



Fisheries bulletin

KENTUCKY DEPARTMENT *of* FISH *and* WILDLIFE RESOURCES

A SURVEY OF PEABODY WILDLIFE MANAGEMENT AREA
ANGLER OPINIONS, ATTITUDES, AND USES

BY:
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A Survey of Peabody Wildlife Management Area Angler Opinions, Attitudes, and Uses

By

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Abstract

Peabody Wildlife Management Area (PWMA) encompasses 45,732 acres of reclaimed coal strip-mine land in western Kentucky. An annual user permit is required to access the area which is open to hunting, fishing, and general outdoor recreational activities. Fishery resources include 293 bodies of water ranging in size from 0.3 to 183 acres. Fishery related improvements have been restricted due to budget constraints and limited knowledge of angler preferences. In 2012, 7,479 persons purchased a PWMA user permit in addition to a fishing license. A sample of 1,800 of these individuals were surveyed to determine angler attitudes regarding the fishery resources and user needs on the WMA. A multiple contact methodology was used to maximize responses. A total of 797 usable questionnaires were received for an adjusted return rate of 48%. Sixty percent of the respondents indicated fishing was the primary reason they purchased a Peabody user permit in 2012. Anglers averaged 25.6 days fishing on Peabody WMA in 2012 (range = 1- 200 days) with 57.8% of the anglers indicating they have fished Peabody WMA for more than ten years. Respondents indicated they had fished in 141 of the 293 lakes on the WMA. Largemouth bass was the most sought after species (90.2% of anglers), followed by bluegill/redear sunfish (78.7%), crappie spp. (65.8%), and catfish spp. (38.2%). Of the anglers surveyed, 40.5% fished from a boat 100% of the time, while 27.1% fished from the bank greater than 50% of the time. The three primary angler concerns were insufficient boat (37.0%) and bank (36.9%) access, and too much vegetation in lakes (32.0%). Part of the information obtained was expected, while anglers revealed other issues that had not been previously considered. Results of this survey will help guide future fishery resource enhancements.

Introduction

Peabody Wildlife Management Area (PWMA) encompasses 45,732 acres of reclaimed coal strip-mine land in Hopkins, Muhlenberg, and Ohio counties in Kentucky. There are 293 bodies of water on the WMA ranging in size from 0.3 to 183 acres. There are 77 boat ramps and 35 improved bank fishing areas located on the WMA. While those numbers may seem grand, relative to the development opportunities and angler requests, fishery related enhancements have been limited. This is due to both budget constraints and lack of knowledge of angler preferences.

Peabody WMA is a unique resource with an equally unique constituent base. Area users travel from across Kentucky and out of state to recreate. Figure 1 displays the frequency of PWMA user permit sales by county in Kentucky. Users hail from large cities and rural towns and travel from less than one mile to 350+ miles to recreate on Peabody WMA. During the 1993-1994 license year, Kentucky Department of Fish and Wildlife Resources (KDFWR) purchased and/or signed long term lease agreements on approximately 70,000 acres of reclaimed Peabody Coal Company ground to form the WMA. KDFWR then began to require an annual user permit to hunt, fish, or enjoy other outdoor recreational opportunities. This permit originally cost \$10 and is \$15 at present. From 1996 through 2012 Kentucky Direct Sales System records show permit sales have ranged from 8,439 to 15,771. Permit sales have declined annually since the 2004-2005 license year.

Wildlife Division personnel conducted a survey of Peabody WMA users in 2000 (Henshaw and Morton 2000). A mail survey was sent to 1500 recipients with an additional 1100 sent in a follow up mailing. This survey focused mainly on the economic impact associated with recreational use of the WMA. Survey results estimated that fishing on PWMA had a total economic impact of \$2,437,933 in Muhlenberg and Ohio counties alone, and a total economic impact of \$3,382,776 for the state of Kentucky. This 2000 survey showed the importance of Peabody WMA to both the local and state economies. These figures can only be expected to have increased in the twelve years since the Wildlife Division survey. In the 2012 license year, 9,412 PWMA permits were purchased.

Stocking of fish on the area is very limited due to the large number of potential stocking locations and availability of hatchery resources. Channel catfish are currently stocked in six lakes. Excess hatchery produced blue catfish were stocked in Ken Lake in 1996. Four lakes were stocked with fingerling redear sunfish in 2012 in hopes of creating trophy sunfish fisheries. A stunted largemouth bass population was already present in those four lakes and bluegill numbers were moderate, with most all fish captured during sampling being large. Access is limited to foot traffic in the vicinity of the lakes making for a unique opportunity to create a trophy fishery with little resource expenditure. Trout have been stocked in two lakes in Ohio County during the winter for two seasons with good angler response. An additional lake in Muhlenberg County was added to the trout stocking list January 2014. Musky are stocked in Goose Lake and Musky Lake every other year as fish are available.

Additional stockings came in 2012 as the Kingfisher Lakes were being drained for renovation. Collectively, several thousand bluegill, redear sunfish, gizzard shad, largemouth bass, and crappie spp. were removed and transported to Ken Lake in Ohio County. Ken lake was chosen to receive these fish

because the blue catfish stocked in 1996 had consumed nearly all fish less than 15 inches in the lake and most had stunted at approximately 16 inches. We used this stocking opportunity to rebuild the forage base and hopefully improve catfish growth.

Initial stocking of most lakes was handled via the KDFWR Farm Pond Stocking Program (largemouth bass, bluegill, and channel catfish) at the completion of reclamation. Other fish species have been introduced to PWMA lakes by anglers and flood events.

The Fisheries Division periodically surveys various constituent groups to acquire information relating to angler attitudes, opinions, successes, and failures. This information is then used to direct future management decisions and resource expenditures. To date, there has not been a survey conducted that specifically targeted Peabody Wildlife Management Area angler opinions and preferences. Given the significant economic stimulus provided by PWMA, and the number of angling opportunities present, we generated a survey to gather information that will guide future management of fishery resources on PWMA.

Methods

The PWMA angler survey (Appendix A) was designed to gather information on angler uses, preferences, and opinions regarding current fishery resources. A draft was prepared based upon the information we deemed most beneficial to future management. The draft was reviewed by KDFWR staff and appropriate revisions made.

The survey sample was randomly selected from the total population of 2012 PWMA user permit holders who also purchased any type of annual fishing license (fishing, joint fishing, combination fishing and hunting, sportsman's, or senior/disabled licenses). With an eligible population of 7,479, a minimum of 365 responses was needed for statistical significance at the 95% confidence level. Estimates on the number of bad addresses and return rates from prior surveys of Kentucky anglers were used to ensure an adequate beginning sample size was selected (Dreves 2005, 2008). Based on prior experiences and current literature, it was estimated that 1,800 potential respondents would need to be contacted. A random number was assigned to each possible respondent from the KDFWR license database. The list was then sorted in ascending order by the random number field and the first 1,800 records were selected as the survey mailing list.

A multiple contact methodology was utilized to maximize the number of responses. Each person on the mailing list was first sent a notification letter by first class mail informing them of the impending survey (Figure 2). All undelivered mail returned was marked as "bad address" in the database and no further mailings were sent to that recipient. Twelve days after mailing the notification letter, each recipient was sent a packet that included a personalized cover letter (Figure 3), a survey questionnaire (Appendix A), and a postage paid return envelope. Each survey questionnaire had a unique identification number printed on the last page that allowed us to check off each returned survey from the mailing list as it was received. Approximately two weeks following the first mailing of the survey, each person was sent a

reminder/thank you postcard (Figure 4). After an additional three weeks, any person from the original mailing list who had not returned a survey or been checked off as a bad address was mailed another packet. This last mailing contained a different personalized cover letter (Figure 5), another survey questionnaire, and another postage paid return envelope.

Data from each returned survey questionnaire was entered by staff at the Northwestern Fisheries District office. Survey data from 14 of 16 questions was analyzed using SAS statistical software. Question 5 asked each respondent to circle and number one through five, the five lakes on PWMA that they fish most frequently (with one being most frequent). This data was tallied for each lake and sorted in descending order. Question 15 was open ended and responses were tallied and sorted similarly to Question 5.

Results and Discussion

The results discussed are not an exhaustive analysis of the survey. The data reported is deemed to be important for future management of PWMA fishery resources. Additional analyses that could be explored within the data collected and may be if/when the opportunity presents itself. The example survey found in Appendix A also provides the percentage of responses for each answer.

A total of 1,800 pre-survey letters were mailed on April 26, 2013. After removing bad addresses from the list, 1,653 survey packets were mailed on May 8, 2013. The follow-up mailing of surveys was sent out on June 13, 2013. A total of 797 usable completed questionnaires were returned. This resulted in an effective response rate of 48% after accounting for bad addresses and returned incomplete surveys.

Our response rate is below the 52% and 64% response rate recorded for the 2003 Statewide Angler Attitude and Trout Angler surveys, respectively (Dreves 2005, 2008). The 2013 Statewide Catfish Angler Attitude survey also boasted a 53% response rate (Herrala 2013). While our 48% response rate was lower than the previously mentioned, it was much greater than the 20% response rate obtained in the Kentucky Fisherman Attitude survey of 1982 (Kinman and Hoyt 1984). This drastic difference is most likely due to the multiple contact method employed in each survey post 2003. The 2000 Wildlife Division survey of Peabody WMA permit holders garnered an approximate 35.6% response rate using only two recipient contacts (Henshaw and Morton 2000). Our response rate is presumably higher due to the two extra contacts and limiting our original pool of recipients to those holding both a PWMA permit and a fishing license.

Seventy-six percent (N = 608) of the completed questionnaires came from the first mailing and 24% from the second (Figure 6). These figures are slightly misleading in that some surveys from the first mailing were returned after the second mailing. It appears that the second survey mailing acted as another reminder to the recipient who subsequently completed and returned the original survey. The date completed surveys were received was recorded in the database to allow an examination of return patterns. Previously conducted KDFWR surveys confirmed the necessity of the multiple contact method and this survey was no exception. After each contact we experienced a spike in completed survey

returns, especially after the second survey packet was mailed. In the cover letter, included in the second survey packet, we encouraged recipients to return surveys even if they did not fish on PWMA in 2012. While this was implied on the survey, nothing was mentioned in the first cover letter.

Survey respondent age ranged from 14 to 85 with 65% of respondents being 45 and older. The average age of angler respondents was 50 years old and the majority of respondents were male (86.7%). Survey respondents hailed from 59 different counties in Kentucky, one Indiana county, and one county in Tennessee. Respondents who fished PWMA in 2012 represented 40 Kentucky counties and one each from Indiana and Tennessee. Half of the Peabody anglers in 2012 (50.8%) resided in one of the three counties containing WMA property (Hopkins, Muhlenberg, and Ohio). Refer to Figure 7 for a representation of survey respondents by home county. Appendix B provides a complete list of counties with number of survey respondents.

Sixty percent of respondents indicated fishing was the primary reason they purchased a PWMA user permit in 2012. Additional reasons included hunting, hunting and fishing equally, and a host of others ranging from picking mushrooms and horseback riding to supporting family members while they recreated.

Surveyed anglers averaged 25.6 days fishing on PWMA in 2012 (range = 1- 200 days). Forty-four percent of anglers who fished PWMA in 2012 fished between one and ten days and 20 (2.6%) anglers fished on the WMA more than 100 days. Survey respondents spent an average of 51% of their total fishing time in Kentucky in 2012 fishing PWMA. The majority (57.9%) of responding anglers have been fishing PWMA for more than ten years (57.9%). The minority were divided between 1-3 years (16.6%), 4-6 years (13.5%), 7-10 years (7.8%), and less than one year (4.2%).

In hopes of focusing our improvement resources efficiently we provided survey recipients with WMA maps and asked them to specify and label the five lakes they fished most often, with one being most frequent and five being the least frequent. A great deal of interpretation was required due to the inability of respondents to follow survey instructions. Respondents indicated they had fished in 141 of the 293 lakes on the WMA. The most popular lakes (determined by the total number of inclusions in the 1-5 ranking) were larger lakes on the area with existing boat ramps. The top ten lakes were (in order of total inclusions); Island, South, Ken, Goose, Musky, Jack's, Rob's, Bell, Adkins Swamp, and Tom's lakes. Eight of the top ten lakes are in Ohio county with the two remaining in Muhlenberg county. Most fishery improvements to date have taken place at lakes ranked in the top six. This either indicates that our efforts coincided with angler preferences or that angler preference was influenced by recent fishery improvements. We believe the former to be true because most improvements have been completed in the last four years and 79% of our anglers have been fishing PWMA for 4+ years. For a full list of lakes selected by anglers and their frequency of inclusion refer to Appendix B.

Question 6 asked respondents which species of fish they prefer to fish for most at PWMA. They were asked to indicate their top three species and rank them accordingly (1 = most preferred, 2 = second most preferred, 3 = third most preferred). Largemouth bass was sought after by 90.2% of anglers (N = 432), followed by bluegill/redear sunfish (78.7%, N = 374), crappie spp. (65.8%, N = 315), and catfish (38.2%, N = 183). The remaining respondents indicated they fished for trout (6.9%, N = 33), musky (1.3%, N = 6), and other species (1.8%, N = 9). Responses to "other" included "warmouth", "stripes", and "rough fish." Largemouth bass was ranked as the most preferred specie by 62.0% of respondents.

Question 7 asked respondents to rate their fishing success for each of the species they indicated in Question 6. Largemouth bass fishing success was considered "Fair" by 47.1% of anglers, while 42.7% considered it "Good" or "Very Good". Only 10.2% of largemouth bass anglers rated their success "Poor" or "Very Poor".

Conversely, 64.2% of bluegill/redear sunfish anglers rated their fishing success as "Good" (42.1%) or "Very Good" (22.1%). An additional 28.2% felt their bluegill/redear sunfish fishing success was "Fair" with the remainder split between "Poor" (6.4%) and "Very Poor" (1.1%).

Crappie anglers were much less satisfied with the current fishery. Most anglers considered their success "Fair" (42.6%), with the remainder divided between "Poor/Very Poor" (29.8%) and "Good/Very Good" (27.6%). Crappie have not been stocked by KDFWR on PWMA nor are they currently managed. Crappie have been introduced to WMA lakes by anglers who brought fish from the river or other lakes as they saw fit. Given the large number of anglers who target crappie and the existence of crappie fisheries in many lakes, NWFD may attempt to supplement some of these fisheries if/when fish become available.

Catfish angling success mirrored that for crappie with "Fair" accounting for 42.3% of responses followed by "Poor/Very Poor" (31.1%) and "Good/Very Good" (26.6%). As stated above, catfish are stocked on PWMA every other year. It is unclear why angler success and satisfaction is not higher. We will reevaluate current stocking locations and advertisement strategies in order to increase angler success.

Musky and Trout were one of the top three species sought after by a very small percentage of anglers (1.3% and 6.9%, respectively). A trout fishing creel survey may be implemented in the future to evaluate the opinions and success of these anglers.

Question 8 asked anglers the length (in inches) of each fish species they considered "keeper" size and would take home and the length of fish that they considered "trophy" size. Some anglers misread the question or simply ignored the request for length in inches and provided responses in pounds, ounces, or some other qualifier.

Responses for keeper size largemouth bass ranged from six to 24 inches and one to ten pounds. Several anglers countered that no bass was a keeper regardless of size. Trophy bass responses ranged from 12 to 36 inches and four to 15 pounds. It is interesting to note that 29.7% of anglers did not consider a largemouth bass to be trophy size until it was 24 inches or greater. Northwest Fishery District staff cannot recall ever collecting a 24+ inch largemouth bass anywhere in the district.

Forty-two percent of bluegill/redear sunfish anglers considered six to eight inch fish keepers, while another 37% required fish to be eight inches or greater before they would consider harvesting that fish. Keeper size responses ranged from “Any” to 12 inches and two to three pounds. Trophy size responses were much larger with most in the 10 to 15 inch range.

The vast majority (80%) of respondents felt that catfish between 11 and 16 inches were large enough to harvest. Other responses ranged from six to 26 inches and one to five pounds. About one quarter of responses placed trophy status on fish 20-30 inches, while another quarter considered fish in the 30-40 inch range trophies. The remaining responses were scattered from 12 to 60 inches and four to 100 pounds.

Crappie anglers are notoriously unpredictable when it comes to size limit preferences. High profile fisheries with good growth rates and many large fish in the population tend to garner support for higher size limits. Conversely, smaller, rural fisheries are more likely to support a constituent base in favor of liberal harvest. Peabody WMA crappie anglers display some of both tendencies. Seventy percent of respondents felt crappie needed to be nine inches or larger to be harvestable. The remaining 30% felt fish less than nine inches were harvestable. We expected to see a higher percentage of responses in this category because of low growth rates and small population sizes associated with Peabody strip mine lakes. Trophy crappie designations ranged from eight to 24 inches and one to six pounds. Six respondents felt crappie must be four pounds or larger to be considered a trophy. The Kentucky state record for crappie is four pounds fourteen ounces.

Only a small portion of respondents listed a keeper size for musky (N = 54), and 49.1% of these individuals provided a length less than the state wide minimum size limit. This is likely due to the small proportion of musky anglers and musky fishing opportunities on PWMA. Trophy musky lengths ranged from twelve to 60 inches. Currently, only two lakes are stocked with musky on an alternate year schedule, when fish are available. Regulation signs have been posted at these lakes to inform anglers of the minimum size limit for musky.

There were a few more responses for trout keeper and trophy lengths (N = 95, 84). Just over one half of respondents felt trout needed to be at least 12 inches to harvest. Additionally, 65% of respondents considered trophy trout to be 17 inches or greater. Responses ranged from “any” to 24 inches for keeper size and “any” to 36 inches or five to 10 pounds for trophy fish. At the time of this survey, two lakes on the Ohio county portion of the WMA were stocked with trout at least twice during the year. Fish are typically nine to ten inches in length at time of stocking. Angler use and harvest appear to be high despite the small size of stocked fish. The previous comment is based on interviews and remote camera observations.

Several other species were targeted by respondents, most being “rough” fish species sought by bow fishermen. There were few keeper and trophy length responses for these additional species.

Question 9 asked survey recipients to indicate what percentage of time they fished from a boat and/or from the bank. Forty percent of respondents fish from a boat 100% of the time. Expectedly, only 9.1% of respondents fished solely from the bank. Bank fishing access is severely limited on PWMA due to

irregular topography, and thick vegetation; however 31 new bank fishing access sites have been added in the past two years. Interestingly, 27.1% of respondents indicated that they fished from the bank greater than 50% of the time. The bank access limitations are well known and improvements continue to be made wherever possible. Attempt will be made to add several new bank access sites annually.

Question 10 asked recipients how far from home (one way) they traveled to fish PWMA lakes. Fifty-five percent of respondents travel less than 25 miles to fish the WMA. Responses for each distance category; less than 10 miles, 11 – 25 miles, 26 – 50 miles, 51 – 100 miles, and more than 100 miles, were 17.8%, 37.1%, 23.5%, 11.8%, and 9.8%, respectively. Forty-seven percent of respondents live in Hopkins, Muhlenberg, or Ohio counties.

Beginning in 2012, several lakes in the “walk in” area of the Ken tract in Ohio county were sampled and found to have potential as trophy sunfish lakes. Pallet attractors were added to the lakes, fertilization programs were initiated, and as mentioned, redear sunfish fingerlings were stocked at approximately 150/acre. The stocking rate was higher than usual due to the existence of stunted largemouth bass populations in each lake. We wanted to gauge public interest in the development of trophy sunfish lakes so Question 11 asked recipients how far they would be willing to walk on maintained roads and/or fire breaks to access an intensively managed trophy sunfish lake. We received 550 responses with the most common response provided being “one mile” (N = 128). Responses ranged from “none/0” to “20 miles”. When grouped, 21.5% of respondents were willing to walk up to ¼ mile, while another 19.1% were willing to walk greater than one mile to fish a trophy sunfish lake. This portion of anglers will benefit from our trophy sunfish management. The trophy management strategy would probably not work if more anglers would be willing to walk into these areas. Pressure and harvest need to be modest for this project to succeed. We acknowledge the inherent bias associated with asking anglers to provide a set distance they are willing to walk as each may judge distance differently. However, in this instance we felt it acceptable in order to gauge interest in the trophy sunfish project. For a full list of responses to Question 11 refer to Appendix B.

Question 12 asked recipients what concerns they had about fishing at PWMA. We provided eight different choices and the ability to write in their own response. A total of 569 recipients responded to this question. Only 10.2% selected “None” for their concern(s). The vast majority of responses (59.7%) involved the inaccessibility of lakes (either walking or driving). The remaining concerns (in order of frequency) were; not enough boat access (37.0%), not enough bank fishing access (36.9%), too much vegetation in lakes (32.0%), “other” (22.3%), poor quality of fishing (21.3%), the permit is too expensive (17.9%), and too many anglers (10.4%). The order in which these responses fell was not surprising. We know access related issues are high on the “to-do” list and we know aquatic vegetation is a major issue at Peabody. What we did not know was the extent of angler concerned with vegetation problems. During the summer, vegetation grows uncontrollably and severely hampers boat access and bank fishing access. NWFD staff routinely monitor and spot treat several locations but it is not feasible to address WMA wide vegetation issues. Quality of fishing is a relative term that means very different things to different people. We have the difficult task of attempting to satisfy two different groups of anglers; those in favor of trophy fish and those who wish to catch many smaller fish. We are trying to balance the two, although trophy bass, catfish, or crappie is not a realistic possibility in Peabody lakes. Infertility and

high fishing pressure negate any attempts of trophy fish management. Write in responses were dominated by non-fishing related issues such as land sales/trades, roads, maps, trash, etc. For a full list of write in responses to Question 12 refer to Appendix B.

Next we asked if recipients fished PWMA in either of the previous two years (2011, 2010). The majority of respondents did fish on PWMA in both 2011 (85.2%), and 2010 (78.0%). If a person indicated that they did not fish in 2011 and/or 2010 we asked them to tell us why they did not fish. We provided nine different choices and the option to write in a response. The most common response to Question 14 was “not enough time to fish” (44.6%). Another 39.7% wrote in a response with the majority of those relating to only recently finding out about PWMA. The remaining responses (in frequency of occurrence) were; no one to fish with (16.5%), too far to travel (14.0%), not enough bank fishing access (13.2%), poor fishing success (10.7%), user permit was too expensive (10.7%), not enough boat fishing access (3.3%), too much walking (1.7%), and too many other anglers (0.8%). In general, reasons for not fishing PWMA in previous years had little to do with a lack of fishery related improvements. For a full list of “other” responses to Q14 refer to Appendix B.

Question 15 was an attempt to dig deep into the angler’s thinking and find out what improvements they would most like to see on PWMA. We ended up with 732 comments which addressed several known issues and brought up many items we have overlooked. Many responses re-addressed concerns covered in previous questions. That can be expected since these issues were already put into their mind. The top ten responses by frequency of occurrence were as follows; better boat access/ramps (N = 116), better/more fish stocking (N = 92), better/more bank access (N = 75), better access (N = 74), vegetation control (N = 45), better/more roads/vehicle access (N = 31), more lakes open/available for fishing (N = 20), signs at lakes with fish present/regs/map, etc (N = 19), better parking for vehicles and/or trailers (N = 17), and more fish attractors/in-lake cover (N = 15). The top seven responses were no surprise. Number eight, signs at lakes, would be a good idea if not for 293 different lakes on the WMA. Due to its remoteness, vandalism of signs has been rampant in the past and inhibits many site upgrades. Number 9, better parking, is recognized as a problem. However, expanding parking areas requires large resource expenditures in some areas, and is not possible in others due to topographical issues. We will work with PWMA staff to identify and improve locations most in need. Number ten, more fish attractors in lakes, is a bit surprising because work has been completed in many lakes on the area. Several hundred Christmas trees and pallet attractors are deployed each year. Most additions have been in the larger more popular lakes, but we plan to expand efforts to additional lakes in the upcoming years. For a full list of responses to Question 15 refer to Appendix B.

At the end of the survey we thanked respondents for their time and provided the opportunity to leave additional comments about fishing at PWMA. Similar to previous survey questions with the option to write in responses we received a plethora of comments over a wide range of topics. Most responses were completely unrelated to fishing. The top six responses based on rate of occurrence were; lost/sold too many lakes/open up old fishing areas (N = 35), keep up the good work (N = 21), need better/easier way to obtain maps (N = 14), need more/better camping areas (N = 14), need more regulation enforcement/Conservation Officer patrols (N = 12), and the permit is too expensive (N = 12). It was somewhat unexpected to receive praise for the work that has been done and that is ongoing. Comments

that may be useful to the PWMA manager will be passed along. A full list of comments received can be found in Appendix B.

Future Work

The following list outlines the future direction of fisheries work on Peabody Wildlife Management Area. Items are listed in order of priority based on Angler Survey results and KDFWR staff discussions.

- Increase efforts to improve bank fishing opportunities.
- Continue to improve existing boat ramps and identify appropriate locations for new ramps.
- Continue and increase habitat improvement projects on lakes.
- Continue to work on expanding parking areas.
- Evaluate current and additional stocking opportunities.
- Continue work on a PWMA fishing guide.
- Increase angler knowledge regarding PWMA fishery resources.

Acknowledgements

The majority of survey work was completed by Northwestern Fishery District personnel. Many long hours were spent folding surveys, stuffing envelopes and entering data. Dave Dreves and Paul Wilkes were very helpful in the planning stages and passed on previously acquired knowledge that helped immensely. Amy Akers and/or Meagan Huston handled every returned survey and made sure all made it safely back to NWFD. They were compensated in peanut M&Ms, although likely not nearly enough. We also need to thank Don Bunnell for running survey results through SAS. Funding for this project was provided in part through the Sport Fish Restoration grant program (F-50-36; KY-F-13AF00519).

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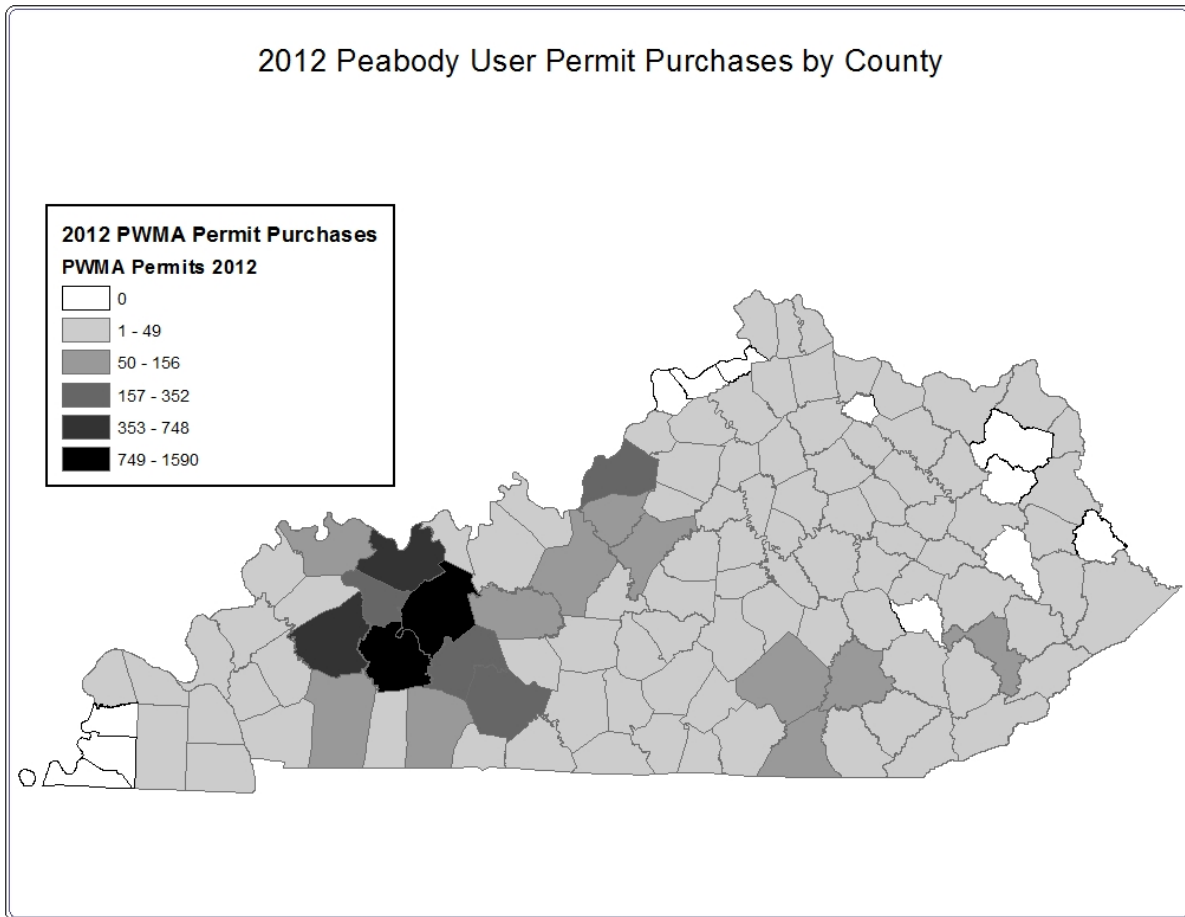


Figure 1. Peabody WMA user permit purchases by Kentucky county in 2012 (N = 7,435). Permit holders represented 108 of 120 Kentucky counties. An additional 44 permits were purchased by non-residents from FL, IL, IN, MD, MS, OH, TN, and WV.



**KENTUCKY DEPARTMENT OF FISH & WILDLIFE RESOURCES
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Marcheta Sparrow
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Commissioner

Dear Angler,

Within the next few days, you will be receiving a request to complete a brief questionnaire for an important research project being conducted by the Fisheries Division of the Kentucky Department of Fish and Wildlife Resources.

A survey is being conducted to gauge angler fishing habits and opinions concerning fishing on the Peabody Wildlife Management Area in Hopkins, Muhlenberg, and Ohio counties. We need your input to assist us when making decisions about the direction of future fisheries management at Peabody Wildlife Management Area.

We ask that you complete the survey to the best of your ability and at your earliest convenience. Thank you for your time and consideration. It is only with the generous help of people like you that we can manage your fisheries resources to the best of our ability.

Sincerely,

Robert E. Rold
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Figure 2. Pre-survey contact letter sent first class mail to survey recipients.



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May 3, 2013

One of the responsibilities of the Kentucky Department of Fish and Wildlife Resources is the management of fisheries resources throughout the state. In order to better serve you, our constituents, I am writing to request your help in a survey of anglers. This survey is an effort to gauge angler fishing habits, attitudes, and opinions concerning the Peabody Wildlife Management Area.

You are one of a small number being asked to provide their opinions regarding fishing on the Peabody Wildlife Management Area. We are contacting a random sample of anglers who purchased a fishing license and a Peabody WMA user permit in 2012. In order for the results to be truly representative of all persons fishing, it is important that each questionnaire be completed and returned in the envelope provided.

You may be assured of complete confidentiality. None of your personal information will ever appear in any report, nor will anyone know who gave a certain response. We will use the information you provide to guide future fisheries management decisions on Peabody WMA.

We would be happy to answer any questions you may have about this survey. We can be reached by phone at 270-273-3117. Thank you very much for your assistance.

Sincerely,

Robert E. Rold
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Calhoun, KY 42327



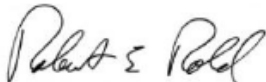
Figure 3. Example of survey cover letter sent to each survey recipient. A mail merge tool was used to insert recipient name and address into each letter.

Last week, a questionnaire seeking your opinions about fishing on the Peabody Wildlife Management Area was mailed to you. Your name was randomly selected from a list of all people who purchased a fishing license and Peabody WMA user permit in 2012.

If you have already completed and returned the questionnaire to us, please accept our sincere thanks. If not, please do so at your earliest convenience. We are especially grateful for your help because your response helps determine the future direction of fisheries management on Peabody WMA.

If you did not receive a questionnaire, or if it was misplaced, please call me at 270-273-3117 and we will get another one in the mail to you right away.

Sincerely,



Robert E. Rold
Northwestern Fishery District Program Coordinator
Kentucky Department of Fish and Wildlife Resources

Figure 4. Reminder/Thank You postcard sent to each survey recipient approximately two weeks after initial survey mailing.



**KENTUCKY DEPARTMENT OF FISH & WILDLIFE RESOURCES
TOURISM, ARTS AND HERITAGE CABINET**

Steven L. Beshear
Governor

#1 Sportsman's Lane
Frankfort, Kentucky 40601
Phone (502) 564-3400
1-800-858-1549
Fax (502) 564-0506
fw.ky.gov

Marcheta Sparrow
Secretary

Dr. Jonathan W. Gassett
Commissioner

June 10, 2013

The first week of May, we wrote to you seeking your opinions regarding fishing on the Peabody Wildlife Management Area. As of today, we have not received your completed questionnaire. We realize that people are busy with many different things and that you may not have had the time to complete it. However, we would genuinely appreciate hearing from you.

The survey is being conducted so that anglers like you can affect the direction of future fisheries management on Peabody WMA. We are writing to you again because the survey's usefulness depends on our receiving a questionnaire from each respondent. In order for information from the survey to be truly representative of Peabody anglers, it is essential that each person in the sample return their questionnaire. We are grateful for any information you are able to provide, including letting us know that you do not fish on Peabody WMA.

In the event that your questionnaire has been misplaced, a replacement is enclosed, along with a postage paid return envelope. We would be happy to answer any questions you may have about the survey. If desired, please contact us at 270-273-3117. Thank you for your time and assistance.

Sincerely,

Robert E. Rold
Northwestern Fishery District - Program Coordinator
1398 Highway 81 N.
Calhoun, KY 42327

Figure 5. Cover letter included with second survey packet. A mail merge tool was used to insert recipient name and address in each letter.

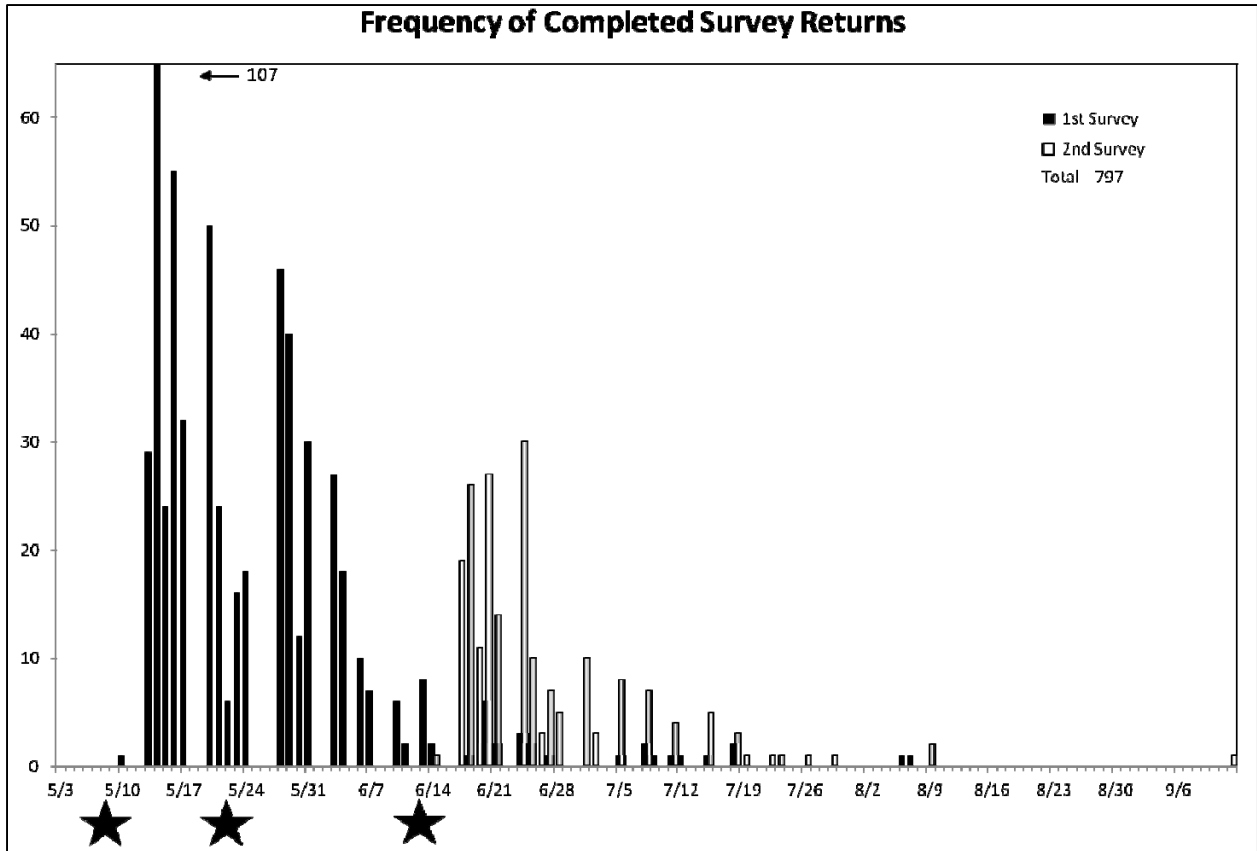


Figure 6. Frequency of completed survey returns. Stars indicate points of contact with recipients (first survey packet, reminder/thank you postcard, second survey packet).

2012 Peabody Surveys Respondents by County

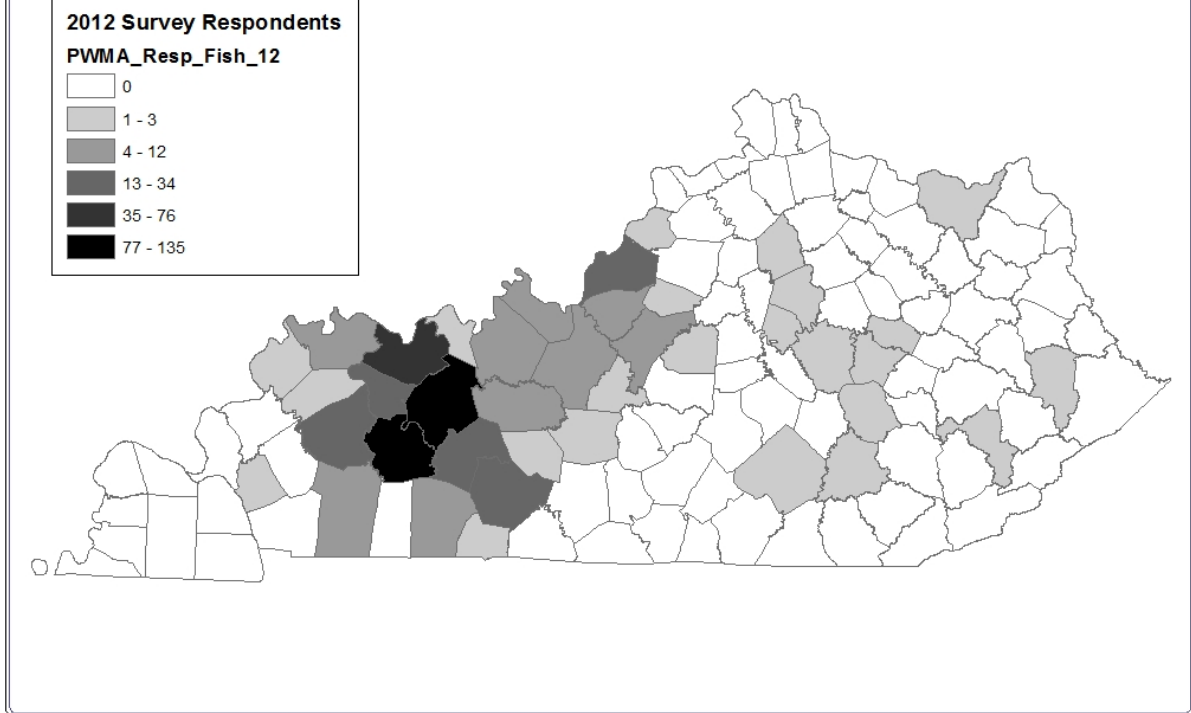


Figure 7. Frequency of survey respondents by Kentucky county (N = 795). One IN and TN county were represented as well.

2014 Peabody WMA Angler Attitude Survey

1. What is the primary reason you purchase a Peabody WMA user permit? (check only one) (N = 797)

27.4% Hunting **60.0%** Fishing **11.8%** Other (please specify) **0.9%** No Response

2. Approximately how many days did you fish in Kentucky in 2012? (N = 763) **Range: 0 - 300 days, Mean: 48 days**

3. Approximately how many days did you fish Peabody WMA lakes in 2012? (N = 776) **Range: 0 - 200 days** **Mean: 25.6 days** If 0, please skip to and return

16
your survey.

4. How many years have you been fishing Peabody WMA lakes? (N = 577)

4.2% Less than 1 year
16.6% 1 – 3 years
13.5% 4 – 6 years
7.8% 7 – 10 years
57.9% More than 10 years

5. Using the attached map, please circle on the map and number 1 through 5, the five (5) lakes you fish most frequently at Peabody WMA, with 1 being the most frequent and 5 being the least frequent.

A minimum of 141 different lakes were fished. Some responses were unusable. Top 10 lakes fished based on total frequency of occurrence are, in order, Island, South, Ken, Goose, Musky, Jack’s, Rob’s, Bell, Adkin’s Swamp, Tom’s.

6. Which of the following species of fish do you prefer to fish for most at Peabody WMA? Please rank up to three (3) of the following species where 1= most preferred, 2= second most preferred, and 3= third most preferred.

Largemouth Bass	1: 62.0%	2: 12.3%	3: 15.9%	Total: 90.2%	N = 432
Bluegill and Redear	1: 20.7%	2: 30.7%	3: 26.7%	Total: 78.1%	N = 374
Sunfish (Shellcracker)					
Catfish (blue, channel, and flathead catfish)	1: 5.2%	2: 15.9%	3: 17.1%	Total: 38.2%	N = 183
Crappie	1: 11.1%	2: 31.5%	3: 23.2%	Total: 65.8%	N = 315
Muskellunge (Musky)				Total: 1.3%	N = 6
Trout				Total: 6.9%	N = 33
Other (please list)	Bowfin, gar, warmouth, stripes, carp, rough fish			Total: 1.8	N = 9

7. For the species that you ranked 1-3 above, how would you rate your fishing success at Peabody WMA lakes?

		Very Good	Good	Fair	Poor	Very Poor
Largemouth Bass.....	N = 499	11.4%	31.3%	47.15	9.4%	0.8%
Bluegill and Redear Sunfish.....	N = 439	22.1%	42.1%	28.2%	6.4%	1.1%
Catfish (blue, channel, flathead catfish)....	N = 222	6.3%	20.3%	42.3%	25.7%	5.4%
Crappie.....	N = 380	3.7%	23.9%	42.6%	24.5%	5.3%
Muskellunge (musky).....	N = 9	11.1%	22.2%	33.3%	11.1%	22.2%
Trout.....	N = 37	8.1%	32.4%	32.4%	18.9%	8.1%
Other (listed above).....	N = 9	33.3%	33.3%	33.3%	0.0%	0.0%

8. To the nearest inch, what length do you consider “keeper” (smallest size fish you would take home) and “trophy” lengths for each of the following species:

	<u>Keeper</u>	<u>Trophy</u>
Largemouth Bass	Mode: 12”, Range: 6 – 24” (N = 455)	Mode: 20”, Range: 12 – 36” (N = 404)
Bluegill and Redear Sunfish	Mode: 8”, Range: 2 – 12” (N = 405)	Mode: 12”, Range: 6 – 26” (N = 317)
Catfish (blue, channel, flathead catfish)	Mode: 12”, Range: 8 – 36” (N = 275)	Mode: 30”, Range: 12 – 60” (N = 215)
Crappie	Mode: 10”, Range: 5 – 16” (N = 371)	Mode: 16”, Range: 8 – 24” (N = 305)
Muskellunge (Musky)	Mode: 30”, Range: 12 – 48” (N = 54)	Mode: 40”, Range: 12 – 60+” (N = 57)
Trout	Mode: 12”, Range: 6 – 24” (N = 95)	Mode: 20”, Range: 10 – 36” (N = 84)
Other (please list)	Any, None, 10” (N = 5)	None, 14”, 21” (N = 4)

9. Considering all of the times you fish at Peabody WMA, please indicate what percentage of time you fish from a boat and from the bank (Your answer should equal 100%). (N = 572)

Boat 100%: 40.5% Bank 100%: 9.1% > 50%: 27.1%

10. Approximately how far from home (one way) do you travel to fish Peabody WMA lakes? (N = 574)

17.8% Less than 10 miles
37.1% 11 – 25 miles
23.5% 26 – 50 miles
11.8% 51 – 100 miles
9.8% More than 100 miles

11. How far would you be willing to walk on maintained gravel roads and fire breaks to fish an intensively managed “trophy” bluegill and redear sunfish lake at Peabody WMA? (N = 550)

Mode: 1 mile, Range: 0 – 20 miles

12. What concerns do you have about fishing at Peabody WMA? (check all that apply) (N = 569)

10.2% None
10.4% Too many anglers
59.7% Inaccessibility of some lakes (either walking or driving)
21.3% Poor quality of fishing
32.0% Too much vegetation in lakes
36.9% Not enough bank fishing access
37.0% Not enough boat access
17.9% The permit is too expensive
22.3% Other (please specify) (Mostly non fishing related issues such as land sale/trade, roads, maps, trash, etc.)

13. Did you fish Peabody WMA lakes in the two years previous to 2012? (N = 574)

	No	Yes
2011	14.8%	85.2%
2010	22.0%	78.0%

IF YOU FISHED PEABODY WMA IN BOTH 2010 AND 2011, PLEASE SKIP TO QUESTION 15 ON THE NEXT PAGE.

14. Please tell us why you did not fish Peabody WMA lakes in one or both of the previous two years (2011 & 2010). (N = 121)

44.6% Not enough time to fish
16.5% No one to fish with
14.0% Too far to travel
0.8% Too many other anglers
1.7% Too much walking
10.7% User Permit was too expensive
10.7% Poor fishing success
13.2% Not enough bank fishing access
3.3% Not enough boat fishing access
39.7% Other (please specify) (Most common response was “Did not know about WMA”)

15. What fishing related improvements would you most like to see at Peabody WMA lakes? (N = 732)

Top 10 responses by frequency of occurrence.

1. **Better boat access/ramps (N = 116)**
2. **Better/more fish stocking (N = 92)**
3. **Better/more bank access (N = 75)**
4. **Better access (N = 74)**
5. **Vegetation control (N = 45)**
6. **Better/more roads/vehicle access (N = 31)**
7. **More lakes open/available for fishing (N = 20)**
8. **Signs at lakes with fish present/regs/map, etc. (N = 19)**
9. **Better parking for vehicles and/or trailers (N = 17)**
10. **More fish attractors/in lake cover (N = 15)**

16. Finally, we would like to know some basic information about you.

County of Residence: (N = 797) **59 KY, 1 IN, 1 TN county** Gender: **86.7% Male** **13.0% Female**

Age: **Average: 49.5 years old, Range: 14 – 85 years old**

THANK YOU FOR TAKING THE TIME TO COMPLETE THIS SURVEY.

Your contribution to this effort is very much appreciated. The responses you have given during this survey will help guide our fisheries management decisions at Peabody WMA for years to come. Is there anything else you would like to tell us about the fishing at Peabody WMA?

COMMENTS

Top 6 responses by frequency of occurrence.

1. **Lost/sold too many lakes, open up old fishing areas (N = 34)**
2. **Keep up the good work. (N = 21)**
3. **Need better/easier to obtain maps. (N = 14)**
4. **Need more/better camping areas. (N = 14)**
5. **Need more enforcement/game warden patrols. (N = 12)**
6. **Permit is too expensive. (N = 12)**

Please return your completed questionnaire in the postage paid envelope provided to:

**Kentucky Department of Fish and Wildlife Resources
1 Sportsman's Lane
Frankfort, KY 40601**

Results of this survey will be made available after October 2013 at any of our fisheries district offices, headquarters, or on the KDFWR website at (www.fw.ky.gov). If you have questions regarding this survey, please contact Rob Rold or Jeremy Shiflet by phone at 1-270-273-3117 (ext).

Appendix B

Question 5. Lakes selected by survey anglers. C1 through C5 indicate how an angler labeled the lake in order of fishing frequency, with C1 being most frequent.

Lake Name	C 1	C 2	C 3	C 4	C 5	TOTAL
ISLAND	56	53	39	15	23	186
SOUTH	64	55	25	33	9	186
KEN	60	31	23	23	28	165
GOOSE	44	25	12	17	12	110
MUSKY	18	13	23	27	7	88
JACKS	10	9	18	9	12	58
ROBS	0	12	11	11	9	43
BELL	5	9	8	9	11	42
ATKINS SWAMP	8	12	0	7	5	32
TOMS	11	11	3	4	3	32
HARP HOLE	2	9	9	3	8	31
FID 59/60/61	0	8	9	8	3	28
OLD BOYSCOUT	2	5	9	7	4	27
GREBE POND	5	8	4	4	4	25
MERLIN	0	11	7	5	2	25
COMMUNITY	6	9	3	1	2	21
HIGHWALL PIT	0	9	4	2	4	19
BOTTOM LAKE	4	7	6	1	1	19
SL1 LAKE	0	5	3	4	2	14
CAN	0	2	4	5	2	13
BOYSCOUT CROSSING	2	3	2	4	1	12
LITTLE TWIN TILES	3	1	2	5	1	12
SUNRISE/LILLY/MUDHOLE/SL3	1	4	6	0	1	12
SKIMMER LAKE	2	1	2	3	3	11
BEAVER PIT	3	0	4	2	2	11
LAYDOWN LAKE	4	0	4	1	2	11
FID 129	8	1	1	0	1	11
LITTLE GILL POND	1	4	1	4	1	11
FLAT CREEK	4	1	1	2	2	10
PANTHER LAKE	2	4	1	3	0	10
RQL2 LAKE	0	5	2	3	0	10
BEAVER LAKE	0	3	0	2	4	9
NEW BOYSCOUT	1	1	2	3	2	9
FID 258	1	1	2	3	1	8
SHADY LAKE	1	2	1	1	3	8
FID 62	0	1	1	4	2	8

ACCESS	1	3	0	1	2	7
HONEYCONE	0	0	3	2	2	7
FID 220	2	1	2	1	1	7
TURKEY FOOT LAKE	0	1	5	1	0	7
FID 69	2	1	2	0	2	7
COPPER PIT	0	1	2	1	3	7
EGRET POND	1	1	3	0	1	6
FID 176	0	2	2	0	2	6
RQL1 LAKE	0	0	2	2	2	6
FID 45	3	0	0	0	2	5
FID 20	2	2	0	1	0	5
SHALLOW LAKE	2	0	0	3	0	5
WATERSNAKE LAKE	0	1	1	0	3	5
SEDGE LAKE	0	0	3	1	1	5
LITTLE MUDDY LAKE	1	2	1	0	1	5
FINGER LAKE	1	0	0	2	2	5
FID 80/81/82/145	1	2	1	1	0	5
FID 19	0	1	2	1	1	5
FID 11	3	0	0	2	0	5
DEEP HOLE	1	0	1	0	2	4
FID 265	2	1	1	0	0	4
FID 3	3	1	0	0	0	4
FID 77	0	3	1	0	0	4
BAREBANK LAKE	0	1	1	1	1	4
FID 177	0	1	0	3	0	4
SHOVEL LAKE	0	1	0	1	2	4
FID 154/155	0	0	1	1	2	4
MUCK LAKE	2	1	1	0	0	4
FID 13	0	0	1	2	1	4
FID 189/185	2	1	0	0	1	4
POCKET LAKE	0	1	1	0	1	3
FID 103	0	0	1	2	0	3
FID 96	1	0	0	0	2	3
FID 260	1	1	0	0	1	3
FID 75	1	0	2	0	0	3
FID 61	0	2	1	0	0	3
FID 57	0	0	1	1	1	3
FID 171	0	0	2	1	0	3
FID 59/60/61	0	1	1	0	1	3
FID 67	0	1	1	1	0	3
FID 129	1	0	1	1	0	3

CYPRESS/WILLOW POND	0	2	0	0	1	3
FID 258	2	0	0	0	1	3
FID 24	0	2	0	1	0	3
FID 223	0	0	2	1	0	3
FID 132	0	0	1	0	2	3
BORDER LAKE	0	0	0	0	2	2
FID 108	0	1	0	0	1	2
FID 42/95	0	0	1	0	1	2
OVERFLOW POND	1	0	1	0	0	2
FID 182	0	0	1	0	1	2
FID 43	0	2	0	0	0	2
FID 105	0	1	0	0	1	2
FID 93	0	1	1	0	0	2
FID 89	1	0	0	1	0	2
SCREWHEAD LAKE	1	0	0	0	1	2
CIRCLE LAKE	0	0	2	0	0	2
TURLEY SLOUGH	0	1	0	0	1	2
FID 238	0	0	0	1	1	2
FID 239	0	1	1	0	0	2
FID 37	0	0	0	1	1	2
FID 240	0	0	1	1	0	2
FID 178	0	0	2	0	0	2
FID 167	0	2	0	0	0	2
FID 159	0	0	2	0	0	2
RQL3 LAKE	0	0	0	2	0	2
FID 151	0	0	1	0	1	2
FID 263	0	0	0	1	1	2
FID 278	1	0	0	1	0	2
FID 126/127/128	0	0	2	0	0	2
FID 130	0	1	0	1	0	2
FID 211	1	1	0	0	0	2
FID 131	0	1	1	0	0	2
FID 125	0	1	1	0	0	2
FID 228	0	0	0	0	2	2
FID 161	0	0	0	0	2	2
FID 270	0	1	0	0	0	1
FID 114	0	0	0	0	1	1
FID 124	0	0	0	0	1	1
SEA LAKE	0	0	1	0	0	1
FID 71	0	0	0	0	1	1
FID 255	0	0	0	0	1	1

FID 212	0	0	1	0	0	1
FID 264	0	0	1	0	0	1
FID 217	1	0	0	0	0	1
FID 188	1	0	0	0	0	1
FID 186	0	1	0	0	0	1
LIMESTONE LAKE	0	0	0	0	1	1
TAZ HOLE	0	0	1	0	0	1
FID 157	0	1	0	0	0	1
FID 163/164	0	0	0	1	0	1
FID 187	0	0	1	0	0	1
FID 172	0	1	0	0	0	1
FID 173	0	0	1	0	0	1
FID 225	0	0	0	0	1	1
FID 23	0	0	1	0	0	1
DAMSEL POND/FID 209	0	0	0	1	0	1
SLENDER LAKE	0	1	0	0	0	1
FID 281	0	0	0	1	0	1
FID 51	0	1	0	0	0	1
FID 206	1	0	0	0	0	1
FID 139	0	1	0	0	0	1
FID 140	0	0	1	0	0	1
FID 137/138	0	1	0	0	0	1

Question 11. List of survey responses to Q11 “How far would you walk to fish an intensively managed trophy bluegill and redear sunfish lake”?

Distance	Frequency
1 MILE	128
0	69
100 YDS	59
1/2 MILE	55
2 MILES	51
200 YDS	23
1/4 MILE	22
50 YDS	20
300 YDS	16
3 MILES	14
500 YDS	14
1.5 MILE	11
1-2 MILES	7
150 YDS	7

UNLIMITED	6
250 YDS	4
1/2-1 MILE	3
2-3 MILES	3
5 MILES	3
1/4-1/2 MILE	2
10 MILES	2
100-200 YDS	2
200-300 YDS	2
2-5 MILES	2
25 YDS	2
4 MILES	2
75 YDS	2
<1 MILE	1
0.2 MILE	1
1 + MILE	1
10 YDS	1
100 FEET	1
1-1.5 MILES	1
125-150 YDS	1
1500 YDS	1
150-200 YDS	1
20 MILES	1
200-500 YDS	1
3/4 MILE	1
30 YDS	1
3-4 MILES	1
400 YDS	1
50-100 YDS	1
5-10 MILES	1
600 YDS	1
AS FAR AS I COULD	1

Question 12. Responses to “Other” concerns about fishing at Peabody WMA.

Response	Frequency
BOATERS ARE USING THEIR MOTORS NOW	1
ANGLERS WHO KEEP EVERYTHING	1
MORE LAW ENFORCEMENT	3
BEST LAKES ARE NOW PART OF NAT GUARD	1
BETTER CRAPPIE FISHING	1

CAMPERS BLOCKING BOAT RAMPS	1
CANT USE ATV	2
CLOSED GOOD LAKES	4
CUTTING DOWN SIZE LIMIT ON REFUGES	1
DANGERS FROM DRUNKS AND DRUGGIES	2
DON'T WANT TO PAY COAL COMPANY TO FISH LAKES THEY DON'T MOW AROUND	1
FEW LAKES HAVE 5+ LB LMB	1
FEWER PLACES TO FISH	1
FISH STUNTING	1
FISHING AT NIGHT WITH ALL THE DRUG ACTIVITY	1
FISHING DURING HUNTING SEASON, NON-LOCALS DON'T KNOW THE LAND AND ALMOST SHOOT PEOPLE	1
ILLEGAL ACTIVITY, DUMPING, PEOPLE WITHOUT PERMITS	1
LACK OF CATCH AND RELEASE	1
LAKE NAME SIGNS	1
LAKES CLOSED B/C THEY DON'T INSURE RR CROSSINGS	1
LITTERBUGS	2
LOCALS DESTROYING ROADS	1
LOOSING ACCESS TO PREVIOUSLY OPEN LAKES/PROPERTY	11
LOST BEST LAKES TO NAT GUARD	1
MANY LAKES ARE BEING BLOCKED OFF	1
MORE AND BETTER CAMPING SITES	1
MORE CLEAR TRAILS	1
MORE KID FRIENDLY SPOTS	2
NAT GUARD TAKING LAND AT RQ	1
NEED 15" SIZE LIMIT ON BASS	1
NEED MORE FISH IN LAKES	1
NEED UPDATED MAPS	1
NEVER CAUGHT CATFISH IN PEABODY	1
NIGHT FISHING ISLAND AND SOUTH, SIZE AND CREEL LIMIT ON LMB	1
NO GAS MOTORS	1
NO GATES	1
NO OUTBOARD MOTORS	1
NOT ENOUGH AREAS OPEN	1
NOT ENOUGH FISHING AREAS	1
NOT ENOUGH HANDICAP ACCESS	3
NOT ENOUGH PARKING FOR BOAT TRAILERS	1
NOT ENOUGH SIGNAGE	1
ONE PERMIT REQUIRED PER FAMILY	1
OVERFISHING	1
OVERGROWN BANKS	1

OVERPOPULATED WITH SMALL BASS	1
PERMIT SHOULD BE INCLUDED IN DISABILITY LICENSE	1
PERMIT SHOULD COST LESS B/C SO MANY LAKES HAVE BEEN SOLD	2
POOR BOAT RAMPS	6
POOR ROAD ACCESS	1
POOR ROAD CONDITION	4
RAMPS NEED MAINTENANCE	4
RAMPS NOT GOOD FOR BIGGER BOATS	1
RESTROOMS AT LARGER AREAS	1
ROUGH FISH GETTING INTO SOUTH LAKE	1
SELLING LAND TO ARMSTRONG COAL AND FILLING PITS WITH COAL ASH	1
SENIOR DISCOUNT	1
SHOULD BE NO KEEPING BASS UNDER 15 IN	1
SHRINKING AVAILABILITY OF LAKES	1
SIZE AND NUMBER OF FISH HAS DROPPED OVER THE YEARS	1
SIZE OF BASS	1
SLOT LIMITS ON REFUGE LAKES, 15" LIMIT 1 FISH OVER 18/DAY	1
SOLD OFF HALF OF PROPERTY AND STILL CHARGE SAME FOR PERMIT	1
SOME GOOD LAKES ARE NO LONGER PART OF PWMA	3
SOME LAKES NEED MORE STOCKING	2
THERE ARE LAKES THAT ARE NOT ON MAPS	1
MUSKY LAKE IS DRY	1
SNAKES	3
TOO CROWDED IN MUHLENBER CO	1
TOO EASY ACCESS TO SOME HOLES THAT ARE NOW OVERFISHED	1
TOO FEW LAKES OPEN FOR FISHING WITHIN WALKING DISTANCE	1
TOO MANY 10-11" LMB	1
TOO MANY BIG BASS REMOVED, NOT ENOUGH SMALL ONES	1
TOO MANY LAKES ARE ON ARE PRIVATE PROPERTY	1
TOO MANY LAKES CLOSED TO PUBLIC, LEASED BY CLUBS	1
TOO MANY REGULATIONS	1
TOO MANY RESTRICTED AREAS/LAKES	4
TOO MANY TICKS	2
TRASH	5
SECURITY	1
TROUBLE MAKERS WITHOUT PERMITS	1
UNATTENDED VEHICLES	1
WANT TO BE ABLE TO DRIVE EVERYWHERE	1
WANT TO DRIVE TO ALL LAKES	2
WORRIED WMA WILL NOT BE AVAILABLE IN FUTURE	3

Question 14. Responses to “Other” reasons respondents did not fish Peabody WMA in 2011 and/or 2010.

Response	Frequency
DIDN'T KNOW ABOUT PWMA	12
HEALTH REASONS	4
DIDN'T LIVE IN KY	3
FIRST FISHED PWMA IN 2011	3
NOT FAMILIARE WITH AREA	3
DID NOT FISH THERE UNTIL I MET MY HUSBAND	2
DIDN'T FISH THEN	2
DIDN'T HAVE A SMALL BOAT TO USE	2
DIDN'T LIVE CLOSE ENOUGH	2
JUST DIDN'T BUY A PERMIT	2
BEST LAKES IN MUHLENBERG CO ARE LOCKED UP	1
BUDDY WOULD NOT PAY \$15 FOR PERMIT	1
BUSY YEAR	1
DO NOT FISH MUCH	1
DRUG DEALERS	1
JUST STARTED FISHING AGAIN IN 2012	1
LIKE BIG WATER	1
MORE SECURE CAMPING	1
NO USE OF ATV	1
POOR MAPS	1
TOO YOUNG TO NEED IT	1
TRASH DUMPED BY LOCALS	1
VEGETATION IN LAKES AT BANK FISHING AREAS	1
WASN'T BOWFISHING YET	1

Question 15. Responses concerning fishing related improvements survey respondents would like to see most at Peabody WMA.

Response	Frequency
BETTER BOAT ACCESS/RAMPS	116
BETTER/MORE BANK ACCESS	75
BETTER ACCESS	74
BETTER/MORE FISH STOCKING	54
VEG CONTROL	45
BETTER/MORE ROADS/VEHICLE ACCESS	33
SIGNS AT LAKES W/ FISH/REGS/ETC	21
BETTER PARKING FOR VEHICLES/TRAILERS	17

MORE FISH ATTRACTORS/COVER	15
MORE LAKES OPEN/AVAILABLE	14
INCREASE LMB SIZE REGS	14
BETTER AND UP TO DATE MAPS/FISHING GUIDES	13
HANDICAPPED ACCESS BOAT/BANK	12
STOCK/MORE CATFISH	11
STOCK/MORE BASS	10
CLEARER BANKS/PATHS AROUND LAKES	10
MORE LAW ENFORCEMENT	9
STOCK/MORE CRAPPIE	9
BETTER ROAD/BOUNDARY SIGNS	9
MORE/BIGGER/TROPHY BASS	7
TRASH CLEANUP	6
MORE CATCH AND RELEASE	6
TROPHY LAKES	6
DECREASE LMB SIZE REGS	6
BOAT DOCKS/FISHING PIERS	5
BETTER QUALITY OF FISH	5
IMPROVE BOAT RAMPS AT SOUTH LAKE	5
RESTROOMS	5
CAMPING AREAS/MAINTAINED CAMPSITES	4
STOCK/MORE RE	4
BETTER FISHING	4
DECREASE LMB CREEL LIMIT	4
LONGER FISHING SEASON FOR REFUGE LAKES	4
BETTER INFO ON WHICH SPECIES ARE IN EACH LAKE	4
NONE	4
OPEN ALL LAKES/CLOSED LAKES	3
STOCK/MORE TROUT	3
USE OF ATVS	3
OPEN GATES	3
BETTER CATFISHING	3
TRASH CONTAINERS AT LAKES	2
BETTER CRAPPIE FISHING	2
DRIVING ACCESS TO ALL LAKES	2
STOCK/MORE BG	2
BETTER TRAILS FOR ACCESS TO LAKES AWAY FROM ROAD	2
OPEN WALK IN AREA TO VEHICLES	2
MORE FISH	2
TOO MANY SMALL BASS	2
NO NIGHT FISHING	2

RAISE WATER LEVEL IN SOUTH LAKE 12-18" TO HELP SLOUGH	2
I THINK IT IS A LOT BETTER AS IT IS NOW	2
ACCESS TO VOGUE AND OTHER LAKES SHOWN ON MAP BUT NON-ACCESSIBLE, MILITARY HAS BLOCKED AND FENCED OFF SOME LAKES	1
FREE FISHING FOR SENIOR CITIZENS	1
DEDICATED MUSKY LAKES, LESS SNAKES	1
BANK FISHING ACCESS AT SOUTH LAKE	1
CLEANING STATIONS	1
HANGING PERMIT FOR UNATTENDED VEHICLES	1
FISH SPECIFIC LAKES, CATFISH/CRAPPIE LAKES	1
INCLUDE PRINTED MAP WITH PERMIT PURCHASE	1
IMPROVE ISLAND LAKE RAMP	1
FEWER REGULATIONS	1
HIGHER SIZE LIMITS ON CRAPPIE, MAINTAINED AND CLEANED UP MORE	1
MORE PICNIC/COOKOUT AREAS	1
JOHN BOAT LAUNCHES ON SMALLER LAKES	1
PROHIBIT FISHING ON LAKES THAT ARE FISHED OUT, RESTORE THAT LAKE AND THEN REOPEN FISHING	1
KEEP MINING COMPANIES FROM LOCKING GATES	1
A LOT OF FISHING HOLES WERE BOUGHT BY NAT GUARD	1
LAKES OVERFISHED	1
LESS ROADS TO LAKES	1
TOO MANY ANGLERS	1
CONNECT ROAD AROUND KEN LAKE	1
ROAD FROM MUSKY LAKE TO POND CHURCH RD	1
OPEN K4 RD TO 369 AND MAINTAIN	1
NO GAS MOTORS	1
MORE REGULATIONS ON BOATS IN THE LAKES	1
FEWER AREAS TO FISH BUT PERMIT PRICE HAS STAYED SAME	1
LET US FISH ARMSTRONG COAL	1
LIMIT ON FISH TO KEEP	1
LOWER PERMIT PRICE	1
MANAGEMENT OF FISH LIMITS, ETC	1
USE OUTBOARDS IDLE ONLY ON BIG LAKES	1
MARKED TRAILS	1
CLOSING LAKES FOR A YEAR AT A TIME TO LET BASS GROW	1
STOCK SMB AND STRIPERS	1
MORE BOAT RAMPS ON POND RIVER	1
DIRECTIONS TO LAKES ACCESSIBLE BY FOOT WITH BANK FISHING SITES	1
RUNNING WATER	1
BAIT SHOP	1
MORE AREAS FOR KIDS TO FISH	1

MORE SHADED AREAS	1
LAKES ARE GOING TO GET FISHED OUT	1
IMPROVEMENT IN BG AND CRAPPIE	1
LESS ANGLERS, LARGER VARIETY OF FISH (SMB, TROUT, PIKE, SAUGER, ETC)	1
INFO AVAILABLE ABOUT ACCESS TO PONDS NOT LOCATED RIGHT ON ROAD	1
LMB SLOT LIMIT TO INCREASE NUMBER OF TROPHY BASS	1
KEEP REMAINING LAKES OPEN	1
LEAK REPAIRS	1
MORE PARKING AT NORTH END OF SOUTH LAKE	1
FISH SURVEY ON ISLAND AND SOUTH	1
MORE QUALITY FISH, MAX CREEL LIMITS ENFORCED	1
MORE HYBRID BLUEGILL	1
MORE BAIT FISH RELEASED IN LAKES SO FISH WILL GROW LARGER	1
MORE ROOM FOR BOATS TO DOCK DURING TOURNAMENTS	1
MORE SLOT LIMITS SO FISH GROW TO DECENT SIZE	1
MORE TRAILS	1
MORE ROCK LIKE ISLAND LAKE	1
LOWER PERMIT COST	1
SOME LAKES NEED BASS REMOVED TO PROMOTE BIG BASS	1
NO CREEL LIMIT ON LMB	1
ISLAND AND SOUTH 15" SIZE LIMIT ON LMB	1
TOO MUCH HARVEST ON ISLAND AND SOUTH	1
OPEN BACK UP GIBRALTER AND SOME ON VOGUE THAT THEY LEASED TO HORSEBACK RIDERS	1
OPEN RESTRICTED MILITARY PROPERTY TO PUBLIC	1
OPEN UP MORE ROADS	1
PRIMITIVE CAMP SITES	1
RAMPS TO SMALLER LAKES, PLANT LILLY PADS IN THE LAKES	1
REMOVE BRUSH FROM FISHING AREAS TO KEEP SNAKES AWAY	1
RESTOCK FLAT CREEK BOTTOMS	1
STOP SELLING PROPERTY	1
FERTILIZATION	1
PUT SIZE/CREEL LIMITS ON CRAPPIE	1
FINE PEOPLE WHO BLOCK RAMPS	1
CLOSE LAKES UNTIL FISH HAVE HAD CHANCE TO GROW	1
LAKES ARE OVERFISHED	1
STOCK LARGER FISH	1
LIMIT ANGLERS	1
CLEAN UP TREES/DEBRIS IN LAKES	1
MANY LAKES ARE COMPLETELY EMPTY OF FISH	1
STOCK WALLEYE IN DEEPER LAKES I.E. GOOSE AND ISLAND LAKES	1
STOP SELLING LAND TO COAL MINES	1

TAKE IDLE RESTRICTION OFF REFUGES	1
MORE STRUCTURE IN ISLAND LAKE	1
TRAILS CUT TO SECULDED LAKES	1
USE OF GAS MOTORS ON LARGER LAKES	1
MIN LENGTH LIMITS ON ALL FISH (BG,CRAPPIE)	1
VERY INTERESTED IN THE TROPHY BG/RE LAKES	1
WANT TO FISH LAKES ON PRIVATE GROUND THAT WE NO LONGER LEASE	1
WHICH LAKES ARE STOCKED WITH TROUT?	1

Question 16. List of respondent home county.

County	State	Frequency
ALLEN	KY	1
ANDERSON	KY	1
BARREN	KY	1
BOONE	KY	3
BRECKINRIDGE	KY	7
BULLITT	KY	18
BUTLER	KY	33
CALLOWAY	KY	1
CAMBELL	KY	1
CHRISTIAN	KY	10
CLARK	KY	1
CRITTENDEN	KY	1
DAVIESS	KY	88
EDMONDSON	KY	3
ESTILL	KY	1
FAYETTE	KY	2
FLOYD	KY	1
GRANT	KY	1
GRAYSON	KY	5
HANCOCK	KY	3
HARDIN	KY	13
HARLAN	KY	2
HARRISON	KY	1
HART	KY	7
HENDERSON	KY	11
HOPKINS	KY	60
JACKSON	KY	2
JEFFERSON	KY	42
JESSAMINE	KY	1

JOHNSON	IN	2
LARUE	KY	3
LAUREL	KY	10
LAWRENCE	KY	1
LEWIS	KY	1
LOGAN	KY	11
LYON	KY	2
MADISON	KY	2
MCCREARY	KY	15
MCLEAN	KY	23
MEADE	KY	7
MUHLENBERG	KY	150
NELSON	KY	9
OBION	TN	1
OHIO	KY	163
OLDHAM	KY	4
PERRY	KY	5
PIKE	KY	1
POWELL	KY	2
PULASKI	KY	13
RUSSELL	KY	2
SCOTT	KY	4
SHELBY	KY	1
SIMPSON	KY	3
SPENCER	KY	6
TRIGG	KY	1
UNION	KY	2
WARREN	KY	24
WASHINGTON	KY	3
WAYNE	KY	1
WEBSTER	KY	3
WHITLEY	KY	1

Comments received at the conclusion of the survey.

Comment	Frequency
LOST/SOLD TOO MANY LAKES/PROPERTY	35
KEEP UP THE GOOD WORK	21
BETTER MAPS	14
MORE/BETTER CAMPING AREAS	14
MORE LAW ENFORCEMENT	12

CHEAPER PERMIT	12
MORE/BETTER ROAD/LAKE SIGNS	11
MORE/BETTER/MAINTAINED ROADS	9
USE OF ATVS ON MAIN ROADS AND TRAILS	7
BATHROOMS	5
MORE/BETTER BOAT RAMPS/ACCESS	3
AREA IS OVERFISHED	3
MORE/BETTER BANK ACCESS	2
MORE SHOOTING RANGES	2
PERMIT PRICE IS FAIR	2
ALL IMPROVEMENTS ARE ON SINCLAIR, ALL LICENSES ARE WAY TOO EXPENSIVE	1
ALLOW HORSEBACK RIDING OFF OF ROADS	1
USING MOTOR ABOVE IDLE SPEED ON SOUTH LAKE	1
BUY ISLAND AND SOUTH LAKES SO PEABODY DOESN'T SELL THEM	1
KIDS SHOULDN'T HAVE TO HAVE A PERMIT WHEN CAMPING	1
KEEP PEOPLE IN VEHICLES OFF SOUTH LAKE LEVEE	1
MORE FOOD PLOTS FOR DEER	1
SEE A LOT OF SIGNS OF POT GROWING	1
VEHICLES DRIVE TOO FAST	1
WANT SOUTH LAKE OPEN FOR WINTER CRAPPIE FISHING, CLOSED DEC 15 TO MARCH 1	1
MORE TROPHY SIZE LMB	1
BETTER CONTROL OF LITTERING AROUND BOAT LAUNCH AREAS	1
STOCK MORE BLUEGILL AND REDEAR	1
MORE COURTEOUS GW	1
FISHING IS NO LONGER QUALITY AT KEN LAKE	1
BUY MORE LAND FOR FISHING, FOOT TRAVEL FOR PEOPLE WITH HEALTH PROBLEMS IS OUT OF QUESTION	1
CUT BRUSH AND TREES FROM TOP DOWN	1
DO SOMETHING ABOUT DUMPING OF GARBAGE AND TIRES IN LAKES	1
FISHING IS BETTER FROM A BOAT	1
FISHING QUALITY HAS DECREASED DRASTICALLY IN LAST FEW YEARS	1
PEOPLE MAKING METH MAKING IT DANGEROUS TO FISH	1
GREAT PLACE JUST NEEDS MORE MAINTENANCE AND MORE ACCESS	1
BASS TOURNAMENTS ARE CAUSING TOO MUCH FISHING PRESSURE MAKING CATCHING LARGE BASS LESS OFTEN	1
LIFTING SIZE LIMIT ON ISLAND AND SOUTH WAS A MISTAKE	1
HIKING TRAILS AND VIEWING PLATFORMS, MORE HANDICAPPED ACCESS	1
I ENJOY FISHING PWMA LAKES, HOPE TO SEE SOME IMPROVEMENTS IN THE FUTURE. I ALSO LIKE TO CAMP AT PEABODY	1
I HAVE SEEN PEOPLE WITH 100+ BG/RE IN ONE DAY AND COME BACK THE NEXT DAY AND TAKE 100+ MORE	1
I HOPE WMA STAYS OPEN IT IS ONE OF MY FAVORITE PLACES. FISH MOSTLY FROM KAYAK	1

AND LIKE FISHING REMOTE AREAS.	
I LOVE CAMPING AND FISHING PWMA BUT I WORRY ABOUT WHAT OTHER PEOPLE MAY DO	1
I PERSONALLY DON'T LIKE THE DECISION TO LET BOATS IDLE SPEED WITH GAS MOTORS ON THE LAKES	1
I WOULD FISH IF I KNEW WHICH LAKES WERE WATERFOWL REFUGES AND WHICH WERE OPEN	1
IMPROVED PARKING AREAS	1
IT IS A GOOD FISHING AREA, WOULD BE NICE IF GRASS WAS KEPT DOWN AND MORE QUALITY SIZE BASS	1
KEEP CAMPERS OFF RAMPS	1
LOTS OF PEOPLE JUST DRIVING AROUND DRINKING AND A COUPLE DRUG DEALS, I CARRY PISTOL WITH ME NOW.	1
MORE ACCESS TO RIVER	1
MORE TRASH CANS THAT ARE EMPTIED REGULARLY	1
KEEP AREAS CLEANER, NO GATES	1
MORE HANDICAPPED ACCESS FOR FISHING WOULD BE GOOD	1
MORE TALL TREES TO CAMP UNDER, TICK AND MOSQUITO ERADICATION	1
FISHING IS BETTER THAN HUNTING ON PWMA, WOULD LIKE TO SEE PEABODY GO TO QUOTA HUNT FOR DEER	1
MORE WALK-IN AREAS	1
MOWING SHOOTING LANES THROUGH BIG FIELDS FOR RABBIT HUNTERS	1
NEED A PLACE TO DISPOSE OF TRASH	1
NOT FAIR THAT PERMIT COST IS SAME AND WE CANT FISH PLACES WE USED TO	1
NOT KID FRIENDLY	1
NOT MANY WAYS TO GET TO GREEN RIVER, ALL EMPHASIS ON GAME FISH NOT ON CATFISH	1
OHIO COUNTY IS TOO CROWDED, MUHLENBERG IS LESS AND FISHING IS BETTER	1
OHIO COUNTY RESIDENTS SHOULD NOT HAVE TO BUY PWMA PERMIT	1
PARKING IS TIGHT ON SOUTH LAKE RAMP	1
PUT HIDDEN CAMERAS NEAR LANDFILL RD TO RECORD ILLEGAL DUMPING	1
POST SIGNS WITH F&W CONTACT NUMBERS TO REPORT ABUSE	1
LOCALS USE ATVS	1
PEABODY WEBSITE OR CHATROOM TO FACILITATE COMMUNICATION WITH F&W AND ANGLERS	1
PEOPLE ARE HAVING TOURNAMENTS WITHOUT GETTING PAPERWORK/APPROVAL	1
PLAY AREA FOR CHILDREN	1
ABILITY TO JUG FISH BIGGER LAKES	1
SIZE LIMIT ON LMB NEEDS TO BE LOWERED TO 10".	1
SPRAY AND BURN AROUND LAKES TO CUT DOWN ON VEG AND POISON IVY	1
STATE FISHING LIC AND PWMA PERMIT IS A LOT TO PAY FOR FISHING, SHOULD ONLY HAVE TO BUY PWMA PERMIT TO FISH THERE, NOT STATE FISH LICENSE	1
STOCK SMALL LAKES	1

STOP LITTERING	1
THE TWO LAKES I FISH HAVE IN THE PAST TWO YEARS BEEN OVER RUN WITH GRASS/ALGAE	1
TOURNAMENT FISHERMEN ARE RELEASING FISH CAUGHT IN ISLAND AND SOUTH IN NEARBY LAKES	1
TROUT PROGRAM IS GREAT	1
TURTLE AND SNAKE CONTROL, LOVE THE TROUT WOULD LIKE TO SEE MORE	1
WANT ATV PERMITS, CAMPING PERMITS, LAND IS NOT VERY EASY TO USE, CONSERVATION OFFICERS ARE RUDE AND SMART MOUTHED	1
WANT COURTESY DOCKS AT ALL BOAT RAMPS	1
WANT MORE DETAILED INFO ON FISHING OPPORTUNITIES	1
WANT MORE INFO ON HOW TO FISH FOR CERTAIN SPECIES AND WHICH LAKES ARE GOOD FOR WHAT SPECIES	1
WANT PERMISSION TO TAKE SCRAP METAL OFF PWMA, CAMP SITES WITH GRILLS	1
WHERE ARE MUSKY STOCKED ON PWMA	1
WORRY ABOUT DRUG GROWING AND METH LABS AND POACHING	1
WOULD IT BE POSSIBLE TO SET UP SOME VOLUNTEER DAYS TO CLEAN UP/MOW AROUND LAKES TO INCREASE BANK ACCESS? I WOULD BE PROUD TO HELP	1
WOULD LIKE TO KNOW WHICH LAKES ARE STOCKED	1
WOULD LIKE TO SEE NIGHT ACCESS TO TVA AREAS FOR GREEN RIVER CATFISHING	1