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## 2012 Drawdown Report



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

May 7, 2013

## **2012 CLAYTOR LAKE DRAWDOWN REPORT**

### Background

In accordance with Appalachian Power Company's federal license to operate the Claytor Hydroelectric Project, Appalachian is required to submit a drawdown plan to the Federal Energy Regulatory Commission (FERC) three months prior to implementing a reservoir drawdown for non-emergency reasons (Article 405). The purpose of the plan is to minimize impacts to aquatic resources and to allow lake property owners time to prepare for shoreline maintenance activities.

In response to requests for a 2012 drawdown, and in consultation with local, state and federal agencies and organizations, Appalachian submitted a drawdown plan to FERC on August 6, 2012. This plan contained information on drawdown and mitigation efforts in 2011, details of the proposed 2012 drawdown, and a description of how 2012 drawdown information would be used for future drawdowns and mitigations. (See 2012 Drawdown Plan.)

The purpose of this writing is to provide a summary of the development, implementation, and results of the 2012 Drawdown Plan, and recommendations for future plans.

### Timeline

Following requests from Pulaski County and the Friends of Claytor Lake (FOCL), in spring of 2012 the Claytor Lake Technical Advisory Committee (CLTAC), made up of representatives from local, state and national agencies and organizations including Appalachian Power Company, began exploring options for a drawdown of Claytor Lake in fall of 2012. (See list of organizations represented in the CLTAC.) Appalachian, in consultation with the CLTAC, developed a 2012 drawdown plan that was reviewed by requisite agencies and organizations.

On August 6, 2012 Appalachian submitted its 2012 Drawdown Plan to FERC. The plan was approved by FERC, and Appalachian along with the CLTAC and individual agencies and organizations continued work on the details of implementing the plan. On September 21, 2012 Appalachian mailed letters to lake property owners, informing them of the drawdown scheduled for November 2012. (See September 21, 2012 letter.)

### Implementation

Modified Drawdown: As with the 2011 drawdown, aspects of the 2012 drawdown were modified from previous drawdowns to minimize impacts to aquatic resources. The 2012 drawdown, scheduled for earlier in November to reduce the risk of freezing temperatures, started on November 7 at one foot per day until the minimum reservoir elevation of 1843 feet NGVD was reached on November 10. This three foot drawdown represented a reduction in the usual depth of drawdowns prior to 2011. The duration of the drawdown was also shortened to nine days, with infilling beginning on the evening of November 18. Return to normal pond elevation was anticipated by November 21, but low inflows delayed infilling. The lake reached an elevation of 1844 feet on November 24, which was still one foot below the minimum license elevation for November, but which met the minimum elevation for peaking operations that began December 1. The lake reached an elevation of 1845 feet on December 19.

Education and Publicity: Included in the 2012 plan were requirements for publicizing the drawdown, and for providing increased public education about mussels, Asian clams and mussel salvage. Included in Appalachian's September 21 letter to lake property owners were photos and information about Claytor Lake mussels, directions for returning stranded mussels to the water,

and how to find further help and training with mussel salvage. Appalachian also issued news releases informing the public of drawdown.

FOCL provided information about drawdown and mussel identification and salvage on their website, Facebook page, through emails and in their newsletter. FOCL also initiated and assisted with newspaper and TV news coverage. The Virginia Department of Game and Inland Fisheries (VDGIF) was instrumental in providing photos and information on mussels, Asian clams and mussel salvage, and in conducting training sessions for event organizers, landowners and volunteers. Pulaski County also assisted with the development and dissemination of drawdown information, and both they and Claytor Lake State Park provided meeting locations for mussel salvage training and activities.

Mussel Salvage: A key component of the 2012 drawdown plan was an increase in mussel salvage efforts that included using volunteers, in addition to property owners, to provide a broader sweep of shorelines. Following FERC's approval of the plan, Appalachian, FOCL, VDGIF and Pulaski County worked to develop the details and logistics of an organized volunteer mussel salvage event. Saturday, November 10, the first full day of drawdown, was selected as the day for the event. Training in mussel identification and salvage was held on November 7 and 10. Appalachian and VDGIF provided training materials and VDGIF staff members conducted the training. Refreshments were provided by FOCL.



Eighty-three volunteers from local high schools and colleges, New River Master Naturalists, FOCL, National Committee for the New River, Appalachian, VDGIF, Claytor Lake State Park, and local landowners, residents and others participated in mussel salvage on November 10. Volunteers met at either Claytor Lake State Park or Harry DeHaven Park at 9 a.m. for training and then deployment in teams to salvage sites. Ten teams were led by VDGIF staff, landowners and FOCL members. Transportation to some of the sites was by six boats provided by VDGIF, Appalachian and landowners.



Shorelines covered during salvage were designated as twelve sites: 1) Dam Cove to Dublin Hollow; 2) Dublin and Roseberry Hollows; 3) Mallard Point and island between Dublin and Roseberry Hollows; 4) Claytor Lake State Park; 5) Twin Coves; 6) Byrd Lodge, Woods on the Lake, Furr Property and Baptist Camp; 7) Claytor Lake Estates; 8) DeHaven Park; 9) Lakeview and Shadowland; 10) Cecil's Chapel; 11) across from Max Creek; and 12) Blackberry Lane. During the salvage event, team leaders and volunteers walked along their respective sites, picking up, identifying, counting and tabulating by species dewatered mussels, and gently tossing them into deeper water. The weather on November 10 was especially warm and sunny with no wind, helping to make for a successful event.

Data Collection: To help provide information about the impact of drawdown on Claytor Lake mussels, and in particular the state threatened pistolgrip, the 2012 Drawdown Plan included the collection of data on the numbers and species of mussels salvaged during drawdown. A postcard



questionnaire, updated by FOCL from 2011's drawdown, was included by Appalachian in its September 21 letter to lake property owners. Landowners were asked to return the cards to FOCL with information on their respective lake locations and lengths of shoreline, uses of drawdown, and numbers of mussels found.

The 69 cards returned by March 1, 2013 reported using drawdown for debris clean up, and dock and shoreline stabilization and repair; 1,809 mussels were reported being salvaged. (See Notes on 2012 Drawdown, and 2012 Drawdown Mussel Cards Spreadsheet.) Mussel data was also collected during the volunteer mussel salvage event on November 10. The total number of mussels salvaged during the day was 5,486. An additional 1,500 mussels were salvaged by Claytor Lake State Park's volunteer mussel salvage activities on November 8 and 9. Another 180 mussels were salvaged by Pulaski County High School students prior to the end of drawdown. (See Mussel Salvage Tally by Team & Date.) The total number of mussels reported salvaged during drawdown, including four pistolgrips, was 8,975. (See Mussel Salvage Tally by Location and 2012 Mussel Salvage Map.)

### Recommendations

Review of the 2012 drawdown and associated activities yielded a number of comments and recommendations for future drawdowns and mussel salvage efforts. Some landowners stated a need for larger drawdowns (4, 5 or 8 feet) and drawdowns every year. The following were recommendations for future mussel salvage efforts:

Involve more property owners in mussel salvage along their shorelines, possibly combining with fall lake clean-up day (work through neighborhood representatives).

Determine sites for volunteer salvage event and publicize in advance to property owners.

Follow-up with randomized calls to landowners regarding drawdown activities and cards (provide response postcards closer to drawdown; code by lake location--lakefront, access, view).

Adjust salvage sites and teams according to concentrations of mussels and species (i.e., pistolgrip). Consider more sites up lake (reassign Blackberry Lane team up lake using FOCL flatbottom boat).

Prioritize sites in case of bad weather, limited volunteers.

Continue to coordinate salvage of Claytor Lake State Park shoreline with park staff.

Better organize and train teams ahead of event to facilitate deployment of volunteers (meet on day(s)/night(s)--e.g., Wednesday--before event to ID, train and coordinate team leaders, materials and sites; meet before volunteers on day of event).

Optimize volunteer deployment by identifying constraints (time, clothing, abilities) and assign to teams/sites accordingly.

Improve training for organizers, team leaders, neighborhood representatives, and volunteers (use of PowerPoint, photos of mussels in situ, more mussel shell examples for teams; data sheet instruction; GPS use and site location identification; toss paper pondshells into deeper water).

Communicate better with volunteers regarding what to expect and how to come prepared (boots/gloves/clothes to get cold, wet, muddy; child life preservers; minimum ages; snacks and drinks; hours of event); include photos of muddy 2012 volunteers as part of communication.

Provide gloves/boots/more food for volunteers?

Modify data sheets (wider rows, columns headed with species names, clearer indications of location information, average width of shoreline).

Have teams stay together at sites, with one person as data taker.

Add Eastern Eliptio and Eastern Floater to mussels found in Claytor Lake.



## **2012 CLAYTOR LAKE DRAWDOWN PLAN**

The Federal Energy Regulatory Commission (FERC) granted Appalachian Power Company a license to operate the Claytor Hydroelectric Project December 27, 2011. As part of the approved Water Management Plan, Appalachian Power Company may provide consideration of non-emergency 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 FOCL (Order Issuing New License, Dec 27, 2011, Article 405), following appropriate public input as determined by VDEQ. FERC approval is also required.

At least three months prior to implementing a non-emergency reservoir drawdown, Appalachian Power Company is required to file with FERC, for approval, a reservoir drawdown plan. The purpose of the drawdown plan is (1) to minimize the impact of any project maintenance activity requiring a reservoir drawdown to aquatic resources in the project reservoir and downstream of the project and (2) to allow shoreline property owners sufficient time to plan shoreline maintenance activities. The plan filed with FERC is to be prepared in Consultation with the FWS, VDEQ, VDGIF, VDCR, Pulaski County, new River Planning Commission, and FOCL.

### **The Drawdown Plan**

The for drawdown is a work in progress to develop a long-term mitigation plan that measures impacts on mussels as Appalachian adjusts what has been done in previous drawdowns to minimize impacts to mussels while still allowing for shoreline maintenance by property owners. Efforts began in 2011 through the Pulaski County's Claytor Lake Technical Advisory Committee (CLTAC) to modify the drawdown to decrease impacts to mussels. (See Appendix A for details on the CLTAC.) Below is a description of the efforts undertaken in 2011, details of the proposed drawdown for 2012, and a description of how information obtained during the 2012 drawdown will be used to inform future drawdown requests. Appendix A contains background information on mussels at Claytor and historic information on the drawdown.

### **PHASE 1 Modified Drawdown (Completed November 2011)**

1. Request from FOCL for a drawdown in early November. (Drawdown scheduled during early November to avoid freezing temperatures, but also to minimize the impact to recreation.)
2. Depth of drawdown was three feet from 1846 foot elevation. (Depth reduced from the previous depth of five feet.)
3. Duration of the drawdown was nine days, including two weekends. (Duration was reduced from the previous time of sixteen days, including three weekends.)
4. Lake level drawn down one foot per day to 1843 feet NGVD.
5. Appalachian Power Company through FOCL publicized information on the drawdown to their membership, other property owners and the public.
6. Information gathered on the number of people using the drawdown.

### **PHASE 1 (2011) Results**

1. The 100 plus respondents to the FOCL questionnaire represented 41,296 feet of shoreline. Thirty plus percent found no mussels. Approximately 40% found an estimated 6962+ mussels (some of these were described as tiny, which leads us to believe that they are the invasive Asian clam species). All responders were encouraged to place the discovered mussels in the water. One group that had

identification skills identified 1288 giant floaters, and 807 paperpond shells, and placed them into the water. The balance of responders did not comment on mussel placement in the water.

2. Lessons Learned:
  - 2.1. More education in mussel and Asian clam identification is needed.
  - 2.2. The next drawdown questionnaire needs to be refined to collect better data.
  - 2.3. The next drawdown should include a Claytor Lake Mussel Assessment done by qualified individuals on a qualitative basis to help assess future mitigation needs.

## **PHASE 2 (2012 and future drawdowns)**

1. Continue the 2011 Phase 1 modified drawdown requirements (i.e., schedule for early November, three foot depth from 1846' NGVD (elevation can fluctuate between 1842' and 1843'), duration of nine days, and lower elevation down one foot per day to 1843 feet.) In addition, future drawdowns will be proposed every other year instead of annually (i.e., the next drawdown would not be requested until 2014.)
2. The 2012 drawdown is schedule as follows:
  - 2.1. Begin lowering elevation one foot per day starting on Wednesday, November 7 at 8:00am
  - 2.2. Have elevation at 1843' by 8:00am on Saturday, November 10, 2012.
  - 2.3. Start allowing reservoir to refill on the evening of Sunday, November 18, 2012.
  - 2.4. Target reservoir to be back to normal elevation by the evening of Wednesday, November 21, 2012, prior to Thanksgiving holiday.
3. FOCL, Pulaski County and DGIF to provide additional public education on mussels and Asian clams through educational literature, newsletters, and meetings. Information to include directions on counting, returning, and reporting mussels stranded during drawdown to the water as well as how to report the number of mussels moved to deeper water.
4. Appalachian Power Company to work with FOCL and Pulaski County to publicize drawdown to all property owners along the shoreline at least 45 days prior to the drawdown.
5. FOCL to rework the drawdown questionnaire to better insure the collection of accurate data and provide a summary report to Appalachian.
6. Mitigation for 2012 will also include increased mussel salvage during the drawdown. Increasing mussel salvage and maintaining the modified drawdown will reduce the number of mussels killed due to the drawdown, as well as increase the likelihood of determining if the state threatened pistolgrip is being impacted by the modified drawdown. Volunteer efforts would be focused on broader sweeps for mussel salvage, which would help in determining if the state threatened pistolgrip is being impacted by the modified drawdown. if impacted, mitigation for pistolgrip must be considered for future drawdown requests which could include further modifications to the drawdown and/or direct conservation work. It is Appalachians's understanding that by developing an acceptable drawdown plan, including mitigation, that is approved by the agencies and agreed upon by Appalachian, then VDGIF will be able to consent to the drawdown as an active partner in the Claytor lake Technical Advisory Committee and in accordance with the Virginia Water Protection Permit and the existing FERC license. Refer to Appendix A for details on the CLTAC.
7. The 2012 assessment results gathered during the mussel sweeps will be used by VDGIF, along with pervious data collected during drawdowns, to help determine if additional mitigation is needed as par to future drawdown requests. if so, additional remediation measures will be proposed by the VGIF. Any needed funding will be identified. The mitigation plan may include specific mitigation for the threatened pistolgrip.

8. Regulatory agencies will approve any required mitigation plan and the CLTAC will then seek funding and coordinate implementing and further steps.
9. If the regulatory agencies approve the plan and required funding is identified, Appalachian will file the revised drawdown plan with FERC as part of future requests for drawdown approvals. Included with the filing will be documentation of consultation with stakeholders as required in the FERC license.
10. Future drawdown plans will be based on the previous year's results, and the drawdown plan will be revised as appropriate. The revised plan will include, at a minimum, the following:
  - 10.1. An evaluation of the steps taken to date to lessen the impact of the drawdown on mussels.
  - 10.2. A summary of data collected
  - 10.3. Any additional steps, modifications, and/or any mitigation efforts needed in order to continue future drawdowns.
11. The drawdown may be cancelled on short notice should it be determined that inflows are insufficient to refill the reservoir in a timely manner.
12. It is understood that if survey results indicate unacceptable impacts to mussels as determined in consultation with the various resource agencies or if an acceptable mitigation plan can not be developed, future drawdowns may not be requested.

**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

September 21, 2012

Re: 2012 Drawdown of Claytor Lake

Dear Resident:

In cooperation with Friends of Claytor Lake (FOCL) and Pulaski County, Appalachian Power Company has requested approval from the Federal Energy Regulatory Commission (Commission) for a temporary drawdown of the Claytor Reservoir during November 2012. The purpose of the drawdown is to provide property owners an opportunity to perform shoreline stabilization, cleanup and other maintenance related activities along the shoreline<sup>1</sup>.

The 2012 drawdown is scheduled to begin Wednesday, November 7, 2012 at 8 am. The reservoir will be lowered one (1) foot per day until it reaches 1843' (for a total of 3 feet) on Saturday morning, November 10, 2012. The reservoir will start refilling on the evening of Sunday, November 18, 2012 with a target date of being back to normal elevation by Wednesday evening, November 21<sup>st</sup>, prior to the Thanksgiving holiday. Water levels may fluctuate between three to four feet down from full pond (1846 feet) during the drawdown period.

In order to seek Commission approval for the drawdown, a drawdown plan<sup>2</sup>, which includes proposed mitigation for impacts to mussels, was developed in consultation with FOCL, Pulaski County and the various state agencies. [This is where you come in.](#) Mitigation for 2012 includes efforts to increase mussel salvage during the drawdown. This means we need your help in returning mussels to the water if they are stranded along your shoreline during the drawdown. If you see mussels, pick them up and gently toss them 5-10' into the water. Please complete the enclosed postcard to document these efforts and mail the completed card to FOCL.

Visit FOCL's website, [www.focl.org](http://www.focl.org), for additional information regarding mussel salvage efforts during the drawdown. If you would like help with mussel salvage, you can contact Laura Bullard at 540-392-3055 or [sunnyside@psknet.com](mailto:sunnyside@psknet.com). Information sessions about mussels will be held on Wednesday, November 7<sup>th</sup> at 6 pm at the Claytor Lake State Park and again on Saturday, November 10<sup>th</sup> at 9 am at Claytor Lake State Park and Harry DeHaven Park.

Please note that the drawdown may be cancelled on short notice if inflows are insufficient to refill the reservoir in a timely manner, if a flood event occurs or if the Commission does not approve the drawdown as requested. The public will be notified via a press release if the drawdown is cancelled.



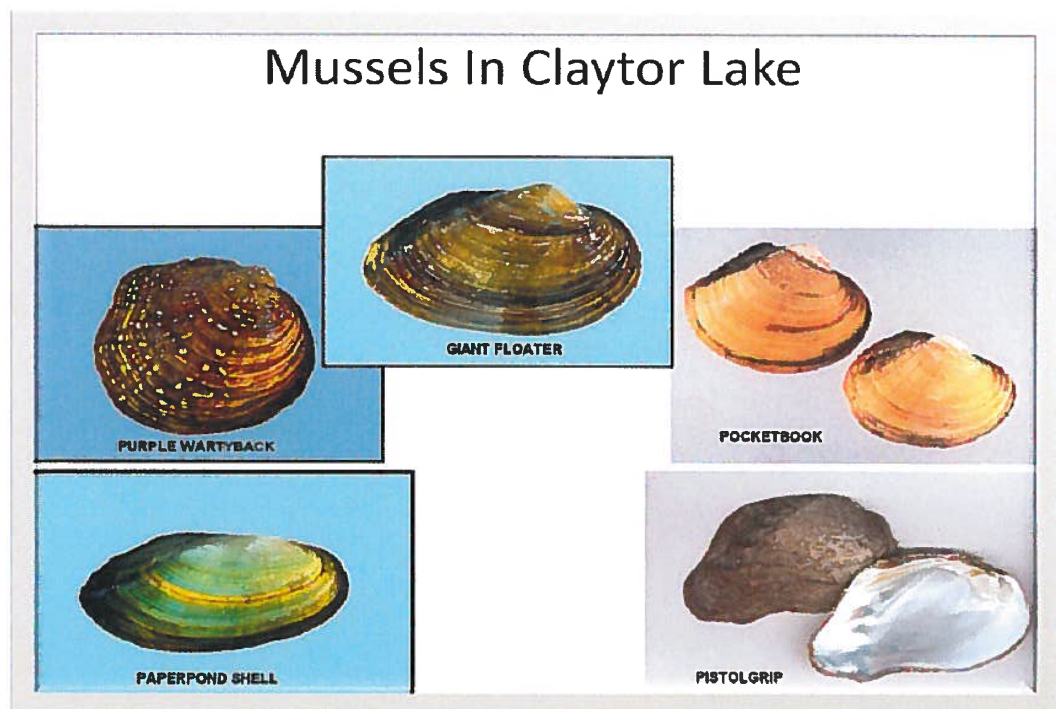
Sincerely,



Teresa Rogers  
Process Supervisor I

<sup>1</sup> A permit is required from Appalachian for new shoreline stabilization projects or dock expansions. Please contact Wayne Alexander at [wmalexander@aep.com](mailto:wmalexander@aep.com) or 540-985-2469 if you have questions. A Pulaski County permit is also required for dock expansions. A permit is needed from the Corps of Engineers (COE) for shoreline stabilization (NW13 for bank stabilization) or dredging (Regional Permit 40). Contact Pulaski County or COE if you have questions regarding their permit requirements.

<sup>2</sup> A copy of the drawdown plan can be found on [www.claytorhydro.com](http://www.claytorhydro.com).



There are five species found in Claytor Lake:	Typical Size*
• 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](mailto: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.

## 2012 Drawdown Results:

69 total responses from lakefront property holders affecting 19,598 feet of shoreline (3.7 miles)

42 individuals cleaned up shoreline of 7,303 feet

3 people reported new shore or dock work of 525+ feet

19 individuals reported shoreline repair for 2995+ feet

20 individuals made dock repairs for 427+ feet

Comments: 1 commented we need 8 foot drawdown, 1 comment need annual drawdown, 3 comment was not sufficient to clean dock area or work on seawall (1 of these said drawdown was 40" on wall and needed 75"), 1 commented need 4' instead of 3, I commented appreciate any drawdown but preference is for a deeper one. The exposed shoreline is so narrow and wet with a 3' drawdown it limits stabilization work. 2 commented a 5' drawdown would be much better, 1 thank you to AEP for drawdown, 1 comment FOCL and AEP continue Drawdown to control erosion.

## MUSSELS

58 individuals (84%of those reporting) checked for mussels: Of those 39 individuals picked up 1809+ mussels and returned them along 10,603+' of shoreline an additional 2427+' of shoreline was checked by 19 individuals that had no mussels. 11 of those surveyed did not fill in the mussel question. Three returning cards stated that mussel groups checked their shorelines.

Of these mussels found 6 individuals attempted identification and reported 68 paper pondshells and 115 giant floaters. No other types of mussels were identified.

## 2011 - 2012 Drawdown Comparison:

	2011	2012
Cards returned	107	69
Feet	41296+	19598+
Number cleaned up	78	42
Feet	7606+	7303+
New construction	4	3
Feet	860	525
Shoreline Repair	54	19
Feet	6068+	2995+
Dock Repair	52	19

<b>Mussels</b>	6962+	1809
number who checked	77	58
Feet checked	38447+	13030+
Number mussels	6962+	1809+

### 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: \_\_\_\_\_

2102 Mussel Salvage and Shoreline Maintenance Cards													
Location	Shoreline		Dock		Shoreline Repair		Clean Up		Other		Mussels		Comments
	Total Feet	New access/Shore stab	feet	dock maint	Repair	Seawall Repair	feet	Clean up	feet	Other	mussel type	feet	
4831 Treehouse Rd., Radford, VA	100	100											
2955 Blackberry Lane, Hiwassee, VA	200	200			seawall repair		wood debris	200 Friends of AEP and FOCL to control eros			0	0	
4156 Little Wytheville Rd, Draper, VA 24324	160	160			minor repairs		sticks and debris	100 no mussels on land only in water			0	0	
4800 Cedar Point Lane	50	50			rock		trash and woody debris	50			0	7	
6521 Cecils Chapel Road, Hiwassee, VA 24347	900	850					wood stumps	30			0	20	
4469 Plantation Estates, Radford, VA 24141	150	30					glass wood stumps	45			0	30	
1535 Owens Road Radford VA 24141	50	50					several logs	50			0	45	
6817 Beach Drive, Radford, VA 24141	75	75					trash and wood	50			0	50	
4509 Graham Morris Lane, Pulaski, VA 24301	100	100			riprap		small bag trash	100 added mounting hardware to base jet sk			0	75	
4638 Lakeland Road, Dublin, VA 24084	100	100			repair bolts		logs and sticks	100 looked like mussel team had done ours			0	100	
Peak Way, Newburn VA	100	100			dock maintenance		logs and limbs	100			0	100	
2136 Westover Ave, Roanoke, VA 24015	0	0						0	Need 8' drawdown		0	100	would like to see larger drawdown
Clemet Lane	110	110									0	110	
1793 Julia Simplins Road	140	140			20 replace rocks		debris and trash	270			0	140	
4302 Little Wytheville Rd, Draper, VA 24324	270	300					1/2 kitchen trash bag bottles pipe styrofoam				0	300	This is really important every year. Wish
5006 Evergreen Drive, Pulaski, VA 24301	400	400									0	400	
4735 4747 & 4733 Our Place Lane	3400	3400									0	850	all asian clams
4437 Plantation Estates Rd, Radford VA 24141	80	80			30 shoreline stabilization						0	80	
4756 Lakeland Rd, Dublin VA 24084	320	320			10		logs, wood	80			1	320	
5809 Feer D-- Farm Road	425	425					glass and wood	320			1	425	measured 40" down still in water need 7
6725 Tall Oaks Lane, Dublin	500	500			water too high		clean leaves	60			2	500	
7011 Owens Road, Radford, VA 24141	100	100			placed rock back against wall		bottles and trash	100		wood debris	3	100	
4965 Weaver Rd, Dublin, VA 24084	105	105			inspect bulkhead		beer cans	105			4	100	
4825 Cedar Point Lane	99	99					general trash	99			6	105	
4624 Lakeland Road	150	150					woody debris	99			6	100	
4335 Plantation Estates Road	55	45			8		shoreline clean up	120			9	150	
4984-covey Campground Road, Dublin VA 24141	100	100			put stone back in place			80			10	10	
2900 Miller Owens Road	700	700									10	700	80% confident these were paper pondsh
4001 Shadowland, Dublin, VA 24141	75	75			2 pilings		shoreline clean up	75			12	90	
6801 Dunkard Road	90	90			fixed						12	149	
6632 Cecils Chapel Rd, Hiwassee, VA 24347	149	149			existing rock repair		10 glass metal	149			19	400	
6596 Cecils Chapel Road, Hiwassee, VA 24347400	400	400			rip rap		400				20	8	
6864 Holly Drive	50	400			20 general maintenance		50 logs trash	150			24	100	I think they were mussels
6728 Circle Drive, Radford, VA 24141	180	180					glass bottles cans etc	180			24	180	
5768 Holly Drive	500	500					5 bags trash	300			24	100	
4791 Merry Point Road, Radford VA 24141	150	150			0 replace walk supports		wood trash	150			26	150	
6232 Allison Drive, Hiwassee, VA 24347	250	250					0 wood	250			38	250	
4660 Waterfront Farm Drive, Draper, VA 24383	100	100			rip rap		1000 clean up wood and leaves	100			38	1450	Douglas to Bantolin property
6529 Cecils Chapel road, Hiwassee, VA	100	100					debris	100			45	50	
6167 Claytor Point Drive	275	50									45	50	
6853 Beach Drive,	50	50			Shoreline block		Dock maintenance & repai	50			50	40	
6957 Bee-----	217	217			40 stone repair		25 brush and logs	40			50	150	Ray Willis POBox 354 Tazewell VA 24651
4380 Little Wytheville Road, Draper, VA	150	150					150 trash and trees	150			60	100	
3008 Hawkinst Ln Draper, VA	153	100			50			200			75	200	
6879 Beach Drive, Radford, VA 24141	200	200			rip rap		75 2 bags glass trash sunken orgar	500			109	250	need drawdown every year
6744 Circle Drive, Radford, VA 24141	250	250			rip rap		remove rubbish	400			109	400	109 58 giant fl. 51 paper pond
5051 Claytor Dam Rd, Dublin VA 24084	400	400			reinforce pillars		150 trash and wood	150			110	3400	
6220 Allison Drive Hiwassee, VA 24347	150	150			replaced boards			100			200	50	Drawdown not sufficient to clean dock
6734 Circle Drive, Radford, VA 24141	200	200					driftwood	100			300	800	lot less large mussels than
6287 Old Ferry Road, Hiwassee, VA 24347	100	100					logs and branches	100			358	312	Giant floaters 46 pocketbook
3688 conrad Landing Road Pulaski Va 24301	120	120			40			100 large amount of trash and plastic			0	120	found only broken shells
2524 Saddle Ridge Circle	120	120									0	120	Not at lake for drawdown
Graham Morris	0	0									0	0	out of area at time
Lyons Road and Redwood Drive	3000	3000									0	0	done by volunteers
2892 Blackberry Lane, Hiwassee, VA 24347	240	240									0	0	
6941 Owens Road	334	0									0	0	
Lot 69 Plantation Estates	106.5	106.5			minor seawall repair						0	0	didn't get there till Nov 11 those that we
Raspberry Lane or Laurel Lane	94	94			check stationary pillars and floating dock repair stairs						0	0	mussel study group did shore
6718 Dunkard Road	1200	1200			shored up rip rap		1200 woody debris and trash	1200			0	0	
The Lane	900	900			moving rock		900 woody debris and trash	900			0	0	mussel group did shore
6740 Circle Drive, Radford VA 24141	100	100									0	0	
4587 Mallard Point Way #20 Dublin, VA 24141	115	30			bulkhead repair						0	0	
4900 Tie Lane, Dublin, VA 24084	19598	19021									0	0	
Little Wytheville Road	19598	19021									0	0	
4527 Plantation Estates lot 40	525	525									0	0	
	247	247									0	0	
	2995	2995									0	0	
	7903	7903									0	0	
	1809	1809									0	0	
	13030	13030									0	0	
	25384	25384									0	0	



**MUSSEL SALVAGE TALLY BY TEAM and DATE**  
**November 2012 Drawdown**

<b>Site #</b>	<b>Giant Floater</b>	<b>Paper Pondshell</b>	<b>Pocket-book</b>	<b>Pistol-grip</b>	<b>Eastern Eliptio</b>	<b>Eastern Floater</b>	<b>TOTAL</b>	
	<b>11/10/2012 Volunteer Event</b>							
1A,B	<b>Team Kittrell/Graybeal/Bullard - Dam Cove to Dublin Hollow</b>							
	999	342					1,341	
2A,B,C	<b>Team Walters - Dublin &amp; Roseberry Hollows</b>							
	157	67					224	
3A,B	<b>Team Watson/Rogers/McLaughlin/Mathews - Mallard Pt &amp; island btw Roseberry &amp; Dublin Hollows</b>							
	530	208			17	5	760	
4A,B,C	<b>Team Strenz - Byrd Lodge, Woods on the Lake &amp; Furrs, Baptist Camp</b>							
	264	234					498	
5	<b>Team Beamer - Claytor Lake Estates</b>							
	126	20					146	
6	<b>Team Hoffman - DeHaven Park</b>							
	708	358					1,066	
7A,B	<b>Team Stevenson -Lakeview &amp; Shadowland</b>							
	339	256					595	
8	<b>Team Bandolin - Cecil's Chapel</b>							
	139	121					260	
9A,B	<b>Team Pinder - Across from Max Creek</b>							
	88	178		4			270	
10	<b>Team Kelly - Blackberry Lane</b>							
	1	6					7	
12	<b>Team Doss - CL State Park (Marina to cabins)</b>							
	150	100	8				258	
11	<b>Team ChicNberry - Twin Coves Rd</b>							
		60	1				<u>61</u>	
	<b>Total for 11-10-12 Volunteer Salvage Event</b>							<b>5,486</b>
	<b>Additional Salvage</b>							
12	<b>Claytor Lake State Park - Matt Wright/RU Wildlife Society - Nov 8 &amp; 9</b>							
	1,000	500					1,500	
	<b>Team Hoffman (PCHS students) -Nov 17</b>							
6	DeHaven	107	29					
13	Lighthouse Bridge (beside ShopEz)	30	0	14			180	
	<b>Totals by Identified Species</b>							
	<u>G. Floater</u>	<u>P. Pondshell</u>	<u>Pocketbk</u>	<u>Pistolgrip</u>	<u>E. Eliptio</u>	<u>E. Floater</u>		
	4638	2479	23	4	17	5		
	<b>Landowners During Drawdown as reported on postcards</b>							<b><u>1,809</u></b>
	<b>Total for all Mussel Salvage</b>							<b>8,975</b>

**MUSSEL SALVAGE TALLY BY LOCATION**  
November 2012 Drawdown

Site #		Giant Floater	Paper Pondshell	Pocket-book	Pistol-grip	Eastern Eliptio	Eastern Floater	Part Total	Grand TOTAL
	<b>Dam Cove to Dublin Hollow</b>								
1A		755	274					1,029	
1B		244	68					<u>312</u>	
									1,341
	<b>Dublin &amp; Roseberry Hollows</b>								
2A	Dublin	58	20					78	
2B	Dublin	2	1					3	
2C	Roseberry	97	46					<u>143</u>	
									224
	<b>Mallard Pt &amp; island between Dublin &amp; Roseberry Hollows</b>								
3A	island	425	125			10	1	561	
3B	Mallard Pt	105	83			7	4	<u>199</u>	
									760
	<b>Byrd Lodge, Woods on the Lake &amp; Furrs, Baptist Camp</b>								
4A	Byrd Lodge	8	26					34	
4B	WOTL/Furrs	148	69					217	
4C	Baptist Camp	108	139					<u>247</u>	
									498
5	<b>Claytor Lake Estates</b>								
		126	20						146
6	<b>DeHaven Park</b>								
		815	387						1,202
	<b>Lakeview &amp; Shadowland</b>								
7A	Lakeview	255	211					466	
7B	Shadowland	84	45					<u>129</u>	
									595
8	<b>Cecil's Chapel</b>								
		139	121						260
	<b>Across from Max Creek</b>								
9A	Spraker/Fintel	77	176		4			257	
9B	cove	11	2					<u>13</u>	
									270
10	<b>Blackberry Lane</b>								
		1	6						7
11	<b>Twin Coves Rd</b>								
			60	1					61
12	<b>Claytor Lake State Park</b>								
		1,150	600	8					1,758
13	<b>Lighthouse Bridge</b>								
		30	0	14					44
	<b>Total salvaged by volunteers</b>								<u>7,166</u>
	Totals by Identified Species								
		G. Floater	P. Pondshell	Pocketbk	Pistolgrip	E. Eliptio	E. Floater		
		4638	2479	23	4	17	5		
	<b>Totals reported salvaged by landowners</b>								<u>1,809</u>
	<b>Total for all mussel salvage</b>								<u>8,975</u>

