fishery	Ecosystem Effects	Consistent with the goal for the issue of ecosystem effects (optimizing recreational opportunities while minimizing adverse impacts), no new Class I or II wild trout waters will be added to the stocked trout program. The use of triploid (sterile) will be investigated when stocking over current wild fisheries. Streams that are currently being stocked to provide additional recreational opportunities will be evaluated on a case-by-case basis.	3
Nelson	favor using a greater amount of VDGIF revenues for habitat improvement, access to streams, etc,	Ecosystem Effects	Partnerships currently exist for habitat improvement and future opportunities will be explored.	4
Fairfax County	I think the trout license needs to be less money, many cant afford the extra stamp.	Funding and Administration	VDGIF will be evaluating its current licensing structure.	5
Franklin County	The sales of trout licences are declining mostly due to costs keep rising. I have considered stopping fishing for this reason and not just trout.	Funding and Administration	VDGIF will be evaluating its current licensing structure.	6
Henrico	Require a trout license to fish delayed harvest or special regulation streams. You have to get funding from somewhere and the program supplies many of the trout.	Funding and Administration	Currently a trout license is required to fish delayed harvest and special regulation waters where catchable sized fish are stocked. See Objective 1 under Funding and Administration issue in VSTMP.	7
Henrico	As I understand from the plan none of the funding from lifetime trout licenses goes to the program. That is wrong and should be changed	Funding and Administration	Income from lifetime license sales are placed into a separate fund. The accumulated interest from this fund is used to support the stocked trout program.	8

Location	Comment	Goal Area	DGIF Response	#
Lee	the reason trout license has declined is due to the expense after already paying that amount for regular license	Funding and Administration	VDGIF will be evaluating its current licensing structure.	9
Nelson	if the cost of stocking would necessitate increased fees/revenues, reduce the amount of stocking!	Funding and Administration	VDGIF will be evaluating its current licensing structure.	10
Rockingham	the license are way too expensive for residents	Funding and Administration	VDGIF will be evaluating its current licensing structure.	11
Bedford County	Speaking for myself I trout fished for many years and loved it. I would go and camp for heratage day and spend a fair amount of money on it. Then the trout stocking got so miserable that I just gave up. It was not worth the time effort or money to catch 2 10 inch fish. It was to the point on Jennings creek that they basicly only dumped trout at the bridges! I have seen holes a bridge where you could not see the bottom for all the trout but all so 100 people! The next mile of creek had no fish! I even volunteered to help stock if there was a shortage of man power. But no one wanted to hear .That. So after a few years of that I just gave up. Now I fish private streams at least I catch good fish and they are spread out like they shoud be!	Miscellaneous	You can volunteer to help distribute fish through the VDGIF Complementary Work Force program is being developed to assist with spreading fish. Please visit www.dgif.virginia.gov/volunteer/#cnf for more information.	12
Bedford County	The only change that I suggest for the current trout stocking program is to return to the twice per month schedule as was done in the past.	Miscellaneous	In the past select stocked trout waters were only stocked twice a month (March - May). The current stocking frequencies were adopted to allow for more flexibility for the hatcheries. This strategy also allows for the hatcheries to stock a higher quality fish.	13

Location	Comment	Goal Area	DGIF Response	#
Campbell	Better directions to the stocked stream should be on the web site for casual trout fishermen would be able to locate the stream	Miscellaneous	Better online maps are being developed to assist with directing anglers to our stocked trout waters. Please visit http://dgif-virginia.maps.arcgis.com/apps/webappviewer/index.html?id=441ed456c8664166bb735b1db6024e48 for more information.	14
Chesterfield	Stiffer fines for trash, no license, over fishing, or other violations. Each infraction should be at least $200 dollars and person(s) forfeits their tackle to be sold of	Miscellaneous	VDGIF supports and participates in stream cleanup efforts. VDGIF has no authority to establish penalties for littering or dumping. Your comment will be forwarded to the Law Enforcement Division.	15
Chesterfield	Youth have to take a hunters course so why not a youth fishing course that includes ethics, laws, and manners on the stream	Miscellaneous	Although not specifically addressed in the VSTMP, VDGIF does have a fishing education program. Please visit http://www.dgif.virginia.gov/education/fishing/ for more information.	16
Chesterfield	All licenses should be worn so that they ar e visible to the Game Officer or Law enforcement Officer. They can be on a hat, on the back of a vest, hung around your neck, or worn on the front. The number is flash material so it can be easily seen from the Officers car or when walking around. There will be a $20 dollar fine if the license is not displayed for the Officer to see. Many states ,do this why not VA	Miscellaneous	Thank you for your comment. Your comment will be shared with VDGIF Law Enforcement Division.	17

Location	Comment	Goal Area	DGIF Response	#
Chesterfield	We should encourage people to fly fish and Tenkara Fly fish more and offer more courses. Also a Macroinvertebrate and water chemistry course would be great to better educate anglers and the Youth.	Miscellaneous	VDGIF welcomes opportunities for partnerships to develop workshops on fishing and aquatic ecology. Please visit http://www.dgif.virginia.gov/education/fishing/ for more information.	18
Chesterfield	All wild trout under 12 inches must be released immediately unharmed	Miscellaneous	The VSTMP does not address wild trout management.	19
Chesterfield	Only 4 fish a day may be caught in put and take area	Miscellaneous	Although there are no current plans to change the daily creel limit on put and take waters, that option can be addressed during the biennial regulations review.	20
Chesterfield	Only some put and take streams are bait fishing	Miscellaneous	Currently there are no gear restrictions on all put and take waters.	21
Chesterfield	Trible hooks should not be allowed to reduce false hooking or people trying to illegally snaring the fish by stripping the trible hook through the water.	Miscellaneous	When properly used, treble hooks cause no more mortality than other types of hooks. If you see a wildlife violation please call our Wildlife Crime Hotline at 1-800-237-5712.	22
Covington	Regarding declining trout license sales. I cant comment for many anglers, but I havent bought mine this year because of the change in regulations at Hidden Valley special regulation area. Allowing treble hooks to be used there has decimated the trout population. I used to fish there year round, but there are so few trout in the river now, its a waste of a time to fish there. Even if the trout are released, most dont survive. Local fly fishermen have so few places to fish in this area and this has a big impact on them.	Miscellaneous	Published research studies have documented no significant difference in hooking mortality of trout caught using either single-hook artificial lures or multiple-hook artificial lures.	23

Location	Comment	Goal Area	DGIF Response	#
Culpeper	I think it would be beneficial to stock some fingerling trout. The trout fishing is relatively good but could improve if fish are stocked that are short and able to reproduce to help build a good population.	Miscellaneous	See Fingerling Stocking Program section in VSTMP.	24
Fairfax County	Nova is where the people are. Some of us even buy trout licenses. We are not getting enough. I am not talking about a fair share, we do not have the best trout habitat but what we get from VDGIF is absurd.	Miscellaneous	VDGIF is currently investigating new stocked trout waters and seeking new partnerships in Northern Virginia	25
Fauquier	I would also like to see more trout fishing places and an expansion of the lake at Thompsons wildlife area to include the upper half above the current lake	Miscellaneous	There is insufficient stream habitat upstream of Lake Thompson to warrant stocking.	26
Franklin County	Less people are buying licenses but still fishing without one. The chances of getting caught by a game warden are minimal these days	Miscellaneous	Conservation Police Officers consistently patrol our stocked trout waters.	27
Franklin County	People are following the trucks that stock trout and immediately cleaning out the streams by catching and keeping coolers full at a time	Miscellaneous	There is no way to prevent anglers from following the stocking truck. However, if you see a wildlife violation please call our Wildlife Crime Hotline at 1-800-237-5712.	28
Giles	Please consider: all trout caught which are of legal length in stocked streams must be creeled. This will eleminate overfishing by the guys who make it a habit to catch and release as many fish as they can before they leave the stream	Miscellaneous	Trout can be caught and released multiple times and provide more recreation.	29
Grayson	I also said we should try to talk to land owners to see if we could get some streams opened back up that used to be stocked	Miscellaneous	VDIGF continues to support efforts to open up new stocked trout waters.	30

Location	Comment	Goal Area	DGIF Response	#
Henrico	The urban program is nice but are you really selling enough trout licenses to fully fund the program.	Miscellaneous	VDGIF is currently evaluating costs and benefits of the entire stocked trout management program. However, the urban program is an integral part of our recruitment and retention objectives outlined in the VSTMP.	31
Henrico	Heritage day is a disaster with huge crowds because there are no other streams near.	Miscellaneous	The opening day experience is desired by some anglers. Gaining landowner permission to add new Heritage Day waters has been challenging. See Objective 3 under Stocking Announcements in the VSTMP.	32
Henry	Some counties have several bodies of water that receive 8 stockings. Why only 5 for the upper Smith river?	Miscellaneous	Biologists decided that stocking the upper Smith River 8 times would be too strenuous on the resident wild brown trout population.	33
Henry	I wish that trout stocking extended into june and july. I go to nc and ky during the summer. Maybe summer stocking would give to tourism.	Miscellaneous	The vast majority of VDGIF stocked trout waters cannot support trout in the summer due to warm water temperatures.	34
Henry	If brown trout in citation sizes were stocked in Smith River it would create more interest as currently brooks and rainbows are stocked and residents are hoping to eventually have a brown trout population that reaches citation sizes. If implemented, there may be a renewed interest in a river that was once considered a Trophy Trout stream.	Miscellaneous	Trophy trout fisheries are being considered in several places. See Objective 2 under Recreational Opportunities in the VSTMP.	35
Out of state	Can you tell me about the little pond near boo Williams sports complex in Hampton, VA?	Miscellaneous	Armistead Point Pond was added to the Urban Trout Program in 2015. It will be stocked with trout 5 times from November - April.	36

Location	Comment	Goal Area	DGIF Response	#
Out of state	why ask for public comment? vdgif does what they want regardless of public opinion. just look at the new bear tag fee that passed with an over 2 t0 1 ratio against it.	Miscellaneous	The values and goals presented in the VSTMP were developed primarily based on stakeholder input. Many of the strategies were adjusted as a result of stakeholder input.	37
Patrick	One of the best improvements, other than possibly bigger fish, would be to mark the streams with the yellow signs like they were once marked in the past. (fish below here or above here, etc.). The computer maps dont show enough detail in where to fish	Miscellaneous	Better online maps are being developed to assist with directing anglers to our stocked trout waters. Please visit http://dgif-virginia.maps.arcgis.com/apps/webappviewer/index.html?id=441ed456c8664166bb735b1db6024e48 for more information. Our current metal signs are color coded to better inform anglers about regulations.	38
Roanoke County	Stock late in the day instead of early morning; may have to adjust the announcement accordingly.	Miscellaneous	The opportunity to stock later in the day is being done when possible	39
Rockbridge	I would like to see more late week and Saturday stockings. I work during the week and often find that when I go fishing of the evenings the fish are already gone from people who do not work I also would like to see January and February stockings stopped to give the fish more time to grow.	Miscellaneous	Recent creel surveys indicate that stocked trout waters are not fished out up to a month after stocking (See Figure 12 in VSTMP). VDGIF does attempt to stock some waters in the evening where logistically possible.	40
Rockingham	Stock smaller trout for smaller streams or for feasibilty and cost savings purposes is do away with small streams and double up frequency of stocking larger streams in counties where applicable	Miscellaneous	VDGIF has collected valuable creel survey data from 17 stocked trout waters and will use this information to justify any changes to stocking numbers and locations.	41
Rockingham	The problems I have with the VA trout stocking program is the streams arent stocked often enough, too few fish when they are stocked	Miscellaneous	A recent study found that VDGIF stocks trout at higher densities than levels published for stocked trout in other states.	42

Location	Comment	Goal Area	DGIF Response	#
Suffolk	Urban waters are a complete waste of money and a strain on an already tightened budget	Miscellaneous	The urban program is an integral part of our recruitment and retention objectives outlined in the VSTMP. VDGIF is currently evaluating costs and benefits of the entire stocked trout management program.	43
Virginia Beach	What species of trout are stocked? Looked all over the website but couldnt find anything.	Miscellaneous	Brook Trout, Brown Trout, and Rainbow Trout	44
Chesterfield	We need a lot more catch & release with single hook with it debarded	Recreational Opportunities	Expansion of special regulation fishing opportunities is proposed in the VSTMP. See Objectives 1 and 2 under Recreational opportunities.	45
Covington	I also would like to see the delayed harvest program expanded to include more streams	Recreational Opportunities	Expansion of the delayed harvest program is proposed in the VSTMP. See Objectives 1 and 2 under Recreational opportunities.	46
Franklin County	To improve angler satisfaction with trout fishing and management you can stock more trout and bigger trout. Maybe make the stocking longer (maybe start in mid to late September	Recreational Opportunities	The VDGIF hatchery system is currently at maximum production capacity. In order to meet management objectives, VDGIF can produce more trout of smaller average size, or fewer fish of larger average size. It is not possible with existing facilities to produce more and larger fish. Most waters are still too warm for trout in late September.	47
Greene	Hopefully this plan will allow for more evenly distributed delayed harvest and trophy streams. At my age and health condition it is difficult to find a wild fish stream I can access easily	Recreational Opportunities	Expansion of special regulation fishing opportunities is proposed in the VSTMP. See Objectives 1 and 2 under Recreational opportunities.	48

Location	Comment	Goal Area	DGIF Response	#
Henrico	You need to get the Jackson River below Gathright Dam back to all fish for fun. This was a great fishery that could return if managed	Recreational Opportunities	The Jackson River Tailwater currently hosts an exceptional wild Rainbow Trout and Brown Trout fishery.	49
Henrico	Make the South River permanent catch and release for trout stocking program	Recreational Opportunities	Expansion of special regulation fishing opportunities is proposed in the VSTMP. See Objectives 1 and 2 under Recreational opportunities.	50
Loudoun	I would love to see all special regulation water managed as catch and release, barbless hook	Recreational Opportunities	See Objectives 1 and 2 under Recreational opportunities in VSTMP.	51
Mecklenburg	Make the South River delayed harvest catch and release year-around and fly fishing only!	Recreational Opportunities	Expansion of special regulation fishing opportunities is proposed in the VSTMP. See Objectives 1 and 2 under Recreational opportunities.	52
Montgomery	I would like to see VDGIF develop a trout program not only tailored to those looking to catch fish (i.e. through heavier, more frequent stocking) but also those looking for the trout fishing experience. I recently fished in North Carolina and was very impressed with their trout management. Special rivers were designated for catch and release and/or fly fishing only where anglers could enjoy the trout fishing experience, including: remote, private rivers with native or established trout, etc	Recreational Opportunities	Expansion of special regulation fishing opportunities is proposed in the VSTMP. See Objectives 1 and 2 under Recreational opportunities.	53
Nelson	VDGIF should substantially increase delayed harvest waters for this reason, also because catch-and-release fishermen put much less stress on the resources and environment.	Recreational Opportunities	Expansion of the delayed harvest program is proposed in the VSTMP. See Objectives 1 and 2 under Recreational opportunities.	54

Location	Comment	Goal Area	DGIF Response	#
Nelson	eliminate delayed harvest areas, and convert to year-round catch and release. most of our delayed harvest streams will hold some fish over, and those that perish will provide nutrients to the watershed	Recreational Opportunities	Expansion of special regulation fishing opportunities is proposed in the VSTMP. See Objectives 1 and 2 under Recreational opportunities.	55
Nelson	increase number of catch and release waters. our neighboring states have demonstrated that this type of management leads to an increase in trout per mile, and are much sought by fly fishermen	Recreational Opportunities	Expansion of special regulation fishing opportunities is proposed in the VSTMP. See Objectives 1 and 2 under Recreational opportunities.	56
Richmond County	I think the inclusion of more trophy size trout would draw more people to our trout streams.	Recreational Opportunities	See Objectives 1 and 2 under Recreational opportunities in VSTMP.	57
Roanoke County	Overall pleased with the proposed changes to the program but would support taking in more special regulations (single hook artificial lures or fly fishing only) type waters or converting more waters to special regulations	Recreational Opportunities	Expansion of special regulation fishing opportunities is proposed in the VSTMP. See Objectives 1 and 2 under Recreational opportunities.	58
Rockingham	on Delayed Harvest waters change hook regulations to artificial lures, single, barbless hook only	Recreational Opportunities	Published research studies have documented no significant difference in hooking mortality of trout caught using either single-hook artificial lures or multiple-hook artificial lures.	59
Smyth	I would like to see more places for the older fishermen to access.	Recreational Opportunities	By focusing on improving access more opportunities will be created (as specified in Objective 3 of Recreational Opportunities).	60
Suffolk	Please continue to stock fee fishing areas	Recreational Opportunities	We will. Thanks for your Comment.	61
Warren	There should be a Handicapped day at all the smaller lakes (ie. Clearbrook in Winchester for example) . They can only get to certain places most streams have no HDCP	Recreational Opportunities	By focusing on improving access more opportunities will be created (as specified in Objective 3 of Recreational Opportunities).	62

Location	Comment	Goal Area	DGIF Response	#
Chesterfield	We need to get into the classroom and get started early with our youth to instill the importance of stewardship, trout streams, fly fishing, and reporting violators. This way we develop the next generation of ethical sportsmen and sportswomen.	Recruitment and retention	See Objective 1 under Recruitment and Retention in the VSTMP.	63
Fairfax County	License fees are too high especially for nonresidents. Do we want visitors or not?	Recruitment and retention	VDGIF is currently evaluating the entire license structure including non-resident licenses.	64
Henrico	The youth days are nice but it takes trout away from those who pay for the program and eliminates one stocking. This past year on Hawksbill Creek in Page County you had Heritage day and youth day back to back Saturdays and then no stocking for over a month. On the youth day there are more adults fishing than youth during the youth closure	Recruitment and retention	Youth days are important for the future of the program because they introduce youth to trout fishing. Dates for youth events are scheduled by sponsors but VDGIF can work with sponsors on future events. If you see a wildlife violation like adults fishing on youth day please call our Wildlife Crime Hotline 1-800-237-5712.	65
Roanoke County	There needs to be more stockings set up so parents can take their kids fishing on Saturday mornings and know their kids have a really good chance of catching fish. Maybe have announced stockings on Friday evenings	Recruitment and retention	See Objective 1j under Recruitment and Retention and Objectives 2 and 3 under Stocking Announcements in the VSTMP.	66

Location	Comment	Goal Area	DGIF Response	#
Stafford	GOOD AFTERNOON,I WOULD LIKE TO FIRST CONGRAULATE THE (VDGIF) in its efforts to bring fishing to the YOUTHS OF TODAY.I AM AFFILATED WITH A NON PROFIT ORGANIZATION THAT ARE SEEKING TO EDUCATE AT RISK CHILDREN.MOSTLY THRU FISHING AND BOATING,TO KEEP THEM AWAY FROM SOCIAL MEDIA AND VIOLENT VIDEO GAMES.I WOULD LIKE TO GET MORE INFO FROM YOU SO WE CAN GET OUR CENTER INVOLVED ON A VOLUNTARY MISSION TO GET THESE KIDS INVOLVED.	Recruitment and retention	VDGIF would be happy to support and partner with your program.	67
Allegheny	Virginia's streams are not stocked frequently enough to satisfy me. I work full time, and by the time I get to fish (on off days), most of the fish are gone. People following stocking trucks are a terrible problem. This could be addressed by stocking at night, or at least late in the afternoon.	Stocking Announcements	Recent creel surveys indicate that angler catch rates remain high 30 days after stocking (See Figure 12 in VSTMP). VDGIF does attempt to stock some waters in the evening where logistically possible.	68
Appomattox	Ever since the State took away Opening Day for Trout Season, trout fishing been on the decline. It has only gotten worse since that was done. It took away all the hoop-la that goes with opening day	Stocking Announcements	Past surveys indicate support for a year-round season. Greater hatchery efficiency in a year-round season. Year-round season allows for stocking at other optimal times. Landowner preference for a year-round season. Recent surveys indicate that the majority of stocked trout anglers would not support bringing back an opening day. However, see Objectives 2 and 3 under Stocking Announcements in VSTMP.	69

Location	Comment	Goal Area	DGIF Response	#
Augusta	One thing that could be changed is stocking days. Most of the time the trout are stocked on days that the working man cannot fish. Most of the fish are being caught by retired people. Many times I have witness retired people taking over their limit of fish. The go back to their vehicles change a hat and come back and sit right down beside you to fish again after they have caught their limit. This frustrates me due to the fact that I do not get to fish during the week. When I do get to fish on stocked days I have noticed many violations. By the time the common working man gets to fish on Saturday or Sunday the fish are fished out	Stocking Announcements	Recent creel surveys indicate that angler catch rates remain high 30 days after stocking (See Figure 12 in VSTMP). VDGIF does attempt to stock some waters in the evening where logistically possible. VDGIF does attempt to stock some waters in the evening where logistically possible. See Objective 3 under Stocking Announcements in the VSTMP. If you see wildlife violations, please call our Wildlife Crime Hotline. 1-800-237-5712.	70
Augusta	Folks generally plan advanced fishing trips around weekends. So rather than announce the actual day of the stocking, announce a range of days the stocking could occur. For example, using this years calendar, "The week of March 16th, Elkhorn Lake will be stocked between the 18th and the 20th	Stocking Announcements	See Objective 3 under Stocking Announcements in the VSTMP.	71
Campbell	I live in an area with few stocked waters and the few we have get a lot of pressure from the stocking truck followers. This means I drive 100 or so miles to find water with adequate trout numbers available on the Saturdays and Sundays I have off. I would just like a fair chance to catch trout. That is all, just a fair chance.	Stocking Announcements	See Objective 3 under Stocking Announcements in the VSTMP.	72

Location	Comment	Goal Area	DGIF Response	#
Campbell	On large streams that are stocked 8 times a year, such as the Jackson River, 2 or 3 stockings should be announced in advance to allow people to plan to take off work, plan and travel to the site. A week or at least 3 days.	Stocking Announcements	See Objective 3 under Stocking Announcements in the VSTMP.	73
Campbell	The number of trout stocked should also be published so an angler can determine if it is worth his trouble and expense to travel to the stocked stream	Stocking Announcements	VDGIF is planning to be more transparent regarding stocking numbers. See Objective 5 under Stocking Announcements.	74
Covington	I do not agree with the present format for advertising the stocking locations on a daily basis. I work full time and feel like I am put at a disadvantage by having to (fish for the leftovers). I feel like a weekly announcement would be adequate and would take the pressure off of popular and convenient fishing locations	Stocking Announcements	See Objectives 1-4 under Stocking Announcements in the VSTMP. VDGIF is striving to diversify our stocking announcements.	75
Highland	It sure would be nice to see them opening day comeback	Stocking Announcements	Past surveys indicate support for a year-round season. Greater hatchery efficiency in a year-round season. Year-round season allows for stocking at other optimal times. Landowner preference for a year-round season. Recent surveys indicate that the majority of stocked trout anglers would not support bringing back an opening day. However, see Objectives 2 and 3 under Stocking Announcements in VSTMP.	76
Out of state	I would like to see the early trout sticking program have a monthly sticking schedule	Stocking Announcements	See Objective 3 under Stocking Announcements in the VSTMP.	77

Location	Comment	Goal Area	DGIF Response	#
Out of state	I would also like to see Virginia go back to a opening day, like it was years ago. I think there would be more licenses sold and more people interested again if it was like that.	Stocking Announcements	Past surveys indicate support for a year-round season. Greater hatchery efficiency in a year-round season. Year-round season allows for stocking at other optimal times. Landowner preference for a year-round season. Recent surveys indicate that the majority of stocked trout anglers would not support bringing back an opening day. However, see Objectives 2 and 3 under Stocking Announcements in VSTMP.	78
Patrick	When opening day of trout season was done away with it ruined trout fishing in Patrick County. The history and culture of this great opening day event was lost. Bring back opening day and you will see increased license sales and increased money being spent with local merchants.	Stocking Announcements	VDGIF needs landowner permission before adding new stocked trout waters. Past surveys indicate support for a year-round season. Greater hatchery efficiency in a year-round season. Year-round season allows for stocking at other optimal times. Landowner preference for a year-round season. Recent surveys indicate that the majority of stocked trout anglers would not support bringing back an opening day. However, see Objectives 2 and 3 under Stocking Announcements in VSTMP.	79

Location	Comment	Goal Area	DGIF Response	#
Roanoke County	Bring back opening day in April	Stocking Announcements	Past surveys indicate support for a year-round season. Greater hatchery efficiency in year-round season. Year-round season allows for stocking at other optimal times. Landowner preference for the year-round season. Recent surveys indicate that the majority of stocked trout anglers would not support bringing back an opening day. However, see Objectives 2 and 3 under Stocking Announcements in VSTMP.	80
Roanoke County	What about putting a moratorium on stocked waters for 24 hours after a stocking?	Stocking Announcements	Closing stocked waters is being evaluated. See Objective 3 Strategy F under Stocking Announcements in the VSTMP.	81
Roanoke County	Please consider closing waters that have been stocked for 1-2 days after stocking. This would eliminate waters becoming immediately after being stocked	Stocking Announcements	Closing stocked waters is being evaluated. See Objective 3 Strategy F under Stocking Announcements in the VSTMP.	82
Roanoke County	Announce the stocking in advance and close the creek to fishing until the next day.	Stocking Announcements	Closing stocked waters is being evaluated. See Objective 3 Strategy F under Stocking Announcements in the VSTMP.	83
Rockbridge	There has to be someway to eliminate the truck followers.	Stocking Announcements	No strategy will eliminate people following the stocking truck. Closing stocked waters is being evaluated. See Objective 3 Strategy F under Stocking Announcements in the VSTMP.	84
Rockbridge	I would like to see the daily stocking report changed to weekly.	Stocking Announcements	The VSTMP contains objectives and strategies under Stocking Announcements that attempts to satisfy a diversity of stocked trout anglers.	85

Location	Comment	Goal Area	DGIF Response	#
Rockingham	The reason licenses sales are because there are a lot of people like me who love to trout fish but have quit because of the way the stocking program is no it's impossible for a working man to have a chance you hardly put any trout in and the ones you do stock is during the week when we are at work and the other reason is the trout are so small. I think they need to go back to the opening day again in stead of the way it is now where people like me who work every day don't stand a chance and when you stock them put some trout in not minnows	Stocking Announcements	VDGIF developed the VSTMP to address your concerns.	86
Scott	I would like to see more area creeks and streams stocked. Would like to have an area closer so I could fish after work hours. I would like to see year round stockings, if possible. As far as announcements, I like the current method - but people do follow the stocking trucks, so some of us don't have an opportunity to catch fish due to this.	Stocking Announcements	Recent creel surveys indicate that angler catch rates remain high 30 days after stocking (See Figure 12 in VSTMP). VDGIF does attempt to stock some waters in the evening where logistically possible. VDGIF does attempt to stock some waters in the evening where logistically possible. See Objective 3 under Stocking Announcements in the VSTMP.	87
Warren	No Stream that is Stocked can be fished until Sunrise the following morning. This eliminates the Cheaters and the truck followers. This gives everyone an even chance.	Stocking Announcements	No strategy will eliminate people following the stocking truck. Closing stocked waters is being evaluated. See Objective 3 Strategy F under Stocking Announcements.	88

Location	Comment	Goal Area	DGIF Response	#
Washington	Some stocking should to be moved to later days in the week.Those of us who work monday thru friday for a living must fish the weekends.It seems most stocking happens on tuesdays or weds.It would be nice to fish a sat or sun and have as much a chance at "numbers" as those who can go fishing as they please	Stocking Announcements	Recent creel surveys indicate that angler catch rates remain high 30 days after stocking (See Figure 12 in VSTMP). VDGIF does attempt to stock some waters in the evening where logistically possible. VDGIF does attempt to stock some waters in the evening where logistically possible.	89
Comments received during public meetings Sept-Oct. 2015				
	Do not stock on any native brook trout streams	Ecosystem Effects	Consistent with the goal for the issue of ecosystem effects (optimizing recreational opportunities while minimizing adverse impacts), no new Class I or II wild trout waters will be added to the stocked trout program. The use of triploid (sterile) will be investigated when stocking over current wild fisheries. Wild trout streams that are currently being stocked that provide popular recreational opportunities will be evaluated on a case-by-case basis.	90
	Stocked rainbows outcompete native brook trout	Ecosystem Effects	See objective 1-d under ecosystem effects. Wild trout streams that are currently being stocked to provide additional recreational opportunities will be evaluated on a case-by-case basis.	91

Location	Comment	Goal Area	DGIF Response	#
	Triploid trout still compete	Ecosystem Effects	See objective 1-d under ecosystem effects. Wild trout streams that are currently being stocked to provide additional recreational opportunities will be evaluated on a case-by-case basis.	92
	Have you considered not stocking on brook trout at all and not just the Class I and II waters?	Ecosystem Effects	See objective 1-d under ecosystem effects. Wild trout streams that are currently being stocked to provide additional recreational opportunities will be evaluated on a case-by-case basis.	93
	Try and find new warmwater streams to stock and use fish that are currently being stocked over wild/native trout	Ecosystem Effects	See objective 1-d under ecosystem effects. Wild trout streams that are currently being stocked to provide additional recreational opportunities will be evaluated on a case-by-case basis.	94
	Like the idea of publishing a report	Funding and Administration	See Objective 2 under Funding and Administration	95
	Does trout license pay for program?	Funding and Administration	Trout license revenue funds the stocked trout program. A study is currently underway to determine the fiscal stability of the program. See objective 1 under Funding and Administration.	96
	Will public be able to see the “balance sheet” associated with the stocked	Funding and Administration	See objectives 1&2 under Funding and Administration; this is part of the stocked trout evaluation	97
	Should have to buy a trout license to fish all stocked waters – including fingerling stockings	Funding and Administration	See objective 1a,d under Funding and Administration	98
	Need to look at ways of conserving money not just looking for new monies	Funding and Administration	See objective 1 under funding and administration	99

Location	Comment	Goal Area	DGIF Response	#
	Let some streams go wild to conserve money	Funding and Administration	See objective 1 under funding and administration. Most stocked trout waters cannot support trout year round.	100
	Seek sponsorships in Trout Guide to generate revenue	Funding and Administration	Currently VDGIF allows for advertising in our Freshwater Fishing Guide	101
	Would like automatic renewal of trout license	Funding and Administration	VDGIF will be evaluating its current licensing structure.	102
	Send reminders of license and renewals	Funding and Administration	VDGIF will be evaluating its current licensing structure.	103
	Willing to pay more for a quality experience	Funding and Administration	VDGIF will be evaluating its current licensing structure.	104
	The cost of a lifetime license for age 65+ is too cheap	Funding and Administration	VDGIF will be evaluating its current licensing structure.	105
	Eliminate stockings on really small (C) streams	Funding and Administration	Our stocked C waters are a significant resource to trout anglers. 32% of anglers surveyed in recent stocked trout creel surveys indicate they prefer to fish in small streams. 31% prefer large streams, 18% prefer lakes, and 19% had no preference.	106
	Handicapped license is a good deal	Funding and Administration	VDGIF will be evaluating its current licensing structure.	107
	Scale the disabled vet license based on disability	Funding and Administration	VDGIF will be evaluating its current licensing structure.	108
Augusta	Is catch-and-release a good idea in stocked trout waters?	Miscellaneous	Trout can be caught and released multiple times and provide more recreation. Gear restrictions would be necessary to reduce hooking mortality.	109
	Fish need to be scattered better – can we use volunteers to help?	Miscellaneous	VDGIF currently uses volunteers through the Complementary Work Force Program. Staff and volunteers work diligently to spread out fish throughout our stocked trout waters. Please visit http://www.dgif.virginia.gov/volunteer/#cwf for more information.	110

Location	Comment	Goal Area	DGIF Response	#
	Can you stock at night?	Miscellaneous	Concerns for staff safety prevent VDGIF from stocking at night.	111
	Stock later in the day	Miscellaneous	VDGIF stocks some waters in the afternoon when feasible.	112
	Non-residents pay too much – need a trip license (3 or 5 day) for non-residents	Miscellaneous	VDGIF will be evaluating its current licensing structure.	113
	Keep non-resident license high but offer a trip license	Miscellaneous	VDGIF will be evaluating its current licensing structure.	114
Augusta	Convert South River to catch and release/trophy	Recreational Opportunities	See objective 1&2 under Recreational Opportunities.	115
Augusta	Add fly fishing only to objective 1	Recreational Opportunities	See objective 1-c under recreational opportunities	116
Augusta	There is only one fly fishing only stream – need more, maybe South River	Recreational Opportunities	See objective 1&2 under Recreational Opportunities.	117
Augusta	Fly fishing is on the rise – need more special regulation areas	Recreational Opportunities	See objective 1&2 under Recreational Opportunities.	118
Augusta	Fly fishing only excludes spin fishermen	Recreational Opportunities	Fly-fishing only regulations exclude spin anglers. However, recent surveys indicate that anglers desire more special regulation waters, which could include fly fishing only sections.	119
Augusta	Fly fishing only on South River would upset a lot of people	Recreational Opportunities	Thank you for your comment, but these issues were not addressed in the VSTMP. Your comments will be shared with VDGIF aquatics staff.	120
Augusta	Need better balance to meet diverse preferences identified in the Plan	Recreational Opportunities	See objective 1&2 under Recreational Opportunities.	121
Augusta	South River can be managed for fly fishing and single hook artificial	Recreational Opportunities	See objective 1&2 under Recreational Opportunities.	122
Augusta	Increase the number of delayed harvest waters	Recreational Opportunities	See objective 1&2 under Recreational Opportunities.	123
Augusta	Greenways are great places to expand ADA access	Recreational Opportunities	See objective 3-c under Recreational Opportunities	124
Augusta	More access and opportunities for handicapped and disabled veterans	Recreational Opportunities	See objective 3-c under Recreational Opportunities	125

Location	Comment	Goal Area	DGIF Response	#
	ADA areas would help	Recreational Opportunities	See objective 3-c under Recreational Opportunities	126
	Provide diverse opportunities by modeling after private fisheries	Recreational Opportunities	See objective 1 and 2 under recreational opportunities.	127
	Whitetop Laurel would be a good candidate for special regulations	Recreational Opportunities	Currently there are two special regulation sections on White Top Laurel Creek. See objective 1&2 under Recreational Opportunities.	128
	Delayed harvest streams – need more stockings and more fish per stocking	Recreational Opportunities	VDGIF has collected valuable creel survey data from 17 stocked trout waters and will use this information to justify any changes to stocking numbers and locations.	129
	Some of the best stocked waters have special regulation waters adjacent to them – lets fish spread out and provides some protection	Recreational Opportunities	VDGIF will investigate developing more streams containing both general put and take and special regulation reaches.	130
	Would like to see more delayed harvest and catch-and-release waters	Recreational Opportunities	See objective 1&2 under Recreational Opportunities.	131
	Look at how West Virginia markets program to youth	Recruitment and Retention	VDGIF plans to investigate youth fishing marketing strategies used by other states across the country.	132
	Must get parents involved to get kids involved	Recruitment and Retention	See objective 5 under Recruitment and Retention	133
	Great ideas in Plan for getting youth involved	Recruitment and Retention	See objective 1 under Recruitment and Retention	134
	Market trout fishing in schools	Recruitment and Retention	See objective 1-l under Recruitment and Retention	135
	Pigg River and Buchanan youth days a huge success	Recruitment and Retention	See objective 1-c under Recruitment and Retention	136
	Stock Friday – kids only on Saturday	Recruitment and Retention	See objective 1-j under Recruitment and Retention and objective 3-f under Stocking Announcements	137
	Would like to see youth-only Heritage Day on Upper Pedlar	Recruitment and Retention	See objective 1-d, e, f under Recruitment and Retention	138

Location	Comment	Goal Area	DGIF Response	#
	Kids don't want to get off the couch – need to catch fish to get interested	Recruitment and Retention	See objective 1 & 5 under Recruitment and Retention	139
	Kids wont go fishing without a mentor	Recruitment and Retention	A mentorship program is not mentioned in the VSTMP. However, VDGIF currently has a fishing education program through the outreach department	140
	Kids will get interested if they catch fish	Recruitment and Retention	See objective 1 under recruitment and retention provides ample opportunities for youth anglers	141
	Every stream could have a kids day once per year	Recruitment and Retention	See objective 1-d,e,f under recruitment and retention.	142
	Like the Heritage Day youth option but need more Heritage Days	Recruitment and Retention	See objective 1 and 2 under recreational opportunities.	143
	Lots of competition for kids time but success breeds success	Recruitment and Retention	See objective 1 under Recruitment and Retention	144
	Good idea to target urban areas but also target FFA kids in rural areas	Recruitment and Retention	See objective 1&5 under Recruitment and retention	145
	Follow up with kids after events	Recruitment and Retention	VDGIF plans to evaluate the success of recruiting youth anglers.	146
	Virginia has "fishing in the classroom" – one of 9 states	Recruitment and Retention	VDGIF's Outreach Department is involved in this program. See objective 1-K,L under Recruitment and Retention.	147
	Trout in the classroom – good way to introduce kids to biology of trout	Recruitment and Retention	VDGIF is in full support of expanding the Trout in the Classroom Program.	148
	Think beyond kids < 16 – target college students	Recruitment and Retention	See objective 2-d, 3-e and 5 under Recruitment and Retention	149
	Non-residents wont buy license	Recruitment and Retention	See objective 4 under Recruitment and Retention	150
	Do follow-up surveys to measure economic impact of non-resident trout fishing	Recruitment and Retention	See objective 4-b, d under Recruitment and Retention	151
	Promote in other states	Recruitment and Retention	See objective 4e,f and 5 under Recruitment and Retention	152

Location	Comment	Goal Area	DGIF Response	#
	Need a trip license for non-residents	Recruitment and Retention	VDGIF will be evaluating it's current licensing structure.	153
	Attracting military will help demographics	Recruitment and Retention	See objective 3h and 5 under Recruitment and Retention	154
	Do not announce at 4 PM – only helps truck followers	Stocking Announcements	See Goal Statement and objectives 1-4 under Stocking Announcements in VSTMP. A diversity of stocking announcement scenarios are being considered.	155
	Announce earlier in the day (noon or 2PM)	Stocking Announcements	See Goal Statement and objectives 1-4 under Stocking Announcements in VSTMP. A diversity of stocking announcement scenarios are being considered.	156
	Announcing at 4PM is too late – some people not buying licenses because of that	Stocking Announcements	See Goal Statement and objectives 1-4 under Stocking Announcements in VSTMP. A diversity of stocking announcement scenarios are being considered.	157
	Like it the way it is	Stocking Announcements	See Goal Statement and objectives 1-4 under Stocking Announcements in VSTMP. A diversity of stocking announcement scenarios are being considered.	158
	Communication and social media causes folks in the loop to get most of the access to the fish	Stocking Announcements	See Goal Statement and objectives 1-4 under Stocking Announcements in VSTMP. A diversity of stocking announcement scenarios are being considered.	159
	Don’t announce at 4PM day of stocking – wait 3 days	Stocking Announcements	See Objective 3 under Stocking Announcements in VSTMP.	160
	Current system not fair for people who have to travel (Richmond)	Stocking Announcements	See Goal Statement and objectives 1-4 under Stocking Announcements in VSTMP. A diversity of stocking announcement scenarios are being considered.	161

Location	Comment	Goal Area	DGIF Response	#
	Really like closing for 1-day on test waters	Stocking Announcements	See Objective 3 Strategy f under Stocking Announcements in VSTMP.	162
	Do not allow fishing until 5PM day of stocking or the next day	Stocking Announcements	See Objective 3 under Stocking Announcements in VSTMP.	163
	Pre-announce all sites	Stocking Announcements	VDGIF plans to evaluate pre-announced stockings. See Objective 3 under Stocking Announcements in VSTMP.	164
	Test more than 2 sites per region – not enough of a sample	Stocking Announcements	The VSTMP mentions testing a "minimum" of two waters per region.	165
	Put stocking schedule out ahead of time	Stocking Announcements	VDGIF plans to evaluate pre-announced stockings. See Objective 3 under Stocking Announcements in VSTMP.	166
	No such thing as unannounced stockings; in favor of closing streams day of stocking	Stocking Announcements	See Objective 3 under Stocking Announcements in VSTMP.	167
	Problems with enforcement on closing streams	Stocking Announcements	The added burden of stream closings on Law Enforcement has been discussed throughout the planning process of the VSTMP.	168
	Only 6 prior announced streams not enough	Stocking Announcements	The VSTMP mentions testing the feasibility, logistics, and popularity of adding more announced waters.	169
	Announcement needs to be early enough so people can plan (one week)	Stocking Announcements	VDGIF plans to evaluate pre-announced stockings. See Objective 3 under Stocking Announcements in VSTMP.	170
	Some confusion on how many stockings will get announced and how many times	Stocking Announcements	The VSTMP mentions testing a "minimum" of two waters per region to test prior announcements. See objective 3-g under stocking announcements in the VSTMP	171

Location	Comment	Goal Area	DGIF Response	#
	The announced stockings would be just like opening day	Stocking Announcements	Correct, these announced stockings will have a similar atmosphere to opening day. Recent surveys indicate a desire for more announced stockings.	172
	Like the idea of prior announcement on 6 sites but changing two things at once isn't a good idea – keep number stocked the same	Stocking Announcements	VDGIF currently stocks 50% more fish for Heritage Day stockings and plans to do the same for additional pre-announced stockings.	173
	Closing sites for 1-day sounds like an enforcement nightmare	Stocking Announcements	The added burden of stream closings on Law Enforcement has been discussed throughout the planning process of the VSTMP.	174
	Announce at start of week for test waters	Stocking Announcements	VDGIF plans to evaluate pre-announced stockings. See Objective 3 under Stocking Announcements in VSTMP.	175
	Might be hard to find sites that are safe	Stocking Announcements	VDGIF plans to evaluate pre-announced stockings. See Objective 3 under Stocking Announcements in VSTMP. Safety will be taken into consideration during the selection process.	176
	Need to consider if streams are mainly catch-and-release – wouldn't be a good idea for prior announcement – match site type with program	Stocking Announcements	Preannounced stockings will only be used on general put and take waters.	177
	Announced stockings during school breaks is a good idea	Stocking Announcements	See objective 3-e under Stocking Announcements in the VSTMP	178
	What is the cost of enforcement on 1-day closures?	Stocking Announcements	An estimated $500-$1500 per day depending on multiple variables.	179
	No such thing as unannounced stockings	Stocking Announcements	The VSTMP addresses multiple stocking announcement strategies.	180
	Like unannounced stockings	Stocking Announcements	See objective 1 under Stocking Announcements in the VSTMP	181

Location	Comment	Goal Area	DGIF Response	#
	Would like to see more Saturday stockings	Stocking Announcements	VDGIF currently stocks on Saturdays. VDGIF is currently looking into the feasibility of adding more Saturday stockings.	182
	Announce at least a week ahead of time to get more families involved	Stocking Announcements	See Objective 3 under Stocking Announcements in VSTMP.	183
Comments received via letter				
TU	The stocking of trout over native populations is detrimental and should be stopped. Currently the plan lacks clarity on when and where the stocking of trout does not conflict with the strategy to protect and restore native trout populations.	Ecosystem Effects	Consistent with the goal for the issue of ecosystem effects (optimizing recreational opportunities while minimizing adverse impacts), no new Class I or II wild trout waters will be added to the stocked trout program. The use of triploid (sterile) will be investigated when stocking over current wild fisheries. Streams that are currently being stocked to provide additional recreational opportunities will be evaluated on a case-by-case basis.	184
TU	Recommend including private trout stocking practices and VDGIF's review and approval process in the VSTMP.	Ecosystem Effects	The VSTMP specifically addresses hatchery-reared trout that VDGIF stocks into publically accessible waters.	185
USFS	Objective 4 under ecosystem effects should mention using forest stamp funds to manage or mitigate resource damage.	Ecosystem Effects	Amended objective 4 under ecosystem effects.	186
USFS	Examples of forest stamp funds utilized for objective 4 in Ecosystem Effects should be included in objective 2 under Funding and Administration.	Funding and Administration	Amended objective 2 under Funding and Administration	187
Lee	Stock some Golden Trout	Miscellaneous	At this time there are no plans for VDGIF to stock Golden Trout. There has been very little support from anglers to stock Golden	188

Location	Comment	Goal Area	DGIF Response	#
			Trout.	
Montgomery	River otters are eating all the stocked trout in Big Stony Creek, Giles County	Miscellaneous	VDGIF does not know the exact mortality rate of stocked trout caused by rivers otters in Virginia. However, an angler creel survey conducted (2013-2014) on Big Stony Creek in Giles County revealed that angler catch rates remained consistent up to 30 days post stocking.	189
TU	Recommend that the definitions for "wild", "native", "sterile", and "Southern Appalachian Brook Trout" should be contained in a glossary and be used consistently throughout the plan.	Miscellaneous	Amended VSTMP	190
Lee	Stock larger trout	Recreational Opportunities	VDGIF has collected valuable creel survey data from 17 stocked trout waters and will use this information to justify any changes to stocking numbers, size of trout and stocking locations. Some of this information indicates that a slight majority of anglers favor stocking larger trout, even if that means fewer trout per stocking.	191
Montgomery	Keep the current stocking announcement system	Stocking Announcements	See Goal Statement and objectives 1-4 under Stocking Announcements in VSTMP. A diversity of stocking announcement scenarios are being considered.	192

Location	Comment	Goal Area	DGIF Response	#
Montgomery	I like the year round trout season	Stocking Announcements	See Goal Statement and objectives 1-4 under Stocking Announcements in VSTMP. A diversity of stocking announcement scenarios are being considered.	193
USFS	Objective 3 under Stocking Announcements should specifically mention coordinating with USFS when discussing waters on USDA lands.	Stocking Announcements	Amended objective 3 under Stocking Announcements.	194

Appendix D. Priority rankings of the Virginia Stocked Trout Management Plan objectives by the Stakeholder Advisory Committee (SAC) and the VDGIF Technical Advisory Committee (TAC). A rank of 1 means most important, 2 means next most important, etc. Some ranks are tied and repeated.

Priority Level		Stocked Trout Management Plan Objectives
SAC	TAC	
		STOCKING ANNOUNCEMENTS
18	17	Continue the policy of not announcing stocking delayed harvest (except for the first stocking which is announced at 4:00 PM the day of stocking), catch-and-release, and other special regulation waters.
7	8	By 10/1/2016, announce in advance stocking events in Trout Heritage waters, fee fishing areas, urban trout waters, and kid's fishing events.
13	1	Identify a minimum of two waters (by 5/1/2016) in VDGIF administrative region's 2, 3, and 4 to test prior announcement of multiple stocking events each year in those waters. Implementation should begin in 2017 and be tested for 2 years.
17	11	Continue the current policy of announcing stocking events at 4 PM the day of stocking except for waters that receive pre-announcements or for which stockings are unannounced.
14	15	Publish by July 15 each year a report that lists pounds of trout stocked by county and/or water in the previous 12 months.
		ANGLER RECRUITMENT AND RETENTION
1	2	By July 1, 2021, increase youth (under 16 years of age) participation in the stocked trout program by 10%.
7	9	By July 1, 2021, increase participation among females and minority populations in the stocked trout program by 10%.
4	5	By July 1, 2025, recruit new anglers to the stocked trout program to attain 100,000 trout-license buyers (including lifetime license) annually.
19	11	Increase participation of non-residents by 10% in the stocked trout by program July 1, 2021.
2	2	Develop and implement marketing strategies to promote the stocked trout program by July 1, 2018.
		FUNDING AND ADMINISTRATION
7	7	Conduct a financial evaluation of the trout program and develop strategies based on those results by January 1, 2017.
10	13	Publish an annual report detailing accomplishments and progress in achieving objectives of the Stocked Trout Management Plan by September 30 each year.
		ECOSYSTEM EFFECTS
4	10	Develop strategies to minimize the effects of stocking on existing wild trout populations, including native brook trout, by January 1, 2017.
14	13	Develop strategies to minimize the effects of stocking trout on existing/resident aquatic organisms in waters currently being stocked and when new waters are being proposed for addition to the stocked trout program by January 1, 2017.
10	19	Develop strategies to minimize the effects of stocking and angler use on sensitive riparian terrestrial species and habitat in waters currently being stocked and when new waters are being proposed for addition to the stocked trout program by January 1, 2017.
10	17	Develop strategies to address habitat issues in stocked trout waters by January 1, 2021.
		RECREATIONAL OPPORTINITIES
4	2	Expand stocked trout fishing opportunities designed to appeal to a variety of angler preferences including developing trophy trout fisheries, catch-and-release fishing, delayed harvest, urban waters, and youth fishing opportunities by July 1, 2016.
3	6	Identify 12 waters statewide to be managed with alternative management strategies (e.g., catch and release, delayed harvest, youth only, etc.) by October 1, 2017. This may include the conversion of current stocked waters to a new designation.
14	15	Increase angler access to stocked trout waters where appropriate.

Economic Evaluation of Virginia's Stocked Trout Program

Victor J. Dicenzo
Virginia Polytechnic Institute and State University
College of Natural Resources and Environment
Nate Wilke and Stephen Reeser
Virginia Department of Game and Inland Fisheries
July 1, 2016

Introduction

Trout fishing provides significant recreational fishing opportunities and economic impacts in Virginia. Trout anglers comprised about 20% of the total number of anglers in Virginia and expended an estimated 1.1 million angler-days in pursuit of trout in Virginia in 2011 (U.S. Department of the Interior 2011). In 2011, trout anglers in Virginia spent about $154 million directly related to trout fishing. Most ($66 million) of these direct expenditures occurred for trip-related expenses such as food, lodging, transportation, and bait, while most of the remaining expenditures were for fishing equipment. In North Carolina in 2014, the economic effect of trout fishing was estimated at $383.3 million, supporting nearly 3,600 jobs (Duda et al. 2015).

Stocked trout account for approximately 80% of the trout angling effort in Virginia (O'Neill 2001) through a program managed by the Virginia Department of Game and Inland Fisheries (VDGIF). Through this program, VDGIF stocks about 1 million catchable-sized trout in more than 180 waters across the state. Production of fish to support the stocked trout program occurs at five coldwater hatcheries owned by VDGIF. The cost of operating these five hatcheries (including personnel) in fiscal year (FY) 2015 totaled about $2.42 million.

To fish for stocked trout in Virginia, anglers must possess a general fishing license as well as a trout license. The VDGIF initiated the trout license in 1959 to help offset the cost of raising catchable-sized trout but license sale data is only available from 1994-2015. The sale of trout licenses peaked in 1994 (110,679), declined periodically until 2011, and remained constant from 2012-2015 (average = 51,066). Trout license sales exhibited three sharp declines since 1994, each of which followed a license increase (1995, 2007, and 2012). License sales declined 9, 15, and 9% respectively in 1995, 2007, and 2012 (Figure 1). In a 2008 survey of trout-license buyers, approximately 64% of trout anglers purchased a general fishing license solely for the purpose of fishing for stocked trout. In 2002, VDGIF began selling lifetime trout licenses and from 2002-2015, about 44,000 lifetime licenses have been sold.

The VDGIF expends nearly 20% of the aquatic resources budget on the production of catchable-size trout. Because of this significant expense and the existence of a specific license tied to the trout program, stakeholders and policy makers have expressed great interest in comparing revenues and expenditures associated with the stocked trout program. This report addresses two primary questions: first, does the stocked trout program currently pay for itself, and second, what are the projected revenues and expenditures from 2016 to 2025?

Methods

Revenue – The VDGIF provided license sales data from FY15 (July 1, 2014 – June 30, 2015). We included all trout licenses for the analysis (resident trout license, all lifetime licenses, all non-resident trout licenses, license sales from three fee-fishing areas, and $22 from the sale of each sportsman's license). Since 64% of trout anglers purchased a general fishing license solely to fish for stocked trout, we also included the sale of general fishing licenses to that percentage of anglers from FY15 ($22 * 0.64 * 51,117). Finally, we included Federal Aid in Sport Fish Restoration funds generated from the sale of those general fishing licenses and non-resident, lifetime, and sportsman licenses ($9.58 per license).

Expenditures – We considered costs incurred by the five-coldwater hatcheries to represent the direct costs of stocked trout management. We obtained hatchery expense data from VDGIF for FY15. Non-hatchery staff also expend effort in managing stocked trout. Therefore, we estimated the number of hours expended by Bureau of Wildlife Resources (BWR) staff in managing stocked trout as well as the number of hours spent by Conservation Police Officer's (CPOs). We then divided the number of hours by 2080 to determine how many work years are spent by non-hatchery staff. Finally, we obtained average salary data from VDGIF Human Resources for Aquatic Scientist 2 positions (BWR) and CPOs. We estimated indirect costs by multiplying the number of work years by the average salaries for BWR staff and CPO's.

Projected revenue – We projected revenues from license sales under two scenarios. Trout license sales remained relatively consistent from 2012 to 2015; therefore, we first projected costs in FY25 to be equal to FY15. Second, given the objectives to increase participation among underrepresented groups (e.g., women and minorities, as well as non-residents) in stocked trout fishing in the Virginia Stocked Trout Management Plan (VSTMP), we estimated the financial impact of resident and non-resident license sales increasing gradually by 10% in FY25. . Additionally, VDGIF expects a number of stakeholder-driven improvements to stocked trout management to increase participation and thus, license sales. Therefore, we conservatively multiplied the number of resident licenses sold, and all non-resident licenses sold by 10%. We also accounted for the percentage (64%) of general licenses that would be sold given this increase as well as the Federal Aid reimbursement for those new licenses sold.

Projected expenditures – We used the percentage increase in total hatchery expenses from FY11 to FY15 to create an annual rate of increase (AOI) for hatchery costs:

$$\text{Annual rate of increase} = [(\text{FY15 costs} - \text{FY11 costs})/\text{FY15 costs}] / 5 \text{ years}$$

We then used the AOI to determine projected costs each year from FY16 to FY25 based on the equation:

$$\text{Cost in FY(X)} = (\text{Cost in FY(X-1)}*(1+\text{AOI})^{1}$$

Data analysis – To determine if the stocked trout program currently is self-sustaining, we compared FY15 revenues from license sales and Federal Aid reimbursement with FY15 hatchery costs. We constructed a line graph from 2016 to 2025 to compare projected revenues and expenditures.

Results

Objective 1 - The VDGIF sold 51,117 resident trout licenses in FY15, which accounted for more than one-third of the $3,083,137 in total revenue generated by sales of all types of licenses associated with trout fishing (Table 1). Anglers 65 years of age or older bought 83% of the 3,204 lifetime licenses VDGIF sold in FY15. A lifetime license for an angler 65 or older costs $2 less than an annual license, creating a powerful incentive to make a purchase that preempts future accrual of revenue to the agency. Non-residents purchased 3,039 trout licenses in FY15, and about 70% of those non-residents also purchased an annual nonresident license. Nearly all other non-resident trout anglers purchased either the 1-day or the 5-day license. Virginia residents purchased 7,767 sportsman's licenses, each of which generated $22 in revenue. The remainder of revenue generated by the stocked trout program derived from three fee-fishing areas where anglers can purchase a daily license for $8 (Table 1).

Hatchery expenses (direct costs) primarily include salaries and wages, trout feed, maintenance, utilities, and vehicles. The VDGIF stocked 811,230 catchable-sized trout at an average cost of $2.99/fish. For FY15, VDGIF expenditures at the five-coldwater hatcheries was $2,422,536 (Table 2). Estimated revenue derived from the trout program in FY15 exceeded direct expenditures by $660,601.

Bureau of Wildlife Resources staff worked about 1,850 hours managing stocked trout at an average salary of $57,428. Conservation Police Officer's worked about 13,851 hours (6.7 work years) in FY15 at an average salary of $44,834. We estimated indirect costs at nearly $349,631. Total direct and indirect costs of $2,772,167 fell $310,970 short of total estimated FY15 revenue.

Objective 2 – With no change in license sales, projected revenues from FY16 to FY25 would remain constant at $3,083,137. If resident and non-resident license sales increase from FY16-FY25, then we project revenues in FY25 to be $3,326,054 (Table 3, Figure 2). This 10% increase in license sales over a 10-year period generated an additional $242,917. If the annual rate of increase in hatchery expenses from FY16 to FY 25 matches the 1.42% average increase observed from FY11 to FY15, then estimated direct hatchery costs in FY25 will be $2,789,371, still less than projected revenue derived from the program, even if license sales remain flat (Figure 2). If license sales increase by 10%, then revenue would exceed direct costs by $409,441. In FY25, we estimate indirect costs to be $402,575. When direct and indirect costs are added, expenditures match revenue in 2023 (constant license sales). If license sale increase by 10%, then revenues exceed expenditures throughout the time period we examined (Figure 2).

Discussion

License sales associated with stocked trout fishing generated nearly $3 million in FY15. Residents accounted for 91% of revenue, mostly through the sale of general trout licenses and the general fishing licenses bought by trout anglers. Since 1994, VDGIF increased the cost of the trout license in 1995, 2007, and 2012 and in each instance, license sales decreased the first year of the increased fee (9, 15, and 9%, respectively). Fedler and Sweezy (1990) reported that for every $1 dollar increase in the cost of a license, agencies could expect a 4.7% decrease in the number of licenses sold. The decreases in resident trout license sales in Virginia were considerably less than those reported by Fedler and Sweezy (1990). Since the last increase in 2012, the number of resident trout licenses sold has remained relatively consistent. However, if the cost of a license increases in the future, then VDGIF can likely expect a decrease in sales.

In a 2008 survey of Virginia trout license buyers, a high percentage of resident stocked trout anglers only purchased a general fishing license to fish for stocked trout. Therefore, we accounted for these general fishing license sales in our computation of revenues. Additionally, we included the Federal Aid apportionment for the sale of these licenses. Including these values added more than $1.1 million in revenue. Future surveys should seek to confirm the percentage of trout anglers who only purchase a general fishing license to fish for stocked trout.

Production of stocked trout incurs significant costs. The VDGIF operates five coldwater hatcheries and the majority of expenses include personnel, transportation, feed, maintenance, and utilities. These coldwater hatcheries produce not only catchable-size trout but also fingerlings for the "put-grow-take" program. We did not separate costs associated with raising trout for these two programs; therefore, our estimate hatchery costs in FY15 overestimate the cost of raising catchable-size trout. Indirect costs, those associated with aquatic biologists, administration, and conservation police officers (CPOs), increase the total expenditures of the stocked trout program but obtaining accurate information on the number of hours allocated to stocked trout is difficult. Therefore, interpreting results that include indirect costs should be done carefully. In Pennsylvania, costs incurred beyond hatcheries equaled 34% of the total cost of the stocked trout program (Wisner 2009). However, capital projects represented 5% of these costs in Pennsylvania and another 6% represented effluent improvements that were not part of the Pennsylvania Fish and Boat Commission budget. To obtain a more accurate estimate of VDGIF indirect costs associated with stocked trout management, more accurate accounting of the amount of time spent managing stocked trout would be needed.

To project revenues and expenditures in FY25, we made several assumptions. Given that the sale of resident trout licenses has been constant for the past four years, we first predicted FY25 revenue to be equal to FY15. If VDGIF meets the objectives of the VSTMP, forecasting a 10% increase in resident and non-resident license sales seemed reasonable. Since analysis of license-sales data indicated that most decreases in license sales occurred the year following a fee increase, we chose not to predict decreased revenues caused by fewer licenses sold. We based our FY25 expenditure projection on a 1.42% annual increase in hatchery costs on the change in expenditures from FY11 to FY15. If hatchery costs increase at a higher rate, then results could

differ from those reported here. Annual tracking of hatchery expenses will be necessary to better account for future comparisons of expenditures and revenues.

Our analysis suggests that the revenues generated by the sale of stocked trout licenses exceed the direct costs of catchable-stocked trout production. With the inclusion of indirect costs, expenditures matched revenue in five years given no increase in license sales and ten years with a 10% license sale increase. Continuous tracking of license sales and expenditures would allow VDGIF to monitor the effects of marketing efforts or increased costs of trout production and management in the future.

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Table 1 – Number of Virginia trout licenses sold and revenue generated from those sales for FY15.

License Type	Units Sold	Unit Price ($)	Revenue ($)
Resident trout	51,117	22.00	1,124,574
Resident lifetime 00-44	64	260.00	16,640
Resident lifetime 45-50	18	210.00	3,780
Resident lifetime 51-55	26	160.00	4,160
Resident lifetime 56-60	90	110.00	9,900
Resident lifetime 61-64	351	60.00	21,060
Resident lifetime ≥ 65	2,651	20.00	53,020
Non-resident lifetime	4	555.00	2,220
General fishing for 64% of trout licenses	32,715	22.00	719,727
Federal Aid reimbursement	45,787	9.58	438,638
Non-resident trout	3,039	46.00	139,794
Non-resident annual fishing	2,101	46.00	96,646
Non-resident 1-day fishing	451	8.00	3,608
Non-resident 5-day fishing	447	21.00	9,387
Non-resident partially-disabled fishing	7	24.00	168
Non-resident fully-disabled fishing	8	12.50	100
Non-resident freshwater/saltwater	23	71.00	1,633
Crooked Creek fee area	5,881	8.00	47,048
Clinch Mountain fee area	8,176	8.00	65,408
Douthat Lake fee area	5,674	8.00	45,392
Sportsman’s license	7,767	22.00	280,233
Total			**3,083.137**

Table 2 – Number, average weight, and costs of trout production at five coldwater VDGIF hatcheries in FY15.

Description	Coursey Springs	Marion	Montebello	Paint Bank	Wytheville	Total
Number of catchable trout stocked	254,036	164,035	117,082	101,588	174,489	811,230
Cost to raise 1-pound trout	$3.34	$2.84	$5.72	$2.65	$2.71	$3.08
Cost to raise 1-stocked trout	$2.74	$3.70	$1.87	$3.96	$2.10	$2.99
Average weight of stocked trout	0.68	0.76	0.68	0.81	0.60	0.72
Total hatchery expenses	$696,759	$607,711	$219,477	$402,494	$496,093	**$2,422,534**

Table 3 – The number of hours worked on the stocked trout program by Bureau of Wildlife Resources staff and Conservation Police Officers.

Description	Hours	Work years	Average salary ($)	Cost ($)
Bureau of Wildlife Resources staff	1,850	0.9	57,428	51,078
Conservation Police Officer's	13,851	6.7	44,834	298,554
Total				**349,631**

Table 4 – Projected revenue in FY25 for Virginia's stocked trout program. Asterisk denotes items that increased by 10% from FY16-FY25.

License Type	Units Sold FY15	Units Sold FY25	Unit Price ($)	Revenue FY25 ($)
Resident trout*	51,117	56,229	22.00	1,237,031
Resident lifetime 00-44	64	64	260.00	16,640
Resident lifetime 45-50	18	18	210.00	3,780
Resident lifetime 51-55	26	26	160.00	4,160
Resident lifetime 56-60	90	90	110.00	9,900
Resident lifetime 61-64	351	351	60.00	21,060
Resident lifetime ≥ 65	2,651	2,651	20.00	53,020
Non-resident lifetime	4	4	555.00	2,220
General fishing for 64% of trout licenses*	32,715	35,986	22.00	791,700
Federal Aid reimbursement*	45,787	49,268	9.58	471,992
Non-resident trout*	3,039	3,343	46.00	153,773
Non-resident annual fishing*	2,101	2,311	46.00	106,311
Non-resident 1-day fishing*	451	496	8.00	3,969
Non-resident 5-day fishing*	447	492	21.00	10,326
Non-resident partially-disabled fishing*	7	8	24.00	185
Non-resident fully-disabled fishing*	8	9	12.50	110
Non-resident freshwater/saltwater*	23	25	71.00	1,796
Crooked Creek fee area	5,881	5,881	8.00	47,048
Clinch Mountain fee area	8,176	8,176	8.00	65,408
Douthat Lake fee area	5,674	5,674	8.00	45,392
Sportsman's license	7,767	7,767	22.00	280,233
Total				**3,326,054**

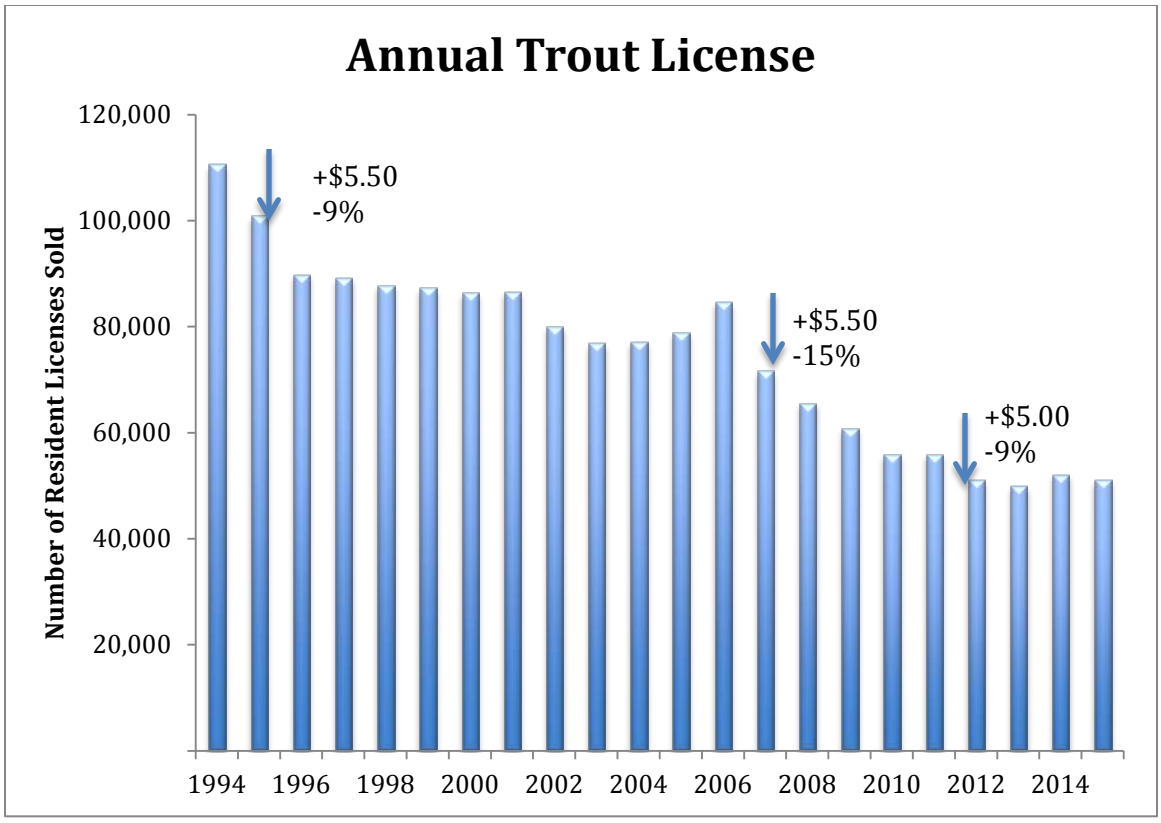

Figure 1 – Number of resident Virginia trout license sold from 1994-2015. Arrows indicate when the cost of the license was increased, by how much ($), and the one-ear decline that was realized.

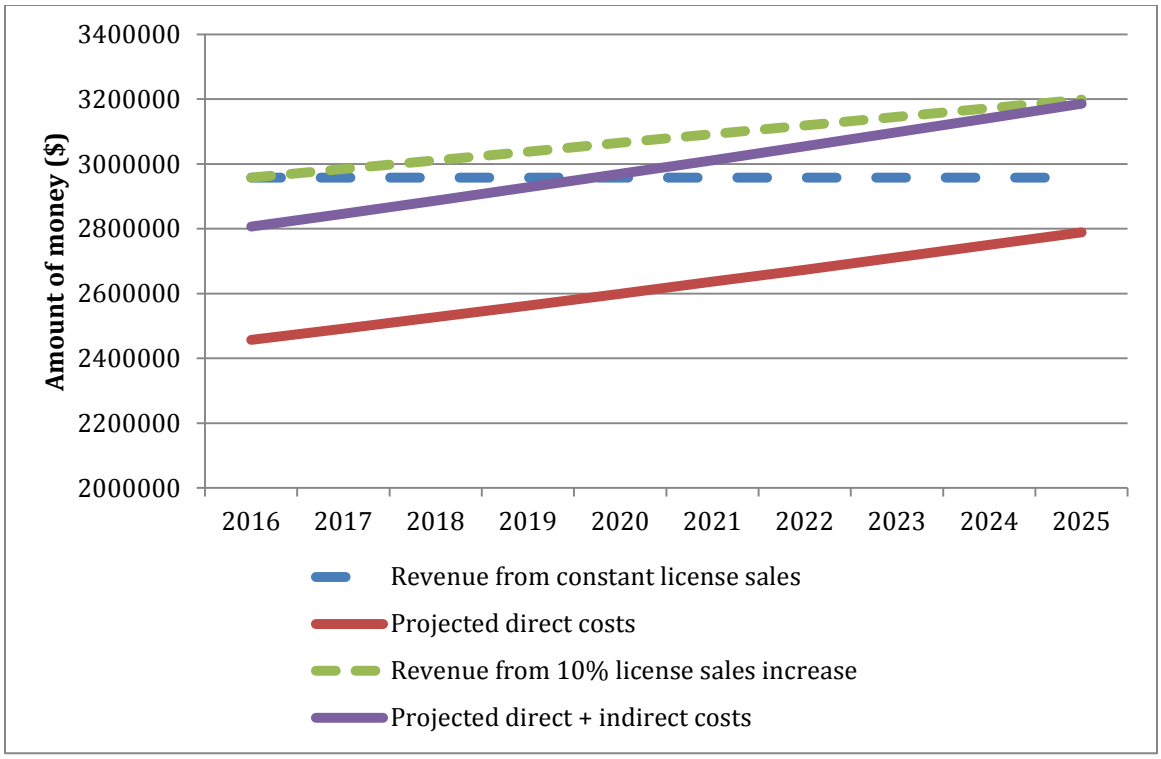

Figure 2 – Projected revenues and hatchery expenses for Virginia's stocked trout management program. Hatchery expenses increase by 1.42% annually. The long-dashed line represents income based on license sales remaining constant while the short-dashed line projects revenues based on an annual 1% increase from FY16-FY25.

DEPARTMENT OF GAME AND INLAND FISHERIES

BOARD MEETING AGENDA ITEM

BOARD MEETING DATE: August 18, 2016

DIVISION: Bureau of Wildlife Resources **PRESENTER:** Robert W. Duncan

DATE SUBMITTED: August 9, 2016 **SUBMITTED BY:** David Whitehurst

SUBJECT:

Proposed Virginia Stocked Trout Management Plan.

BACKGROUND:

Due to the importance of trout fishing in Virginia, and the significant investment required to operate and maintain hatcheries to produce catchable-sized trout, Department staffs, in collaboration with Virginia Tech, have spent the past three years developing the Virginia Stocked Trout Management Plan to ensure effective and efficient management of trout fisheries over the next 10 years. Following a process similar to those used to develop statewide management plans for white-tailed deer, black bear, and wild turkey, the Virginia Stocked Trout Management Plan is designed to embody the interests of all Virginians who care about trout fishing (stakeholders). The planning process focused on balancing stakeholder values and sound biological information provided by the VDGIF to produce a plan that is technically sound and publicly supported. The Plan includes values and goals identified by stakeholders to determine what Virginians want the stocked trout program to achieve, and objectives and strategies, primarily developed by VDGIF technical staff, to describe how the goals and objectives can be achieved.

The complete Stocked Trout Management Plan and a supplemental economic evaluation of the Department's stocked trout program were provided electronically for the Board's consideration, and a summary of the Plan and the economic evaluation are included for discussion.

An overview of the Plan, including stakeholder input and an economic evaluation of the VDGIF program, will be provided in a presentation to the WBL Committee.

RECOMMENDATION:

Staff recommends that the Board endorse the Virginia Stocked Trout Management Plan as presented.

DEPARTMENT OF GAME AND INLAND FISHERIES

BOARD MEETING AGENDA ITEM

BOARD MEETING DATE: August 18, 2016

DIVISION: Bureau of Wildlife Resources **PRESENTER:** Robert W. Duncan

DATE SUBMITTED: August 9, 2016 **SUBMITTED BY:** David Whitehurst

SUBJECT:

Final recommended changes to the endangered and threatened species regulation.

BACKGROUND:

Staff recommendations for changes to regulations related to endangered and threatened species are presented as circumstances warrant. Recent actions taken by the U.S. Fish and Wildlife Service necessitated the Board's review of addition changes to the state list of endangered and threatened species, which occurred at the Board's meeting on June 16.

The proposed amendments to these regulations were advertised for public comment on the Department's Web site for 31 days (July 7-August 6, 2016), in the Virginia Register and in newspapers statewide. Two comments were received. As a result of additional federal action since the Board's meeting in June, staff is proposing a technical update to the effective date of the federal list.

A complete package of the proposed changes, with summary and rationales, is included in this packet.

Staff final recommendations will be summarized in a presentation to the WBL Committee.

RECOMMENDATION:

Staff recommends that the Board adopt the regulation amendments as presented, with an effective date of October 1, 2016.

4VAC15-20-130. Definitions and Miscellaneous: In General; Endangered and threatened species; adoption of federal list; additional species enumerated.

SUMMARY:

The proposal is to (i) update the date reference to the federal list of endangered and threatened wildlife species; and (ii) update the Virginia List of Endangered and Threatened Species to remove the state endangered Big Sandy crayfish to reflect its status in Virginia more accurately.

PROPOSED LANGUAGE OF AMENDMENT:

4VAC15-20-130. Endangered and threatened species; adoption of federal list; additional species enumerated.

A. The board hereby adopts the Federal Endangered and Threatened Species List, Endangered Species Act of December 28, 1973 (16 USC §§1531-1543), as amended as of ~~December 23, 2015~~[~~June 7, 2016~~August 4, 2016], and declares all species listed thereon to be endangered or threatened species in the Commonwealth. Pursuant to Code § 29.1-103.12, the director of the department is hereby delegated authority to propose adoption of modifications and amendments to the Federal Endangered and Threatened Species List, in accordance with the procedures of Code §§ 29.1-501 and 29.1.502.

B. In addition to the provisions of subsection A, the following species are declared endangered or threatened in this Commonwealth, and are afforded the protection provided by Article 6 (§29.1-563 et seq.) of Chapter 5 of Title 29.1 of the Code of Virginia:

1. Fish:

Endangered:

Dace, Tennessee	Phoxinus tennesseensis
Darter, sharphead	Etheostoma acuticeps
Darter, variegate	Etheostoma variatum
Sunfish, blackbanded	Enneacanthus chaetodon

Threatened:

Darter, Carolina	Etheostoma collis
Darter, golden	Etheostoma denoncourti
Darter, greenfin	Etheostoma chlorobranchium
Darter, sickle	Percina williamsi
Darter, western sand	Ammocrypta clara
Madtom, orangefin	Noturus gilberti
Paddlefish	Polyodon spathula
Shiner, emerald	Notropis atherinoides
Shiner, steelcolor	Cyprinella whipplei
Shiner, whitemouth	Notropis alborus

2. Amphibians:

Endangered:

Salamander, eastern tiger	Ambystoma tigrinum

Threatened:

Salamander, Mabee's	Ambystoma mabeei
Treefrog, barking	Hyla gratiosa

3. Reptiles:

Endangered:

Rattlesnake, canebrake (Coastal Plain population of timber rattlesnake)	Crotalus horridus
Turtle, bog	Glyptemys muhlenbergii
Turtle, eastern chicken	Deirochelys reticularia reticularia

Threatened:

Lizard, eastern glass	Ophisaurus ventralis
Turtle, wood	Glyptemys insculpta

4. Birds:

Endangered:

Plover, Wilson's	Charadrius wilsonia
Rail, black	Laterallus jamaicensis
Wren, Bewick's	Thryomanes bewickii

Threatened:

Falcon, peregrine	Falco peregrinus
Shrike, loggerhead	Lanius ludovicianus
Sparrow, Bachman's	Aimophila aestivalis
Sparrow, Henslow's	Ammodramus henslowii
Tern, gull-billed	Sterna nilotica

5. Mammals:

Endangered:

Bat, Rafinesque’s eastern big-eared	Corynorhinus rafinesquii macrotis
Bat, little brown	Myotis lucifugus
Bat, tri-colored	Perimyotis subflavus
Hare, snowshoe	Lepus americanus
Shrew, American water	Sorex palustris
Vole, rock	Microtus chrotorrhinus

6. Molluscs:

Endangered:

Coil, rubble	Helicodiscus lirellus
Coil, shaggy	Helicodiscus diadema
Deertoe	Truncilla truncata
Elephantear	Elliptio crassidens

Elimia, spider	Elimia arachnoidea
Floater, brook	Alasmidonta varicosa
Ghostsnail, thankless	Holsingeria unthanksensis
Heelsplitter, Tennessee	Lasmigona holstonia
Lilliput, purple	Toxolasma lividus
Mussel, slippershell	Alasmidonta viridis
Pigtoe, Ohio	Pleurobema cordatum
Pigtoe, pyramid	Pleurobema rubrum
Springsnail, Appalachian	Fontigens bottimeri
Springsnail (no common name)	Fonitgens morrisoni
Supercoil, spirit	Paravitrea hera

Threatened:

Floater, green	Lasmigona subviridis
Papershell, fragile	Leptodea fragilis
Pigtoe, Atlantic	Fusconaia masoni
Pimpleback	Quadrula pustulosa pustulosa
Pistolgrip	Tritogonia verrucosa
Riversnail, spiny	Io fluvialis
Sandshell, black	Ligumia recta
Supercoil, brown	Paravitrea septadens

7. Arthropods:

Threatened:

Amphipod, Madison Cave	Stygobromus stegerorum
Pseudotremia, Ellett Valley	Pseudotremia cavernarum
Xystodesmid, Laurel Creek	Sigmoria whiteheadi

~~8. Crustaceans:~~

~~Endangered:~~

~~Crayfish, Big Sandy~~	~~Cambarus veteranus~~

C. It shall be unlawful to take, transport, process, sell, or offer for sale within the Commonwealth any threatened or endangered species of fish or wildlife except as authorized by law.

D. The incidental take of certain species may occur in certain circumstances and with the implementation of certain conservation practices, as described below:

Species	Location	Allowable Circumstances	Required Conservation Measures	Expected Incidental Take
Little brown bat Tri-colored bat	Statewide	Human health risk – need for removal of individual	Between May 15 and August 31, no exclusion of bats from maternity	Little to no direct lethal taking expected

		animals from human-habited structures	colonies, except for human health concerns. DGIF-permitted nuisance wildlife control operator with DGIF-recognized certification in techniques associated with removal of bats Use of exclusion devices that allow individual animals to escape Manual collection of individual animals incapable of sustaining themselves; transport to a willing and appropriately-permitted wildlife rehabilitator.	
		Public safety or property damage risk – need for tree removal, application of prescribed fire, or other land management actions affecting known roosts; removal of animals from known roosts.	Hibernacula: no tree removal, use of prescribed fire, or other land management action within a 250-foot radius buffer area from December 1 through April 30. Between September 1 and November 30, increase the buffer to a 1/4-mile radius with the following conditions: for timber harvests greater than 20 acres, retain snags and wolf trees (if not presenting public	Little to no direct lethal taking expected

			safety or property risk) and small tree groups up to 15 trees of 3-inch diameter at breast height (dbh) or greater, 1 tree group per 20 acres. Otherwise, document the need (public safety, property damage risk) for tree removal during this period and verify that no known roost trees exist in the buffer area. Tree removal and prescribed fire are permitted outside of these dates. Known Roost Trees: no tree removal, use of prescribed fire, or other land management action within 150-foot radius buffer area from June 1 through July 31, if possible. Otherwise, document public safety or property damage risk. DGIF-permitted nuisance wildlife control operator with DGIF-recognized certification in techniques associated with removal of bats Use of exclusion devices that allow individual animals to escape	

			Manual collection of individual animals incapable of sustaining themselves; transport to a willing and appropriately-permitted wildlife rehabilitator.	
		Facility or project operations when conducted in accordance with a DGIF-approved plan associated with these species.	Development and implementation of a plan that avoids, minimizes and mitigates incidental take associated with an otherwise lawful activity. The plan shall include, but not be limited to, documenting the specific condition/action, the specific mitigation to be taken, and the expected incidental take.	Little to no direct lethal taking expected

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RATIONALE:

(i) ***Adoption of the updated and modified federal list of endangered and threatened wildlife species:*** The Board's adoption of the most current federal list is essential to clarifying the state and federal status of each affected species and to ensuring compliance with our Cooperative Agreements with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service regarding interagency management of these species.

* Note that additional updates occurred subsequent to the Board's approval of the proposal for advertisement, so the language has been updated to reflect the most recent date of federal action.

(ii) ***Changes to the State List of Endangered and Threatened Species-Removal of the Big Sandy crayfish as an endangered species:*** On May 9, 2016, the U.S. Fish and Wildlife Service officially added the Big Sandy crayfish, a species found in southwestern Virginia, as a threatened species to the federal list of endangered and threatened species. The intent of 4 VAC 15-20-130 is for the Board to designate as state endangered or threatened those species that do not already appear on the federal list. Since this species is now on the federal list, staff's recommendation is to remove it from the state list.

The final staff recommendation is to adopt the amendments as proposed and modified, with an October 1, 2016, effective date.

DEPARTMENT OF GAME AND INLAND FISHERIES

BOARD MEETING AGENDA ITEMS

BOARD MEETING DATE: August 18, 2016

DIVISION: Bureau of Wildlife Resources **PRESENTER:** Bob Duncan

DATE SUBMITTED: August 9, 2016 **SUBMITTED BY:** David Whitehurst

SUBJECT: Ware Creek Wildlife Management Area waterfowl blind regulation

BACKGROUND: The department recently purchased property along the York River in New Kent County and established the Ware Creek Wildlife Management Area. The proposed regulation section will enable the department to provide the most efficient and effective means of managing waterfowl hunting on the property and in the public waters around the property.

The proposed regulation amendment was advertised for public comment on the Department's Web site for 31 days (July 7-August 6, 2016), in the Virginia Register, and in newspapers statewide. Additionally, department employees held a public input meeting on July 19, 2016, during which staffs discussed a wide array of management options being considered for Ware Creek WMA, including this proposed regulation. Twelve comments were received through the Department's Web site and during the public meeting.

A complete package of the proposed regulation, with summary and rationale, is included in this packet.

Staff final recommendations will be summarized in a presentation to the WBL Committee.

RECOMMENDATION: Staff recommends that the Board adopt the regulation amendments as presented, with an effective date of August 31, 2016.

4VAC15-260-75. Game: Waterfowl and Waterfowl Blinds: Blinds adjacent to the Ware Creek Wildlife Management Area.

SUMMARY:

The proposal is to (i) prohibit the licensing of non-riparian stationary waterfowl blinds adjacent to the Ware Creek Wildlife Management Area in New Kent County; and (ii) enable the department to designate the locations where and the times when waterfowl hunting will be allowed within 500 yards of the wildlife management area.

PROPOSED LANGUAGE OF AMENDMENT:

4VAC15-260-75. Blinds adjacent to the Ware Creek Wildlife Management Area.

Except for blinds built or maintained by the department, no stationary waterfowl blinds shall be licensed on the public waters of Philbates and Ware Creeks, or on the York River within 1000 yards of the Ware Creek Wildlife Management Area [~~in New Kent County~~]; waterfowl hunting within 500 yards of the Wildlife Management Area property will be permitted only at locations and during times designated by the department. However, this section shall not abridge the privileges prescribed for landowners, and their lessees and permittees, in §29.1-344 and §29.1-347 of the Code of Virginia.

RATIONALE:

The department recently purchased property along the York River in New Kent County and established the Ware Creek Wildlife Management Area. The proposed regulation section will enable the department to establish a managed waterfowl hunting program on the property. Without such a regulation, non-riparian blinds could be licensed in the public waters around the property and would prevent float blind hunting in the public waters on and adjacent to the area. Furthermore, considerable cost and staff time would be required for the department to build and annually maintain numerous (~16) stationary waterfowl blinds on the property.

This regulation will allow the department to specify when the wildlife management area and the public waters around the property can be hunted. This regulation section is similar to sections that exist for other state wildlife management areas.

* NOTE: Staff is recommending a housekeeping edit to the advertised proposal to eliminate unnecessary language.

Staff recommends adoption of the regulation proposal as presented, with an effective date of August 31, 2016.

DEPARTMENT OF GAME AND INLAND FISHERIES

BOARD MEETING AGENDA ITEM

BOARD MEETING DATE: August 18, 2016

DIVISION: Bureau of Wildlife Resources **PRESENTER:** Robert W. Duncan

DATE SUBMITTED: August 9, 2016 **SUBMITTED BY:** David Whitehurst

SUBJECT:

Draft 2017-2018 Terrestrial Wildlife Regulation Cycle

BACKGROUND:

Staff recommendations for changes to regulations related to terrestrial wildlife, including hunting and trapping seasons and bag limits, are presented every two years for consideration by the Board of Game and Inland Fisheries. Biologists from the Bureau of Wildlife Resources have analyzed field data and considered input received during the past several years.

The next cycle of recommendations for regulation amendments would typically begin this fall. Staffs have developed a draft schedule that provides opportunities for public input, technical review and analyses, and input from the Board. While the schedule has been reviewed by the Chairman of the Board, it is subject to the Board's development of a meeting schedule for 2017. Additionally, staffs have made a presumption that the Wildlife, Boat and Law Enforcement Committee will continue to meet the day before meetings of the full Board. Staffs will adapt the schedule to align with selected meeting dates of the WBL Committee and/or the Board.

A preliminary schedule is provided for information.

Staff will present a brief overview of the schedule to the WBL Committee.

RECOMMENDATION:

For information only.

2017-2018 Terrestrial Wildlife Regulation Cycle

Proposed Schedule

In anticipation of beginning the biennial review of hunting, trapping and terrestrial wildlife-related regulations, staffs have developed the following draft schedule that provides opportunities for public comment, technical review and analyses, and Board input. The schedule is subject to the Board's development of a meeting schedule for 2017 and the presumption that WBL Committee meetings will be held the day prior to meetings of the full Board. Staffs will certainly adapt the schedule to meet the needs and schedule of the Board and the WBL Committee, if other dates are selected for meetings.

- **September 12, 2016:** public issues scoping period opens
- **September 12-November 30, 2016:** staffs review comments received during public scoping period, contacts constituent groups or individuals, assesses input received.
- **October 19, 2016:** WBL Committee meeting, preliminary review of issues; Board input sought
- **October 20, 2016:** Board meeting, preliminary review of issues, Board input sought
- **November 30, 2016:** public issues scoping period closes
- **December 2016-February 2017:** technical committees develop regulation amendment recommendations based on review/evaluation of resource data and public/Board input
- **January 10, 2017:** WBL Committee meeting, final overview of all issues received
- **January 11, 2017:** Board meeting, final overview of all issues received
- **Late January 2017:** technical staffs meet to finalize recommendations
- **Early February 2017:** Finalize staff recommendations with review by the Office of the Attorney General
- **February 21, 2017:** WBL Committee meeting, staff recommendations for regulatory amendments presented
- **February 22, 2017:** Board meeting, staff recommendations for regulatory amendments presented; Board proposals created
- **Mid-March – Mid-May, 2017:** 60-day public comment period on Board proposals (no public meetings unless a specific topic needs to be addressed)
- **May 23, 2017:** WBL Committee meeting, staff presents final recommendations on Board proposals
- **May 24, 2017:** Board meeting, staff presents final recommendations for final Board approval
- **July 1, 2017:** updated regulations online on DGIF's Web site
- **Late July 2017:** updated hunting and trapping digest available
- **August 1, 2017:** Regulation amendments effective