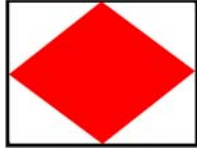


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2015 Drawdown Report



The Claytor Lake Technical Advisory Committee and
The Friends of Claytor Lake.

Claytor Project No. 739
January 1, 2016

2015 CLAYTOR LAKE DRAWDOWN REPORT

The Federal Energy Regulatory Commission (Commission) issued Order Issuing New License on December 27, 2011 (License) to Appalachian Power Company (Appalachian) allowing the continued operation of the Claytor Hydroelectric Project. As part of the approved Water Management Plan (Article 405 of the License), Appalachian may conduct non-emergency reservoir drawdowns for the purpose of minimizing the impact of any project maintenance activity requiring a reservoir drawdown on aquatic resources in the project reservoir and downstream of the project and to allow shoreline property owners sufficient time to plan shoreline maintenance activities.

In accordance with the Water Management Plan, Appalachian consulted with the U.S. Fish and Wildlife Service, Virginia Department of Game and Inland Fisheries, Virginia Department of Conservation and Recreation, Virginia Department of Environmental Quality, Pulaski County, New River Planning District Commission and the Friends of Claytor Lake (FOCL) on the 2015 Claytor Lake drawdown plan, which was developed through Pulaski County's Claytor Lake Technical Advisory Committee (CLTAC). Following consultation, Appalachian filed the plan with the Commission on June 5, 2015. On June 30, the Commission issued *Order Approving Reservoir Drawdown Plan Under Article 405* (Order). The purpose of the scheduled drawdown was to allow shoreline property owners to conduct shoreline maintenance activities while minimizing the impact of the drawdown on aquatic resources within the Project boundary.

A non-emergency drawdown of Claytor Lake for shoreline maintenance purposes was last conducted in November 2012. Included were mussel salvage activities to mitigate for impacts to mussels. Another drawdown was planned and approved for November 2014, but the drawdown was cancelled due to problems with Pulaski County's water intake in the lake. The drawdown plan for 2015 was patterned after the 2012 and 2014 drawdown plans. The following is a report on the implementation of the 2015 drawdown.

Publicity/Education

On October 6, 2015, Appalachian sent a letter to Claytor Lake residents informing them of the details regarding the drawdown scheduled for November 2015. The letter also contained information about mussel salvage during drawdown, including instructions on returning dewatered mussels to deeper water and photos of mussels commonly found in Claytor Lake. Special instructions were given in the event Pistolgrip mussels (*Tritogonia verrucosa*), a state threatened species, were found. Appalachian also issued news releases informing the public of the pending drawdown as well as of the changes in water levels during the drawdown as a result of high inflows.

Pulaski County included in their October - December 2015 Pulaski County Citizen Newsletter an article on Claytor Lake's scheduled drawdown. In addition to information on the timing of drawdown, citizens were encouraged to assist in returning stranded mussels to the water.

FOCL provided information about drawdown and mussel salvage through its website, on its Facebook page, in emails and in its fall newsletter. In the newsletters sent to lake area residents was included a post card to be returned to FOCL with information on how shoreline property owners used drawdown, how many mussels were returned to the water, and the length of shoreline involved.

Drawdown Schedule

The 2015 drawdown was scheduled to begin Wednesday, November 4, 2015 at 8 a.m. The reservoir was to be lowered one foot per day until it reached the 1843 foot contour elevation (for a total of three feet below full pond) on Saturday morning, November 7, 2015. The reservoir was to remain three to four feet down until 10 p.m. Sunday, November 15, 2015, when refilling was to begin. The lake was to return its normal elevation by Wednesday evening, November 18, 2015.

Lowering of the reservoir began as scheduled on November 4, 2015. Rain during the drawdown affected the level of the drawdown, however, and the reservoir rose to 1844 feet during the drawdown period. Because higher water levels disrupted some shoreline work, FOCL asked for an extension of the drawdown. Appalachian with the approval of all involved agencies verbally asked Commission staff about the possibility of an extension but Commission staff denied the request, citing that no provision

had been made in the original plan or in the Order for changing the drawdown. As such, several property owners and contractors were not able to complete their work.

On November 18, 2015, the reservoir returned to an elevation of 1845 which was within the minimum license requirement for November.

Mussel Salvage Event

As with the 2012 and 2014 drawdown plans, a key component of the 2015 plan was mitigating for impacts to mussels. Mussel mitigation involved recruiting lakeshore property owners and volunteers to return mussels stranded by drawdown to deeper water. In addition to publicity about mussel salvage sent out by Appalachian, Pulaski County and FOCL, a volunteer mussel salvage event was held on Saturday, November 7, 2015. The event was organized by FOCL with generous support and participation by Appalachian, VDGIF, Claytor Lake State Park, Pulaski County, FOCL, local schools, organizations, business and others.

Ninety-eight individuals participated in the mussel salvage event on November 7. Volunteers included 11 from Appalachian, 8 from VDGIF, 18 from Pulaski High School, 15 New River Chapter Master Naturalists, 10 Radford University Wildlife Society members, 10 FOCL members, 5 from the Virginia Tech American Fisheries Society, 1 from Virginia Tech's Freshwater Mollusk Conservation Center, 2 staff members from Claytor Lake State Park, 4 members of Claytor Lake State Park Ambassadors, 2 from Radford University Geography Club, 1 from New River Community College, 1 from Virginia Eagle Distributing Company, and 10 local citizens/property owners.

Participants met at one of two meeting sites: Water's Edge marina meeting facility at Claytor Lake State Park and Pulaski County's Harry DeHaven Park. Breakfast and lunch foods and drinks were provided by FOCL and Virginia Eagle Distributing Company.

Following training and orientation by VDGIF and FOCL, volunteers were deployed in teams to 11 mussel salvage sites on foot, by car, and by boats provided by VDGIF, Appalachian, and FOCL. Multiple teams were sent to sites with long stretches of shoreline. In order to compare data from year-to-year, the same sites salvaged in 2012 were selected for salvage in 2015.

Volunteers were instructed to count and gently toss mussels into deeper water without identifying mussel species unless they suspected a Pistolgrip. Teams with VDGIF personnel did identify mussel species at their salvage sites. Species identified were Giant Floater (*Pyganodon grandis*), Paper Pondshell (*Utterbackia imbecillis*), Pocketbook (*Lampsilis ovata*), Eastern Elliptio (*Elliptio complanata*), and Pistolgrip (*Tritogonia verrucosa*).

The total number of mussels salvaged during the 2015 mussel salvage event was 1,363, which included 20 Pistolgrip mussels found at one site. This compares to a total of 6,797 salvaged in 2012 with 4 Pistolgrip mussels found at the same site as in 2015. The difference in total mussels found may be a natural variation and not reflective of population changes. Another possibility is that higher water levels in 2015 resulted in fewer dewatered mussels than in 2012, though water levels were not noted in 2012. In addition, more mussels may have already moved from shallow shoreline areas to deeper water during emergency drawdowns in September and October 2015 due to high water events. The fact that more Pistolgrip mussels were found in 2015 than in 2012 suggests that reproduction of Pistolgrip mussels is occurring at that site.

Drawdown Use and Mussel Salvage by Shoreline Property Owners

Shoreline property owners were also encouraged to return stranded mussels to deeper water during drawdown. Of the post cards sent in FOCL's fall newsletter, 65 responses representing at least 12,447 feet of shoreline were received from property owners reporting on their use of drawdown and/or mussel salvage efforts.

Of the respondents, 1 reported installing new shoreline stabilization, 29 conducted dock maintenance, 32 repaired existing shoreline stabilization, 44 cleaned up debris, and 2 performed other shoreline maintenance. Several noted that the drawdown was not deep enough or long enough to do work and that rising water was a problem.

Not all respondents made note of mussels. Of those who reported looking for mussels, 21 responded that no live mussels were found along their shorelines (representing at least 3,347 feet). The shoreline of 3 respondents was salvaged during the volunteer salvage event and mussel salvage numbers were included with the salvage event totals. Respondents who found live mussels during the scheduled drawdown reported salvaging 429 mussels along 8,167 feet of shoreline. When added to the number of mussels salvaged during the volunteer mussel salvage event on November 7, a total of 1,792 mussels were salvaged during the 2015 drawdown. This compares to 8,975 total mussels salvaged during the 2012 drawdown.

Recommendation for Future Drawdowns

Include wording in the plan to allow for changes in the drawdown including dates and/or duration should circumstances warrant it at the time.

Included with this report:

2015 Drawdown Plan

Appalachian Oct 6, 2015 letter to residents

photos of Nov 7 mussel salvage event

Nov 7 mussel salvage counts by site

spreadsheet of property owner responses & copy of response card

2015 drawdown levels

2015 CLAYTOR LAKE DRAWDOWN PLAN

Background

The Federal Energy Regulatory Commission (Commission) granted Appalachian Power Company (Appalachian) a license to operate the Claytor Hydroelectric Project December 27, 2011. As part of the approved Water Management Plan (Article 405), Appalachian may conduct non-emergency reservoir drawdowns upon mutual agreement between the licensee and the Virginia Department of Environmental Quality (VDEQ), in conjunction with the U.S. Fish and Wildlife Service (FWS), the Virginia Department of Game and Inland Fisheries (VDGIF), the Virginia Department of Conservation and Recreation (VDCR), Pulaski County, the New River Planning District Committee, and the Friends of Claytor Lake (FOCL) following appropriate public input as determined by VDEQ.

At least three months prior to implementing a non-emergency reservoir drawdown, Appalachian is required to file with the Commission, for approval, a reservoir drawdown plan. The purpose of the drawdown plan is (1) to minimize the impact of a drawdown to aquatic resources in the project reservoir and (2) to allow shoreline property owners to conduct shoreline maintenance activities. The plan filed with the Commission is to be prepared in consultation with the FWS, VDEQ, VDGIF, VDCR, Pulaski County, New River Planning Commission, and FOCL, all of whom will have 30 days to comment on the proposal.

Efforts began in 2011 through Pulaski County's Claytor Lake Technical Advisory Committee (CLTAC) to modify previous drawdown plans for shoreline maintenance to decrease impacts to mussels. (The CLTAC includes representatives from a majority of the above referenced agencies.) Modified drawdowns were held in 2011 and 2012 according to plans developed through the CLTAC. A 2014 drawdown plan was developed through the CLTAC and approved by the Commission, but prior to implementation the drawdown was cancelled at the request of Pulaski County due to problems with the County's water intake in the lake. Below is CLTAC's proposed 2015 drawdown plan which duplicates the 2014 plan.

2015 Drawdown Proposal

1. Conduct drawdown from **November 7 through November 15, 2015**. (Drawdown scheduled during early November to avoid freezing temperatures, and to minimize the impact to recreation.)
2. Depth of drawdown to be three feet from full pond elevation of 1846 NGVD.

3. Lake level to be drawn down one foot per day starting 8 a.m. on **November 4, 2015** to reach 1843 NGVD by 8 a.m. Saturday, **November 7, 2015**.

4. Duration of the drawdown to be nine days, including two weekends.

5. Lake to be allowed to begin refilling at 10 p.m. Sunday, **November 15, 2015**, with targeted return to normal elevation by 10 p.m. Wednesday, **November 18, 2015**.

6. Appalachian to inform public of drawdown at least 45 days prior to implementation.

7. FOCL to encourage participation and publicize information about drawdown and mussel salvage through media, mailings, phone calls and internet. Information to include distinction between Asian Clams, pistolgrip mussels and other mussels, and the importance of mussel salvage.

8. FOCL to gather information about drawdown usage and mussel salvage from landowners and volunteers. (Send drawdown questionnaire card just prior to drawdown.)

9. Volunteer mussel salvage event to be conducted on the first Saturday of full drawdown to increase number of dewatered mussels returned to the water. (As in 2012.) Team leaders, boat transportation, materials, meeting locations, volunteers and volunteer recruitment, refreshments and organization to be provided by FOCL, VDGIF, Appalachian, Claytor Lake State Park, Pulaski County and others.

a. Conduct meetings for organizers and team leaders prior to the event, including during the week of the event and on Saturday morning prior to the arrival of volunteers, to organize the event, and train and coordinate team leaders in mussel identification, location (GPS) and data collection, site and volunteer selection, distribution of materials and logistics of the event.

b. Volunteer training to be provided by VDGIF prior to deployment in teams with team leaders Saturday morning. Volunteers to be trained in returning mussels to the water and provided information with which to distinguish between Asian Clams (not to be salvaged), and pistolgrips and other mussels. Volunteers to be provided information prior to the event on what to expect and how to come prepared.

c. VDGIF to provide up to three teams experienced in mussel identification to identify and tally mussels by species; other volunteer teams to focus on counting and salvaging total numbers of mussels. (Volunteers to identify only pistolgrip mussels.)

d. Appropriate data collection sheets to be provided.

e. Mussel salvage sites to be selected and prioritized based on likely mussel habitat and previous mussel findings.

f. Hours of event to be organized to optimize volunteer time.

g. Adequate food and drink to be provided.

h. Coordination with mussel salvage by other entities, such as the Claytor Lake State Park, to be continued.

10. Regulatory agencies to have 30 days beginning no later than **April 15, 2015** to comment on the drawdown plan prior to Appalachian's submission to the Commission.

11. Appalachian to file the drawdown plan with the Commission no later than **June 1, 2015** to allow for the Commission's required three month review period. Included with the filing will be documentation of consultation with stakeholders as required in Appalachian's license.

12. Summary report following drawdown to be prepared through CLTAC with assistance from FOCL, VDGIF and others as needed.

13. Future drawdown plans to be based on the previous years' results, and revised as appropriate.

14. Drawdowns to be proposed for every other year to allow for mussel repopulation and shoreline maintenance. (Change from previous annual drawdowns.)



CLAYTOR LAKE TECHNICAL ADVISORY COMMITTEE (CLTAC)

Organizations Represented

Pulaski County
Appalachian Power Company
Virginia Department of Game and Inland Fisheries
Virginia Department of Environmental Quality
Virginia Department of Conservation and Recreation
Virginia Co-operative Extension - Pulaski County
Friends of Claytor Lake
Skyline Soil and Water District
National Resource Conservation Service
Coast Guard Auxiliary
Army Corps of Engineers
Ducks Unlimited
Bass Federation Nation
Pepper's Ferry Regional Waste Water
Boy Scouts of America
Virginia Department of Health

Sample Card

Drawdown Work:

Documentation of drawdown work is important. Please provide the following:

Name: _____

Lake Address: _____

Total lake frontage _____ feet. Feet of shoreline accessible _____.

Work completed during the drawdown:

- Shoreline stabilization (new) _____ft_____ (type)
- Dock Maintenance _____ft_____ (type)
- Shoreline stabilization repair _____ft_____ (type)
- Shoreline cleanup of debris _____ft_____ (amount/type)
- Other: _____

Mussels:

Please pick up mussels encountered during the drawdown and gently toss them 5-10' into the water. Let us know about your efforts:

_____ # mussels found _____ # mussels relocated _____ feet of shoreline involved

Email Address: _____

<u>New Stabilization</u>	<u>Dock Maint.</u>	<u>Shoreline Repair</u>	<u>Clean-up</u>	<u>Other</u>	<u>Mussels Salvaged</u>	<u>Feet Shoreline</u>	<u>Notes</u>
	yes		40'		48	3,000	all mussels found in shallow water; little dewatered
			100'		50	40	
300' -riprap					0	100	water not low enough
		80'			vol. salv.	300	water not low enough for work, esp. w/rising water
					15	80	
		45' - block	125'		3	125	
			200'			200	
		50' riprap, etc	50'		50	50	HOA repairs, cleanup,
	yes	100' seawall				100	
	yes	yes			0	100	
		500'			50	500	
	yes	22'	yes		vol.salv.	22	
	yes		yes		15	60	
							drawdown not deep enough - need 7'
	yes		yes		0	75	
	yes				0		
			yes		25		
	yes						
		100' - stone			0	100	
					0		water not down enough to do work
		120' rock			20	120	
		50-100' rock	yes			100	
	yes		yes		18	250	
	yes		yes		20	900	
			yes		17	50	
	yes	6'	yes			6	
	yes	75'	yes			75	
		75' - rock	yes		0	300	
		297'	yes		3	297	
	yes		yes		10	140	
		200' concrete			2	200	

<u>New Stabilization</u>	<u>Dock Maint.</u>	<u>Shoreline Repair</u>	<u>Clean-up</u>	<u>Other</u>	<u>Mussels Salvaged</u>	<u>Feet Shoreline</u>	<u>Notes</u>
	yes	yes	yes		0	100	
			yes		50	150	
							need min. 5' drawdown to do work
			yes		1	1000	
		20'	yes		7	200	lake not down far or long enough
		25'	yes		15	250	
	yes		yes				
	yes	150'	yes		25	300	
		270'	yes		0	270	
				boat launch repair	8	148	
			yes		0		
		30'	yes		0	30	
	yes		yes		10	100	
	yes		yes	repaired steps from dock	9	100	
	yes		yes		0	30	
		10' concrete				10	
	yes	10' rock	25'		0	25	
	yes	60' seawall maint.	yes			60	
	yes						
	yes	50'	yes			50	
			yes		2	125	
			yes		0	208	
	yes				0	85	need more than 3'
		30'	yes		6	32	
		300'	300'		0	300	
	yes						
		yes	yes		0	100	
		yes	yes		0	50	

	yes			yes		0	104	
	yes			yes		0		
		20'		100'			100	
	yes			yes		vol. salv.		
		1200' rock repair				0	1200	
	yes	30'					30	
1	29	32		44	2	429	12,447	
New Stabilization	Dock Maint.	Shoreline Repair		Clean-up	Other	Mussels Salvaged	Feet Shoreline	

October 6, 2015

Re: Claytor Project No. 739
Water Management Plan
2015 Drawdown of Claytor Lake

Dear Resident:

In cooperation with Friends of Claytor Lake (FOCL) and Pulaski County, Appalachian Power Company (Appalachian) requested and received approval from the Federal Energy Regulatory Commission (Commission) for a temporary drawdown of the Claytor reservoir during November 2015. The purpose of the drawdown is to provide property owners an opportunity to perform shoreline stabilization, cleanup and other maintenance related activities along the shoreline¹. Vegetation removal from within the Project boundary (generally the 1850 foot contour elevation and below) is not allowed unless prior approval is obtained from Appalachian.

The 2015 drawdown is scheduled to begin Wednesday, November 4, 2015 at 8 am. The reservoir will be lowered one (1) foot per day until it reaches the 1843 foot contour elevation (for a total of 3 feet) on Saturday morning, November 7, 2015. The reservoir will start refilling on the evening of Sunday, November 15, 2015 with a target date of being back to normal elevation by Wednesday evening, November 18, 2015. Water levels may fluctuate between three to four feet down from full pond (1846 feet) during the drawdown period.

Commission approval was based on a drawdown plan² developed in consultation with FOCL, Pulaski County and various state agencies. The drawdown plan includes proposed mitigation for impacts to mussels. This is where you come in. Mitigation for 2015 includes efforts to increase mussel salvage during the drawdown. This means we need your help in returning mussels (pictures attached) to the water if they are stranded along your shoreline during the drawdown. If you see mussels along the shoreline, please pick them up and gently toss them 5-10 feet into the water. Complete the postcard that you will receive in FOCL's October newsletter to document your efforts and mail the completed card to FOCL. If you do not receive the FOCL postcard or would like additional information regarding mussel salvage efforts during the drawdown, please visit FOCL's website, www.focl.org. A mussel salvage event will be held Saturday November 7 during which organized teams of volunteers will walk along the shoreline returning mussels to the water. If you would like to participate in the mussel salvage event, contact Laura Bullard at 540-392-3055 or sunnyside@psknet.com.

For those who participate in the mussel salvage, please note that Asian clams do not have to be returned to the reservoir. A picture of an Asian clam is attached.

Please note that the drawdown may be cancelled or reduced on short notice if inflows are insufficient to refill the reservoir in a timely manner or if a flood event occurs. The public will be notified via a press release if the drawdown is cancelled.

Sincerely,



Elizabeth B. Parcell
Process Supervisor Senior

2012 - 2015 Drawdown Comparison:

<u>SITE</u>	<u>11/7/15</u>	<u>2012 #'s</u>
Bullard Farm	423	1,341
Roseberry & Dublin Hollows	79	224
Mallard Pt & Island btw Roseberry & Dublin Hollows	128	760
Claytor Lake State Park	440	1,758
Baptist Camp	29	247
Claytor Lake Estates	6	146
Harry DeHaven	92	1,202
Lakeview & Shadowland	36	595
Cecil's Chapel	20	260
Sprakers/Fintels	104	257
	includes 20 pistolgrip	includes 4 pistolgrip
Blackberry Lane	<u>6</u>	<u>7</u>
TOTALS	1,363	6,797

2015 Lake Forbay Results:

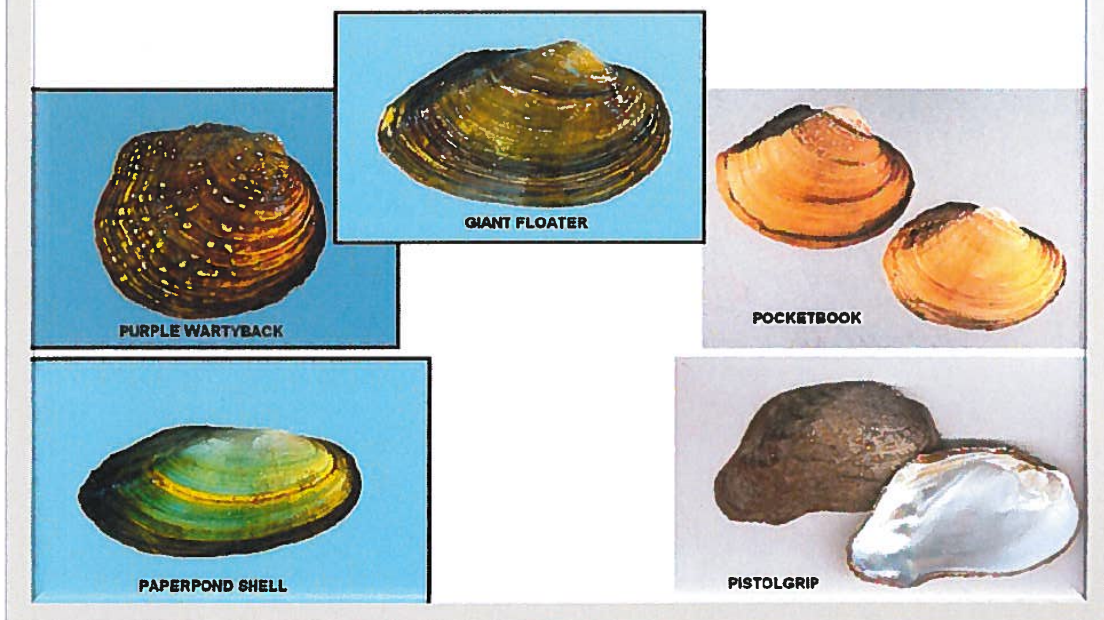
Date	Forebay	11/5/15 21:00	1843.66	11/7/15 18:00	1843.1	11/9/15 15:00	1843.11
11/4/15 1:00	1845.26	11/5/15 22:00	1843.62	11/7/15 19:00	1843.1	11/9/15 16:00	1843.13
11/4/15 2:00	1845.28	11/5/15 23:00	1843.59	11/7/15 20:00	1843.09	11/9/15 17:00	1843.15
11/4/15 3:00	1845.29	11/6/15 0:00	1843.56	11/7/15 21:00	1843.09	11/9/15 18:00	1843.18
11/4/15 4:00	1845.3	11/6/15 1:00	1843.53	11/7/15 22:00	1843.09	11/9/15 19:00	1843.21
11/4/15 5:00	1845.32	11/6/15 2:00	1843.5	11/7/15 23:00	1843.08	11/9/15 20:00	1843.24
11/4/15 6:00	1845.33	11/6/15 3:00	1843.47	11/8/15 0:00	1843.08	11/9/15 21:00	1843.26
11/4/15 7:00	1845.35	11/6/15 4:00	1843.44	11/8/15 1:00	1843.08	11/9/15 22:00	1843.29
11/4/15 8:00	1845.35	11/6/15 5:00	1843.42	11/8/15 2:00	1843.08	11/9/15 23:00	1843.32
11/4/15 9:00	1845.31	11/6/15 6:00	1843.39	11/8/15 3:00	1843.08	11/10/15 0:00	1843.35
11/4/15 10:00	1845.27	11/6/15 7:00	1843.36	11/8/15 4:00	1843.08	11/10/15 1:00	1843.41
11/4/15 11:00	1845.22	11/6/15 8:00	1843.34	11/8/15 5:00	1843.08	11/10/15 2:00	1843.47
11/4/15 12:00	1845.18	11/6/15 9:00	1843.31	11/8/15 6:00	1843.08	11/10/15 3:00	1843.53
11/4/15 13:00	1845.11	11/6/15 10:00	1843.29	11/8/15 7:00	1843.08	11/10/15 4:00	1843.57
11/4/15 14:00	1845.05	11/6/15 11:00	1843.28	11/8/15 8:00	1843.08	11/10/15 5:00	1843.6
11/4/15 15:00	1844.99	11/6/15 12:00	1843.26	11/8/15 9:00	1843.07	11/10/15 6:00	1843.63
11/4/15 16:00	1844.93	11/6/15 13:00	1843.24	11/8/15 10:00	1843.07	11/10/15 7:00	1843.67
11/4/15 17:00	1844.87	11/6/15 14:00	1843.23	11/8/15 11:00	1843.06	11/10/15 8:00	1843.71
11/4/15 18:00	1844.82	11/6/15 15:00	1843.2	11/8/15 12:00	1843.05	11/10/15 9:00	1843.77
11/4/15 19:00	1844.78	11/6/15 16:00	1843.17	11/8/15 13:00	1843.05	11/10/15 10:00	1843.78
11/4/15 20:00	1844.72	11/6/15 17:00	1843.16	11/8/15 14:00	1843.04	11/10/15 11:00	1843.78
11/4/15 21:00	1844.66	11/6/15 18:00	1843.15	11/8/15 15:00	1843.04	11/10/15 12:00	1843.79
11/4/15 22:00	1844.61	11/6/15 19:00	1843.13	11/8/15 16:00	1843.03	11/10/15 13:00	1843.84
11/4/15 23:00	1844.55	11/6/15 20:00	1843.13	11/8/15 17:00	1843.03	11/10/15 14:00	1843.92
11/5/15 0:00	1844.48	11/6/15 21:00	1843.13	11/8/15 18:00	1843.03	11/10/15 15:00	1843.96
11/5/15 1:00	1844.43	11/6/15 22:00	1843.12	11/8/15 19:00	1843.03	11/10/15 16:00	1843.98
11/5/15 2:00	1844.37	11/6/15 23:00	1843.12	11/8/15 20:00	1843.02	11/10/15 17:00	1843.99
11/5/15 3:00	1844.32	11/7/15 0:00	1843.1	11/8/15 21:00	1843.02	11/10/15 18:00	1844.01
11/5/15 4:00	1844.27	11/7/15 1:00	1843.09	11/8/15 22:00	1843.01	11/10/15 19:00	1843.97
11/5/15 5:00	1844.21	11/7/15 2:00	1843.09	11/8/15 23:00	1843.01	11/10/15 20:00	1843.91
11/5/15 6:00	1844.16	11/7/15 3:00	1843.09	11/9/15 0:00	1843.01	11/10/15 21:00	1843.84
11/5/15 7:00	1844.09	11/7/15 4:00	1843.09	11/9/15 1:00	1843.01	11/10/15 22:00	1843.79
11/5/15 8:00	1844.02	11/7/15 5:00	1843.1	11/9/15 2:00	1843	11/10/15 23:00	1843.76
11/5/15 9:00	1843.98	11/7/15 6:00	1843.1	11/9/15 3:00	1843	11/11/15 0:00	1843.77
11/5/15 10:00	1843.95	11/7/15 7:00	1843.09	11/9/15 4:00	1843	11/11/15 1:00	1843.78
11/5/15 11:00	1843.92	11/7/15 8:00	1843.09	11/9/15 5:00	1843	11/11/15 2:00	1843.8
11/5/15 12:00	1843.9	11/7/15 9:00	1843.09	11/9/15 6:00	1843	11/11/15 3:00	1843.8
11/5/15 13:00	1843.87	11/7/15 10:00	1843.09	11/9/15 7:00	1843.01	11/11/15 4:00	1843.82
11/5/15 14:00	1843.85	11/7/15 11:00	1843.09	11/9/15 8:00	1843.02	11/11/15 5:00	1843.83
11/5/15 15:00	1843.82	11/7/15 12:00	1843.08	11/9/15 9:00	1843.03	11/11/15 6:00	1843.83
11/5/15 16:00	1843.8	11/7/15 13:00	1843.08	11/9/15 10:00	1843.05	11/11/15 7:00	1843.82
11/5/15 17:00	1843.77	11/7/15 14:00	1843.1	11/9/15 11:00	1843.06	11/11/15 8:00	1843.81
11/5/15 18:00	1843.74	11/7/15 15:00	1843.1	11/9/15 12:00	1843.07	11/11/15 9:00	1843.82
11/5/15 19:00	1843.71	11/7/15 16:00	1843.1	11/9/15 13:00	1843.08	11/11/15 10:00	1843.81
11/5/15 20:00	1843.69	11/7/15 17:00	1843.1	11/9/15 14:00	1843.09	11/11/15 11:00	1843.78

11/11/15 12:00	1843.75	11/13/15 9:00	1842.99	11/13/15 9:00	1842.99	11/15/15 6:00	1843.07
11/11/15 13:00	1843.74	11/13/15 10:00	1843	11/13/15 10:00	1843	11/15/15 7:00	1843.07
11/11/15 14:00	1843.71	11/13/15 11:00	1843.01	11/13/15 11:00	1843.01	11/15/15 8:00	1843.08
11/11/15 15:00	1843.66	11/13/15 12:00	1843.02	11/13/15 12:00	1843.02	11/15/15 9:00	1843.08
11/11/15 16:00	1843.62	11/13/15 13:00	1843.01	11/13/15 13:00	1843.01	11/15/15 10:00	1843.08
11/11/15 17:00	1843.62	11/13/15 14:00	1843.02	11/13/15 14:00	1843.02	11/15/15 11:00	1843.07
11/11/15 18:00	1843.63	11/13/15 15:00	1843.02	11/13/15 15:00	1843.02	11/15/15 12:00	1843.05
11/11/15 19:00	1843.63	11/13/15 16:00	1843.02	11/13/15 16:00	1843.02	11/15/15 13:00	1843.04
11/11/15 20:00	1843.65	11/13/15 17:00	1843.02	11/13/15 17:00	1843.02	11/15/15 14:00	1843.02
11/11/15 21:00	1843.65	11/13/15 18:00	1843.02	11/13/15 18:00	1843.02	11/15/15 15:00	1843.01
11/11/15 22:00	1843.64	11/13/15 19:00	1843.03	11/13/15 19:00	1843.03	11/15/15 16:00	1843.01
11/11/15 23:00	1843.62	11/13/15 20:00	1843.03	11/13/15 20:00	1843.03	11/15/15 17:00	1843
11/12/15 0:00	1843.62	11/13/15 21:00	1843.02	11/13/15 21:00	1843.02	11/15/15 18:00	1843
11/12/15 1:00	1843.62	11/13/15 22:00	1843.02	11/13/15 22:00	1843.02	11/15/15 19:00	1843
11/12/15 2:00	1843.6	11/13/15 23:00	1843.01	11/13/15 23:00	1843.01	11/15/15 20:00	1843
11/12/15 3:00	1843.56	11/14/15 0:00	1843.01	11/14/15 0:00	1843.01	11/15/15 21:00	1843
11/12/15 4:00	1843.53	11/14/15 1:00	1843	11/14/15 1:00	1843	11/15/15 22:00	1843
11/12/15 5:00	1843.53	11/14/15 2:00	1842.99	11/14/15 2:00	1842.99	11/15/15 23:00	1842.99
11/12/15 6:00	1843.53	11/14/15 3:00	1842.99	11/14/15 3:00	1842.99	11/16/15 0:00	1842.99
11/12/15 7:00	1843.51	11/14/15 4:00	1842.98	11/14/15 4:00	1842.98	11/16/15 1:00	1842.99
11/12/15 8:00	1843.47	11/14/15 5:00	1842.98	11/14/15 5:00	1842.98	11/16/15 2:00	1842.99
11/12/15 9:00	1843.43	11/14/15 6:00	1842.97	11/14/15 6:00	1842.97	11/16/15 3:00	1842.99
11/12/15 10:00	1843.37	11/14/15 7:00	1842.96	11/14/15 7:00	1842.96	11/16/15 4:00	1842.99
11/12/15 11:00	1843.33	11/14/15 8:00	1842.95	11/14/15 8:00	1842.95	11/16/15 5:00	1843
11/12/15 12:00	1843.34	11/14/15 9:00	1842.94	11/14/15 9:00	1842.94	11/16/15 6:00	1842.99
11/12/15 13:00	1843.3	11/14/15 10:00	1842.93	11/14/15 10:00	1842.93	11/16/15 7:00	1843
11/12/15 14:00	1843.25	11/14/15 11:00	1842.92	11/14/15 11:00	1842.92	11/16/15 8:00	1843
11/12/15 15:00	1843.2	11/14/15 12:00	1842.92	11/14/15 12:00	1842.92	11/16/15 9:00	1843.01
11/12/15 16:00	1843.13	11/14/15 13:00	1842.92	11/14/15 13:00	1842.92	11/16/15 10:00	1843.02
11/12/15 17:00	1843.09	11/14/15 14:00	1842.94	11/14/15 14:00	1842.94	11/16/15 11:00	1843.02
11/12/15 18:00	1843.07	11/14/15 15:00	1842.95	11/14/15 15:00	1842.95	11/16/15 12:00	1843.03
11/12/15 19:00	1843.04	11/14/15 16:00	1842.96	11/14/15 16:00	1842.96	11/16/15 13:00	1843.05
11/12/15 20:00	1843.01	11/14/15 17:00	1842.96	11/14/15 17:00	1842.96	11/16/15 14:00	1843.09
11/12/15 21:00	1843.01	11/14/15 18:00	1842.97	11/14/15 18:00	1842.97	11/16/15 15:00	1843.14
11/12/15 22:00	1843	11/14/15 19:00	1842.99	11/14/15 19:00	1842.99	11/16/15 16:00	1843.19
11/12/15 23:00	1842.99	11/14/15 20:00	1843	11/14/15 20:00	1843	11/16/15 17:00	1843.25
11/13/15 0:00	1842.98	11/14/15 21:00	1843.01	11/14/15 21:00	1843.01	11/16/15 18:00	1843.3
11/13/15 1:00	1842.97	11/14/15 22:00	1843.02	11/14/15 22:00	1843.02	11/16/15 19:00	1843.36
11/13/15 2:00	1842.97	11/14/15 23:00	1843.03	11/14/15 23:00	1843.03	11/16/15 20:00	1843.42
11/13/15 3:00	1842.97	11/15/15 0:00	1843.04	11/15/15 0:00	1843.04	11/16/15 21:00	1843.47
11/13/15 4:00	1842.97	11/15/15 1:00	1843.04	11/15/15 1:00	1843.04	11/16/15 22:00	1843.52
11/13/15 5:00	1842.98	11/15/15 2:00	1843.05	11/15/15 2:00	1843.05	11/16/15 23:00	1843.58
11/13/15 6:00	1842.98	11/15/15 3:00	1843.05	11/15/15 3:00	1843.05	11/17/15 0:00	1843.64
11/13/15 7:00	1842.98	11/15/15 4:00	1843.06	11/15/15 4:00	1843.06	11/17/15 1:00	1843.69
11/13/15 8:00	1842.98	11/15/15 5:00	1843.06	11/15/15 5:00	1843.06	11/17/15 2:00	1843.75

11/17/15 3:00	1843.81
11/17/15 4:00	1843.86
11/17/15 5:00	1843.91
11/17/15 6:00	1843.96
11/17/15 7:00	1844
11/17/15 8:00	1844.06
11/17/15 9:00	1844.12
11/17/15 10:00	1844.17
11/17/15 11:00	1844.22
11/17/15 12:00	1844.27
11/17/15 13:00	1844.31
11/17/15 14:00	1844.36
11/17/15 15:00	1844.4
11/17/15 16:00	1844.43
11/17/15 17:00	1844.47
11/17/15 18:00	1844.52
11/17/15 19:00	1844.57
11/17/15 20:00	1844.62
11/17/15 21:00	1844.66
11/17/15 22:00	1844.71
11/17/15 23:00	1844.75
11/18/15 0:00	1844.8
11/18/15 1:00	1844.83
11/18/15 2:00	1844.84
11/18/15 3:00	1844.87
11/18/15 4:00	1844.88
11/18/15 5:00	1844.89
11/18/15 6:00	1844.9
11/18/15 7:00	1844.91
11/18/15 8:00	1844.93
11/18/15 9:00	1844.95
11/18/15 10:00	1844.97
11/18/15 11:00	1844.99
11/18/15 12:00	1845
11/18/15 13:00	1845.01
11/18/15 14:00	1845.02
11/18/15 15:00	1845.02
11/18/15 16:00	1845
11/18/15 17:00	1844.98
11/18/15 18:00	1844.95
11/18/15 19:00	1844.93
11/18/15 20:00	1844.93
11/18/15 21:00	1844.95
11/18/15 22:00	1845
11/18/15 23:00	1845.04
11/19/15 0:00	1845.08



Mussels In Claytor Lake



There are five species found in Claytor Lake:	<u>Typical Size*</u>
• Giant Floater (<i>Pyganodon grandis</i>)	70 – 110 mm
• Pocketbook (<i>Lampsilis ovata</i>)	70 – 110 mm
• Pistolgrip (<i>Tritogonia verrucosa</i>)	70 – 100 mm
• Paper Pondshell (<i>Utterbackia imbecillis</i>)	40 – 70 mm
• Purple Wartyback (<i>Cyclonaias tuberculata</i>)	70 – 90 mm

The pistolgrip is currently listed as a state threatened species. If you find a suspected pistolgrip mussel, please take a digital photograph, call Brian Watson immediately at (434) 941-5990, and return the pistolgrip to the water. Photographs should be emailed to Brian Watson at Brian.Watson@dgif.virginia.gov. Please limit the number of photographs of each mussel to a maximum of two and limit the size of each photo to 1 MB.

* Smaller or larger individuals may still be found.

