

# 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 carry out 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 20<sup>th</sup> 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.

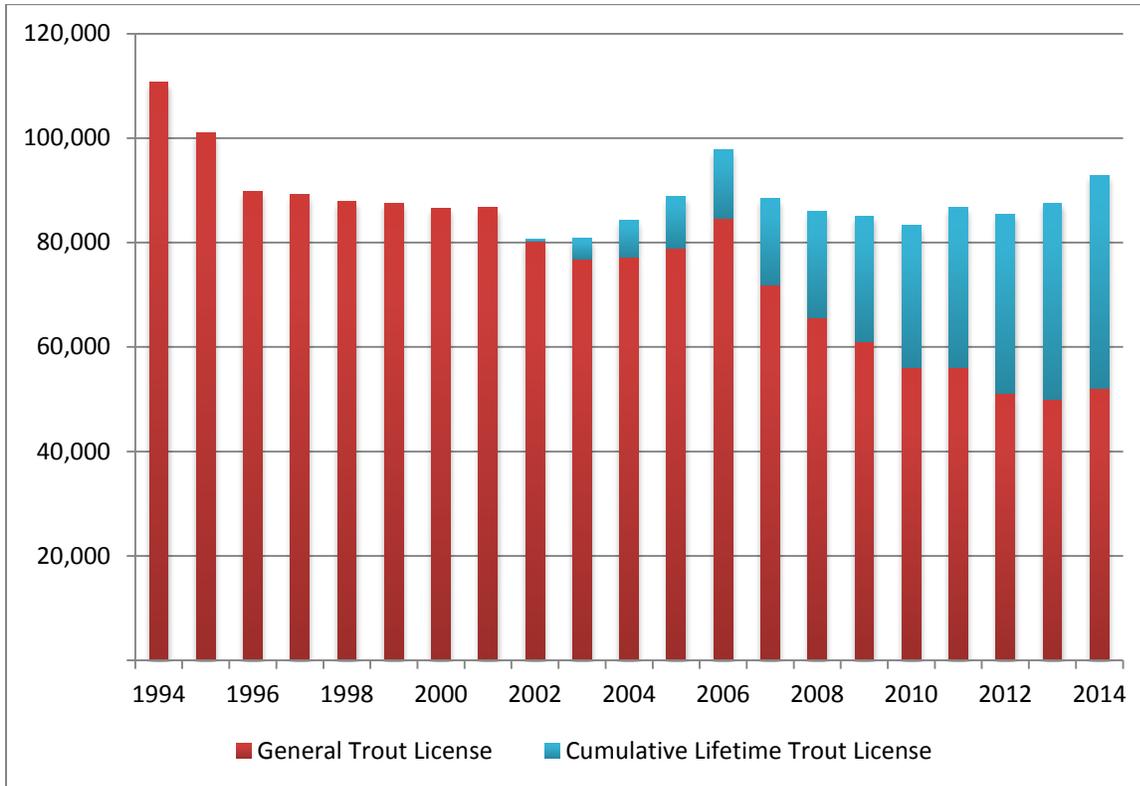


Figure 1. Trout license sales combined with Lifetime Fishing License Sales

**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..

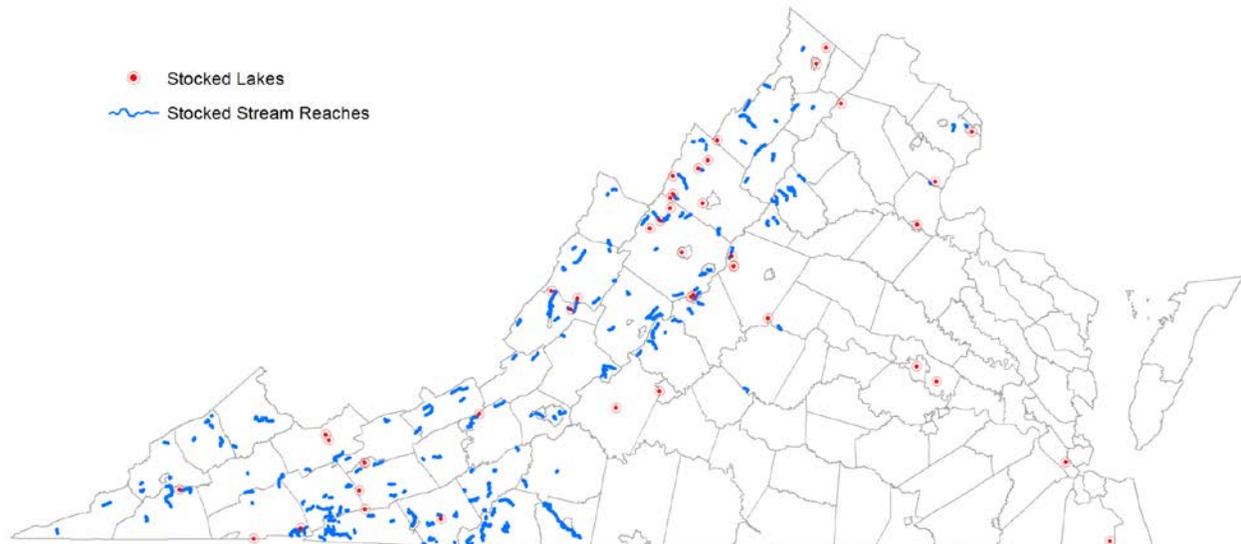


Figure 2. Location of waters listed in the 2015 Catchable Trout Stocking Plan.

### **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).

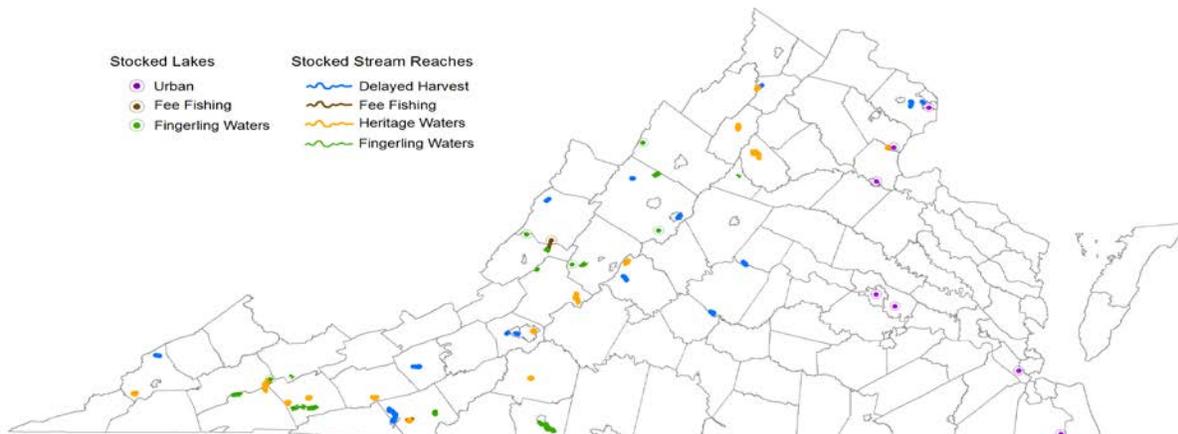


Figure 3. Location of Delayed Harvest, Fee Fishing, Urban, and Trout Heritage, and Fingerling stocked waters.

### 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**

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

**D. Food Availability/Holdover potential**

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

**E. Distribution Potential**

<u>Limited:</u> (few sites available (>1/4 mi between stocking points)	0
<u>Adequate:</u> (stocking sites limited, but at least 1 every 1/4 mi)	1
<u>Excellent:</u> (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:**

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

<b>B. Fishing Pressure</b>	<b>Weighting Factor</b>
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 30<sup>th</sup> 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

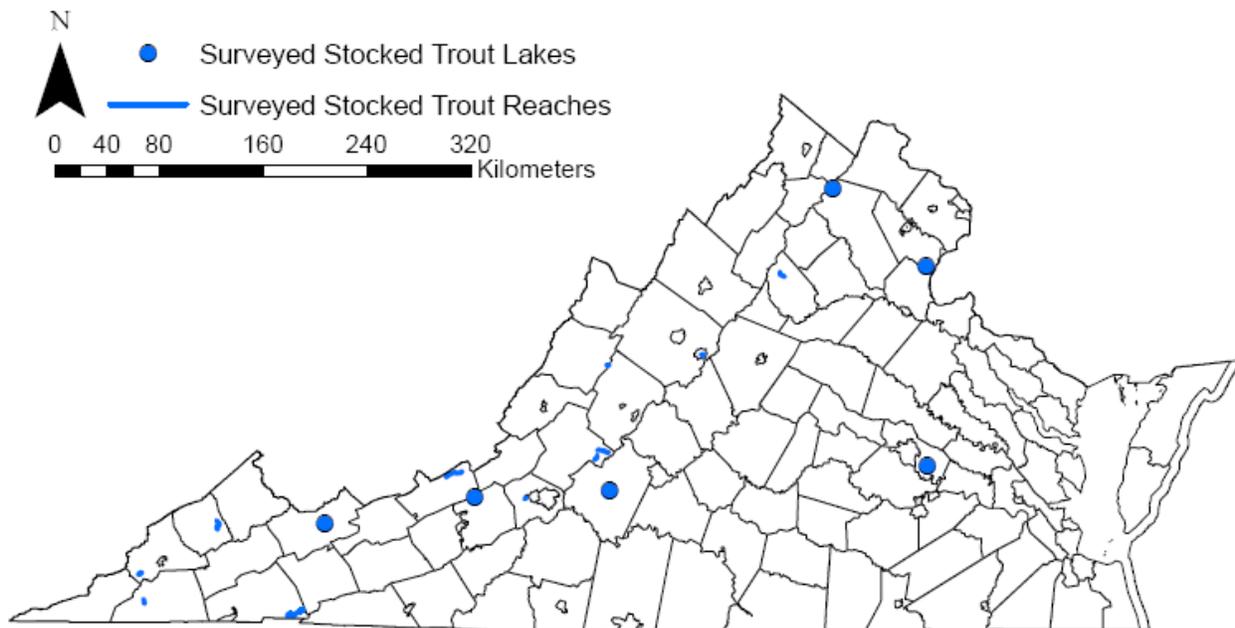


Figure 4. Location of trout streams and lakes where creel surveys were conducted.

### 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).

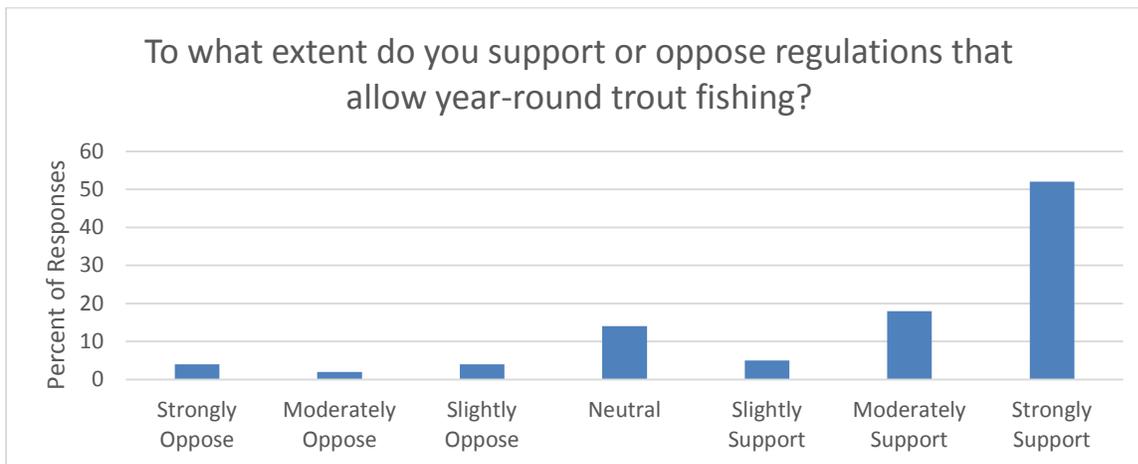


Figure 5. Support for year-round trout season from mail survey.

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).

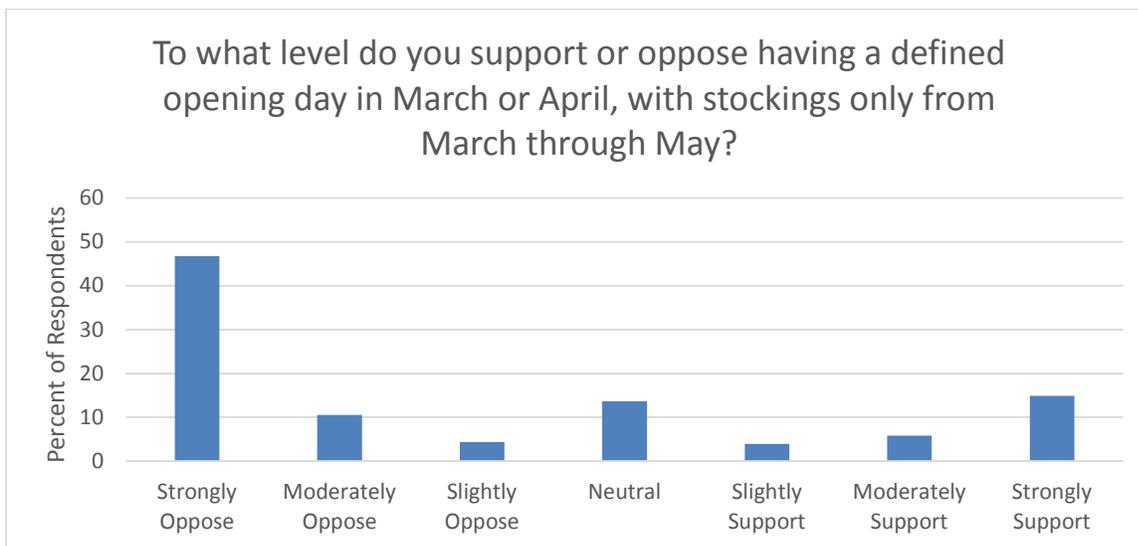


Figure 6. Support for having an opening day and spring trout season from creel survey.

**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).

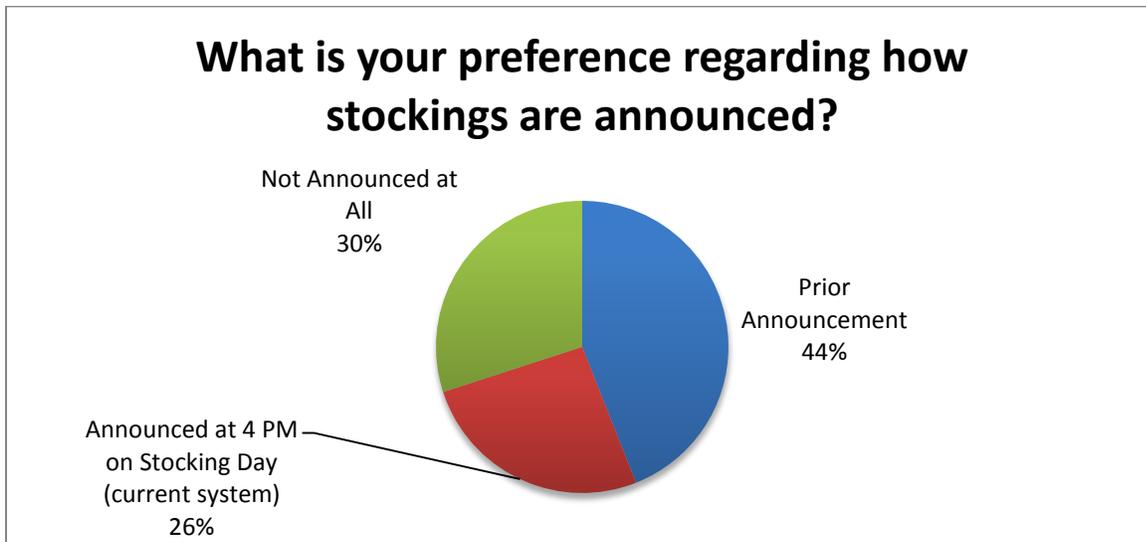


Figure 7. Preferences for how trout stockings are announced.

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).

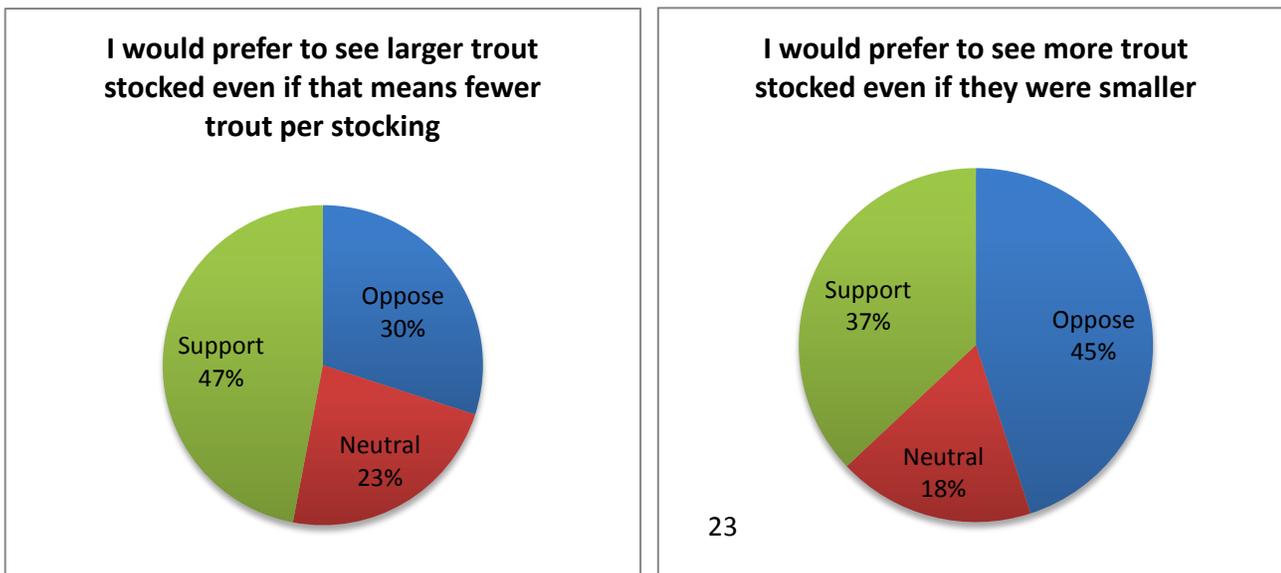


Figure 8. Support for VDGIF stocking more but smaller trout and for fewer but larger trout.

### **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).

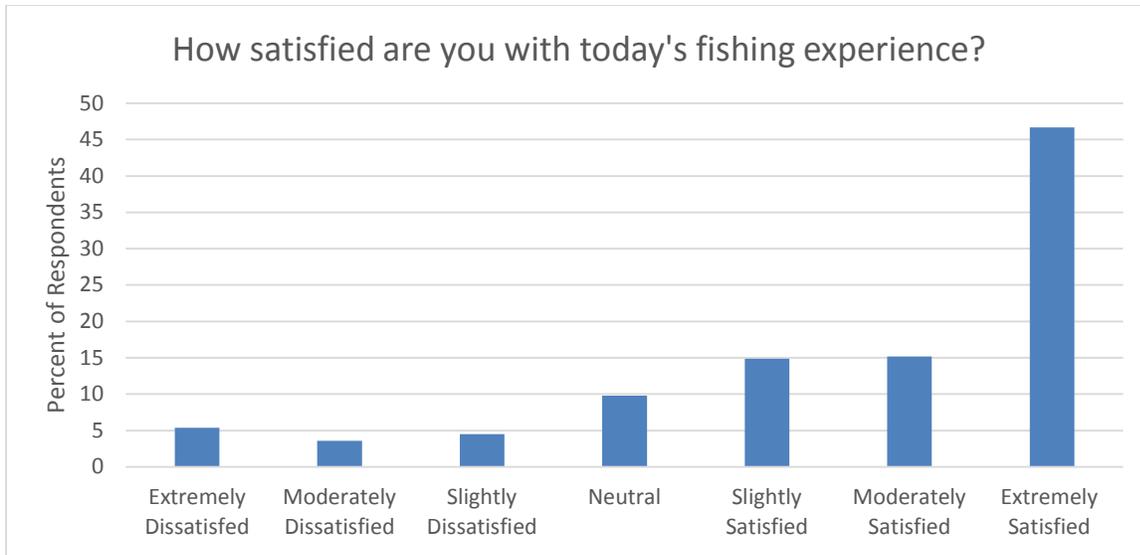


Figure 9. Angler satisfaction with fishing on day of interview.

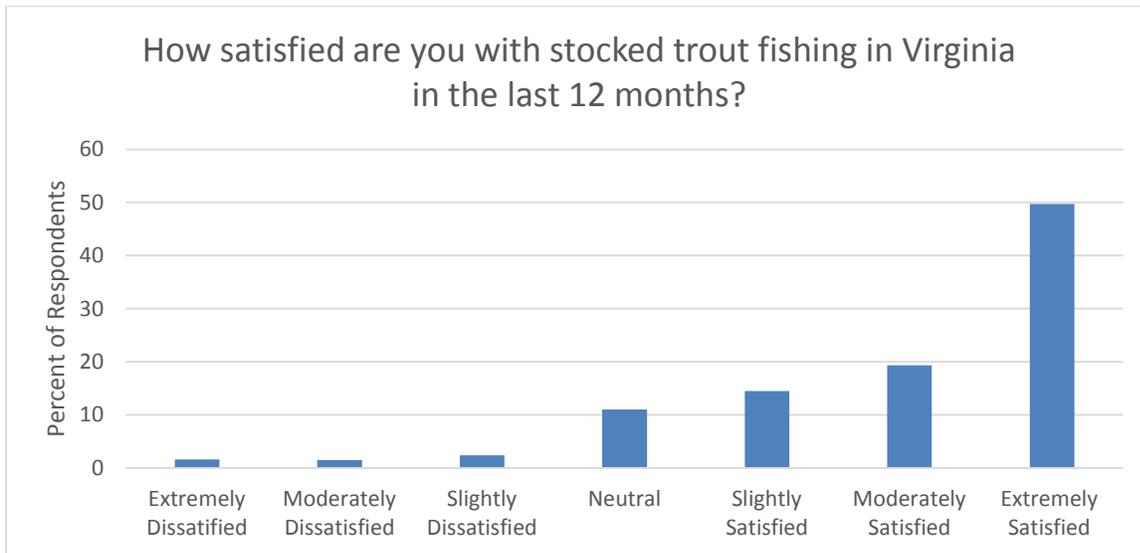


Figure 10. Angler satisfaction with stocked trout fishing during the last 12 months.

### 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.

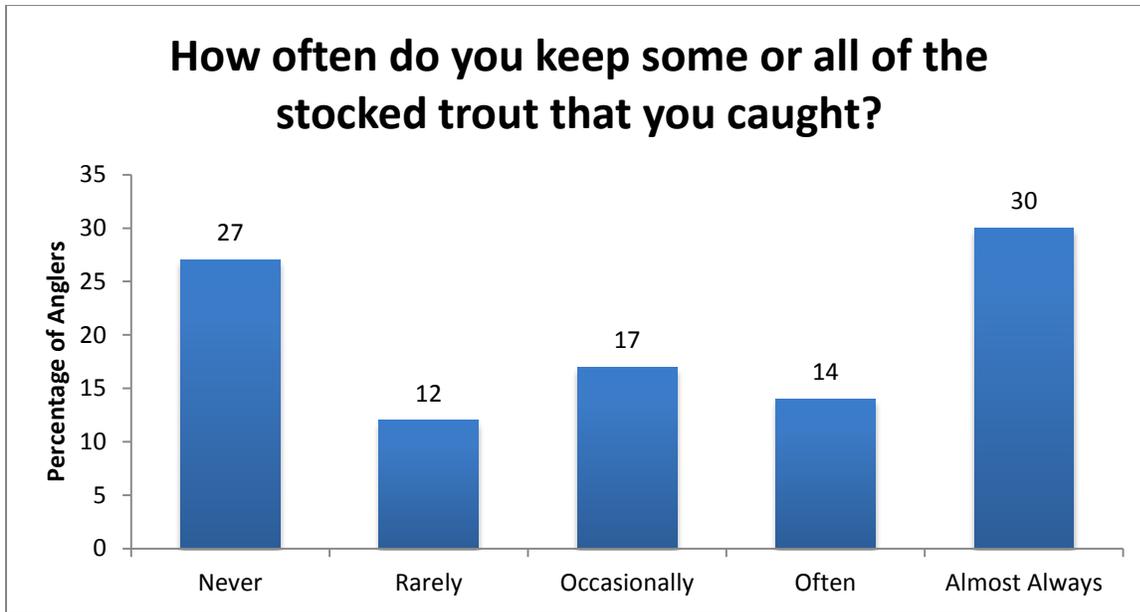


Figure 11. Relative frequency of how often anglers harvest stocked trout.

### 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.

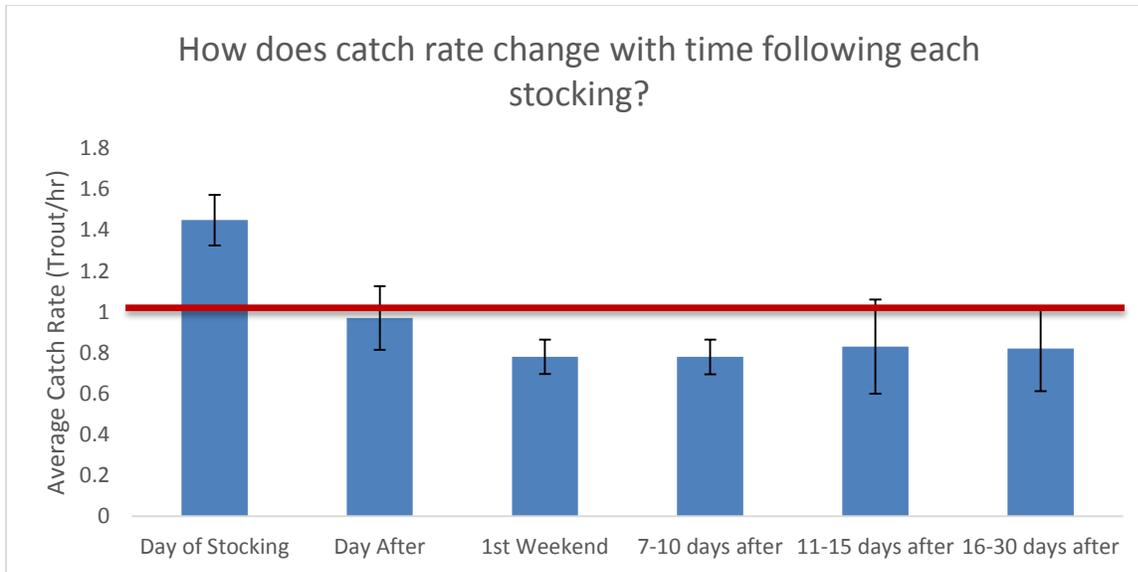


Figure 12. The average number of trout caught per hour of fishing relative to the day of stocking. The horizontal line represents the objective of one trout caught per hour of fishing, while the black vertical bars represent the mean standard error.

### 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).

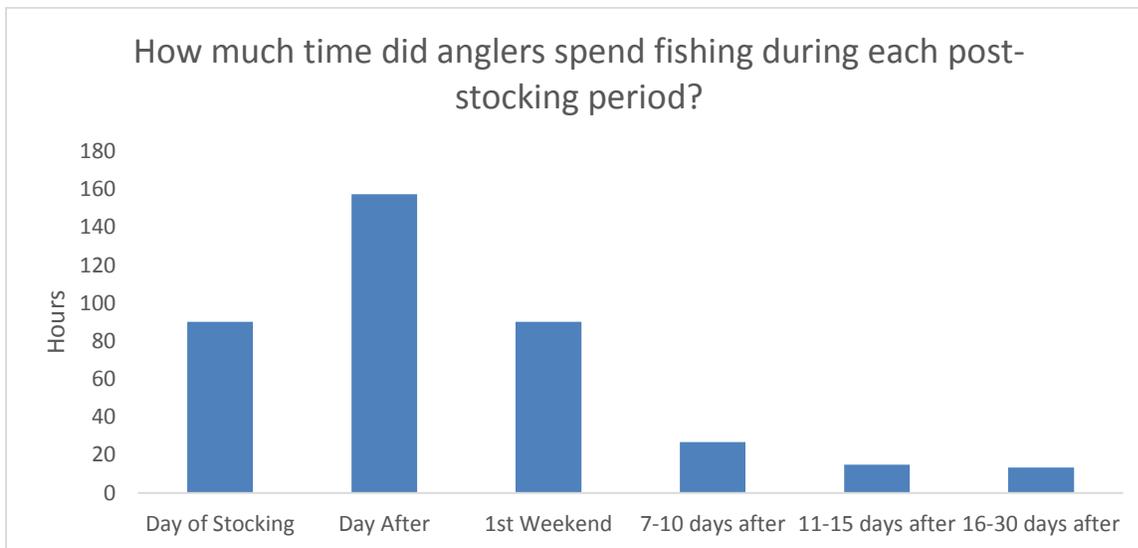


Figure 13. Distribution of time spent fishing relative to day of stocking.

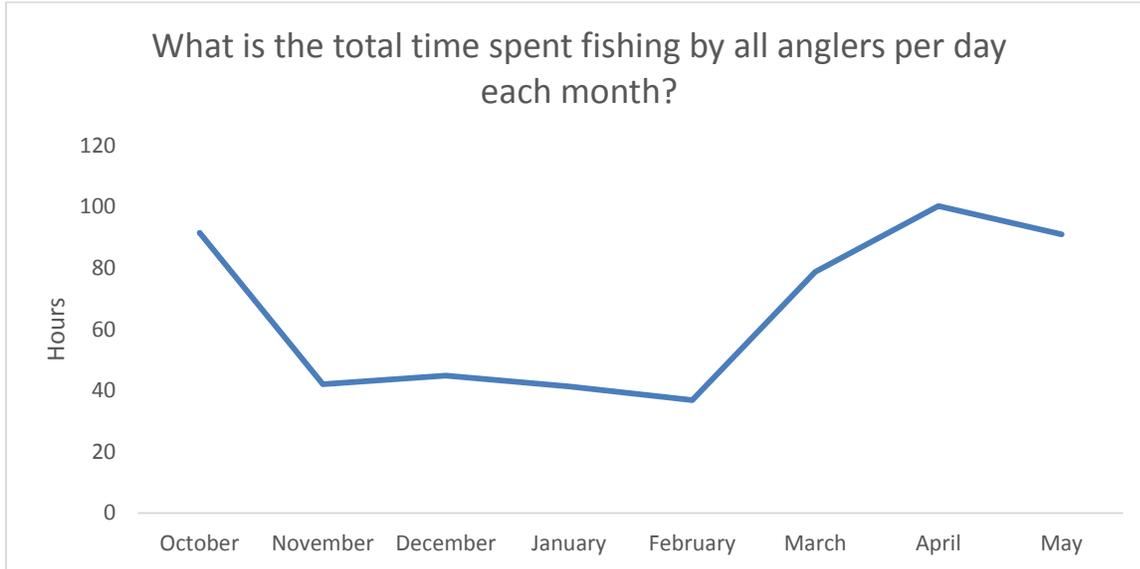


Figure 14. Monthly averages of time spent fishing for stocked trout.

### 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.

Fish Culture Station	Construction era	Species		Technology			Challenges
		Reared	Spawned	Triploid egg production	Oxygen supplement	UV filtration	
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.

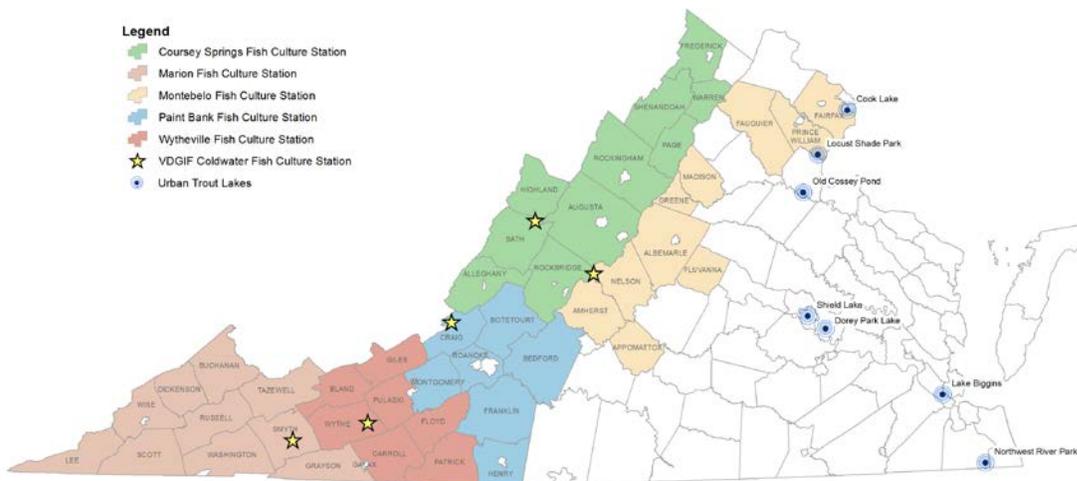


Figure 15. Trout production facility locations and the geographic areas they service. Urban trout lakes are serviced by Montebello and Coursey Springs Fish Culture Stations.

## **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 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.

1. 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	#
<b>VDGIF web comments</b>				
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 very 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 loss 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

VIRGINIA STOCKED TROUT MANAGEMENT PLAN (2016-2025)

<b>Location</b>	<b>Comment</b>	<b>Goal Area</b>	<b>DGIF Response</b>	<b>#</b>
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

VIRGINIA STOCKED TROUT MANAGEMENT PLAN (2016-2025)

<b>Location</b>	<b>Comment</b>	<b>Goal Area</b>	<b>DGIF Response</b>	<b>#</b>
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 basicy 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 <a href="http://www.dgif.virginia.gov/volunteer/#cnf">www.dgif.virginia.gov/volunteer/#cnf</a> 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 frequencities were adopted to allow for more flexibility for the hatcheries. This strategy also allows for the hatcheries to stock a higher quality fish.	13

VIRGINIA STOCKED TROUT MANAGEMENT PLAN (2016-2025)

<b>Location</b>	<b>Comment</b>	<b>Goal Area</b>	<b>DGIF Response</b>	<b>#</b>
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 <a href="http://dgif-virginia.maps.arcgis.com/apps/webappviewer/index.html?id=441ed456c8664166bb735b1db6024e48">http://dgif-virginia.maps.arcgis.com/apps/webappviewer/index.html?id=441ed456c8664166bb735b1db6024e48</a> 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 <a href="http://www.dgif.virginia.gov/education/fishing/">http://www.dgif.virginia.gov/education/fishing/</a> for more information.	16
Chesterfield	All licenses should be worn so that they are 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

VIRGINIA STOCKED TROUT MANAGEMENT PLAN (2016-2025)

<b>Location</b>	<b>Comment</b>	<b>Goal Area</b>	<b>DGIF Response</b>	<b>#</b>
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 <a href="http://www.dgif.virginia.gov/education/fishing/">http://www.dgif.virginia.gov/education/fishing/</a> 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

VIRGINIA STOCKED TROUT MANAGEMENT PLAN (2016-2025)

<b>Location</b>	<b>Comment</b>	<b>Goal Area</b>	<b>DGIF Response</b>	<b>#</b>
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 eliminate 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

VIRGINIA STOCKED TROUT MANAGEMENT PLAN (2016-2025)

<b>Location</b>	<b>Comment</b>	<b>Goal Area</b>	<b>DGIF Response</b>	<b>#</b>
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

VIRGINIA STOCKED TROUT MANAGEMENT PLAN (2016-2025)

Location	Comment	Goal Area	DGIF Response	#
Out of state	<p>why ask for public comment? vdgif does what they want regardless of public opinion.</p> <p>just look at the new bear tag fee that passed with an over 2 to 1 ratio against it.</p>	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 <a href="http://dgif-virginia.maps.arcgis.com/apps/webappviewer/index.html?id=441ed456c8664166bb735b1db6024e48">http://dgif-virginia.maps.arcgis.com/apps/webappviewer/index.html?id=441ed456c8664166bb735b1db6024e48</a> 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 feasibility 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

VIRGINIA STOCKED TROUT MANAGEMENT PLAN (2016-2025)

<b>Location</b>	<b>Comment</b>	<b>Goal Area</b>	<b>DGIF Response</b>	<b>#</b>
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

VIRGINIA STOCKED TROUT MANAGEMENT PLAN (2016-2025)

<b>Location</b>	<b>Comment</b>	<b>Goal Area</b>	<b>DGIF Response</b>	<b>#</b>
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

VIRGINIA STOCKED TROUT MANAGEMENT PLAN (2016-2025)

<b>Location</b>	<b>Comment</b>	<b>Goal Area</b>	<b>DGIF Response</b>	<b>#</b>
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

VIRGINIA STOCKED TROUT MANAGEMENT PLAN (2016-2025)

<b>Location</b>	<b>Comment</b>	<b>Goal Area</b>	<b>DGIF Response</b>	<b>#</b>
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

VIRGINIA STOCKED TROUT MANAGEMENT PLAN (2016-2025)

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

VIRGINIA STOCKED TROUT MANAGEMENT PLAN (2016-2025)

<b>Location</b>	<b>Comment</b>	<b>Goal Area</b>	<b>DGIF Response</b>	<b>#</b>
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, &quot;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

VIRGINIA STOCKED TROUT MANAGEMENT PLAN (2016-2025)

<b>Location</b>	<b>Comment</b>	<b>Goal Area</b>	<b>DGIF Response</b>	<b>#</b>
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

VIRGINIA STOCKED TROUT MANAGEMENT PLAN (2016-2025)

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

VIRGINIA STOCKED TROUT MANAGEMENT PLAN (2016-2025)

<b>Location</b>	<b>Comment</b>	<b>Goal Area</b>	<b>DGIF Response</b>	<b>#</b>
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 some way 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

VIRGINIA STOCKED TROUT MANAGEMENT PLAN (2016-2025)

<b>Location</b>	<b>Comment</b>	<b>Goal Area</b>	<b>DGIF Response</b>	<b>#</b>
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

VIRGINIA STOCKED TROUT MANAGEMENT PLAN (2016-2025)

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
<b>Comments received during public meetings Sept-Oct. 2015</b>				
	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

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<b>Location</b>	<b>Comment</b>	<b>Goal Area</b>	<b>DGIF Response</b>	<b>#</b>
	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

VIRGINIA STOCKED TROUT MANAGEMENT PLAN (2016-2025)

<b>Location</b>	<b>Comment</b>	<b>Goal Area</b>	<b>DGIF Response</b>	<b>#</b>
	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 <a href="http://www.dgif.virginia.gov/volunteer/#cwf">http://www.dgif.virginia.gov/volunteer/#cwf</a> for more information.	110

VIRGINIA STOCKED TROUT MANAGEMENT PLAN (2016-2025)

<b>Location</b>	<b>Comment</b>	<b>Goal Area</b>	<b>DGIF Response</b>	<b>#</b>
	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

VIRGINIA STOCKED TROUT MANAGEMENT PLAN (2016-2025)

<b>Location</b>	<b>Comment</b>	<b>Goal Area</b>	<b>DGIF Response</b>	<b>#</b>
	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

VIRGINIA STOCKED TROUT MANAGEMENT PLAN (2016-2025)

<b>Location</b>	<b>Comment</b>	<b>Goal Area</b>	<b>DGIF Response</b>	<b>#</b>
	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

VIRGINIA STOCKED TROUT MANAGEMENT PLAN (2016-2025)

<b>Location</b>	<b>Comment</b>	<b>Goal Area</b>	<b>DGIF Response</b>	<b>#</b>
	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

VIRGINIA STOCKED TROUT MANAGEMENT PLAN (2016-2025)

<b>Location</b>	<b>Comment</b>	<b>Goal Area</b>	<b>DGIF Response</b>	<b>#</b>
	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

VIRGINIA STOCKED TROUT MANAGEMENT PLAN (2016-2025)

<b>Location</b>	<b>Comment</b>	<b>Goal Area</b>	<b>DGIF Response</b>	<b>#</b>
	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

VIRGINIA STOCKED TROUT MANAGEMENT PLAN (2016-2025)

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
<b>Comments received via letter</b>				
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

VIRGINIA STOCKED TROUT MANAGEMENT PLAN (2016-2025)

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

VIRGINIA STOCKED TROUT MANAGEMENT PLAN (2016-2025)

<b>Location</b>	<b>Comment</b>	<b>Goal Area</b>	<b>DGIF Response</b>	<b>#</b>
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	
<b>STOCKING ANNOUNCEMENTS</b>		
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.
<b>ANGLER RECRUITMENT AND RETENTION</b>		
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.
<b>FUNDING AND ADMINISTRATION</b>		
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.
<b>ECOSYSTEM EFFECTS</b>		
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.
<b>RECREATIONAL OPPORTINITIES</b>		
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.

