Beaver Damage Management in North Carolina

Thirty-Third Summary Report



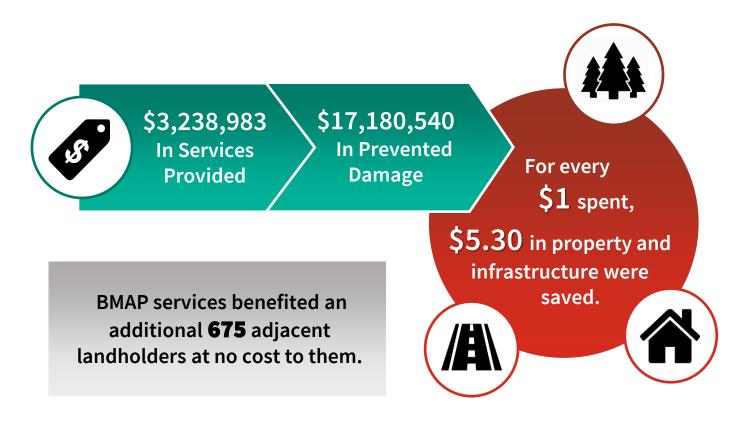
July 1, 2024 through June 30, 2025

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Executive Summary







\$25 per site visit \$150 per dam removed

Beaver Management Assistance Program

Background

The North Carolina Beaver Management Assistance Program (BMAP) was created by state legislative action in 1992 with the express purpose of helping manage ever-increasing problems caused by beaver on private and public lands. BMAP was structured to be flexible, fair, and feasible. Since its inception, the program has grown more than tenfold from four participating counties during its pilot version to 58 participating in 2024-2025. Due to practical and ecological considerations, the program's goal remains to address specific beaver damage problems rather than to eliminate beaver from the state. Beaver are present in all 100 North Carolina counties. Their population is considered stable or slightly increasing and is estimated to be around 1,000,000. BMAP-related removals account for less than 0.5% of the total beaver population annually and around 20% of the total known annual beaver harvest by regulated trapping. While this level of harvest has little to no effect on the beaver population, it is impactful in resolving damage issues for individual landholders. Rather than focusing on removing beaver, BMAP instead prioritizes activities that 1), remove threats to public health and safety and 2), directly assist landholders who are experiencing property damage from beaver.

BMAP is implemented by USDA Wildlife Services (WS) through Cooperative Service Agreements with the NC Department of Transportation (NCDOT), NC Wildlife Resources Commission (NCWRC), participating counties, and private landholders through a cost-share system. The Cooperative Service Agreements between WS, NCDOT, NCWRC, counties, and landholders in this summary report cover activities from July 1, 2024 through June 30, 2025.

Online Resources

Get information about the program at: www.ncwildlife.org/BMAP





Beaver Damage Control Advisory Board

The Beaver Damage Control Advisory Board is composed of representatives from nine State/Federal agencies and non-governmental organizations. It meets annually to review the previous year's accomplishments and to make recommendations for the coming year to the Executive Director of the Wildlife Resources Commission.

Falyn Owens (Chair) NC Wildlife Resources Commission
Tim Sherrill NC Department of Transportation

Michael James NC Association of County Commissioners
Jennifer Roach NC Division of Soil and Water Conservation

Dianne Farrer NC Department of Agriculture and Consumer Services

Barry New NC Forest Service

Anne Coan NC Farm Bureau Federation
Mike Powell NC Forestry Association

Todd Menke USDA APHIS Wildlife Services



Erik Bufmeyer, USDA Wildlife Services – November 15, 2024. A beaver lodge built next to a cabin on a lake in Chatham County. BMAP services removed a beaver dam from the clogged spillway, preventing multiple cabins from being flooded.

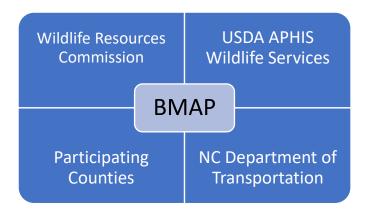


Erik Bufmeyer, USDA Wildlife Services — Dowd Road, Moore County, January 1 and 26, 2025. A beaver dam blocking a drainage ditch was flooding over five acres of longleaf pine timber and backing up water over a quarter mile onto Dowd Road. BMAP services restored normal water drainage, preventing loss of the timber crop and protected the driving public.

Program Structure

BMAP is composed of 4 major entities, each with its own expectations and guidelines.

NC Wildlife Resources Commission (NCWRC) funds beaver damage management activities as part of a cost-share program with participating counties and landholders within those counties. Activities focus on reducing water levels that threaten private roadways, timber, agricultural crops, and general property. Administrative authority for BMAP rests with the NCWRC, but enabling legislation and cooperative agreement allows NCWRC to transfer program implementation to USDA Wildlife Services.



NC Department of Transportation (NCDOT) funds beaver damage management activities along statemaintained road rights-of-way in all 100 counties. Activities aim to reduce flooding that impacts state roads and threatens roadway infrastructure as well as human health and safety.

Individual counties have the option to participate in BMAP at various levels on an annual basis. Counties can opt out or participate at the baseline level, with the option to provide additional funding to support expanded program services based on that county's needs.

USDA Wildlife Services provides at least \$25,000 annually to facilitate program implementation, and its staff conduct all beaver damage management activities.

Funding Sources and Expenditures

Program funding by source and expenditures from July 1, 2024 through June 30, 2025.

	Expenditures ^a by Funding Source ^{b,c}						
Expenditure	NCWRC	NCDOT	Counties (Baseline)	Counties (Additional)	Wildlife Services	Landowner Collections ^d	Total Costs
Personnel Costs	\$277,922	\$827,191	\$228,078	\$717,942	\$0	\$51,083	\$2,102,216
Vehicle Fuel, Maintenance, Repair	\$17,391	\$78,525	\$7,230	\$35,847	\$0	\$916	\$139,909
Other Services (phones, data lines, non-vehicle repairs & maintenance)	\$109	\$47,801	\$31,041	\$21,684	\$25,000	\$0	\$125,635
Supplies (waders, tools, explosives)	\$6,389	\$78,040	\$7,294	\$50,844	\$0	\$6,159	\$148,726
Equipment (traps, laptops, printers)	\$981	\$21,117	\$49	\$19,108	\$0	\$0	\$41,255
Pooled Job Costs	\$33,307	\$115,794	\$30,106	\$92,997	\$0	\$0	\$272,204
Indirect Costs to NC Wildlife Services	\$33,307	\$115,794	\$30,106	\$92,997	\$0	\$6,397	\$278,601
Indirect Costs to APHIS	\$15,594	\$54,213	\$14,096	\$43,539	\$0	\$2,995	\$130,437
Total Spent (e)	\$385,000	\$1,338,475	\$348,000	\$1,074,958	\$25,000	\$67,550	\$3,238,983

(a) Expenditure figures are subject to adjustment.

(b) Funding sources: NCWRC NCDOT 58 Counties (Baseline) Counties (Additional Funding)

\$385,000 \$1,338,475 \$348,000 \$1,074,958

Additional Funding By Source

Bladen \$54,000; Brunswick \$89,669; Columbus Dunn Swamp Drainage \$633; Duplin \$185,000; City of Fayetteville \$37,500; Cumberland \$2,000; Fayetteville PWC \$2,453; Greene \$6,000; Harnett \$5,900; Henderson \$5,000; Johnston \$98,950; Lenoir \$19,000; Robeson \$250,000; Robeson Drainage \$5,853; Sampson \$100,000; Wayne \$200,000; Wilson \$13,000

- (c) USDA Wildlife Services contributed \$25,000 to fund the BMAP in FY 2024/2025. Wildlife Services provided additional indirect support to administer the program that is not included in the \$25,000.
- (d) BMAP cost-share collections by Wildlife Services from landowners, municipalities, and other sources. As of July 1, 2025, \$3,950 in outstanding landowner cost-share invoices were over 90 days past due.
- (e) All funds provided for the program by each funding source were spent in full.

Program Statistics in Summary

The Cooperative Service Agreements between WS, NCDOT, NCWRC, and participating counties resulted in a total of 1,342 projects worked and 2,107 dams removed from July 1, 2024 through June 30, 2025. An additional 675 adjacent landholders benefitted from BMAP services at no cost to them.

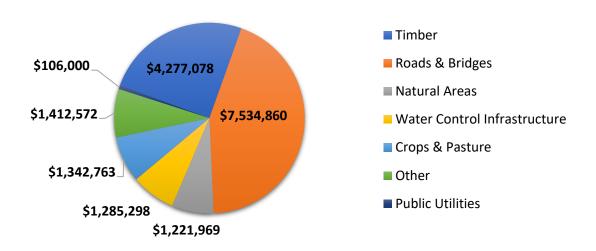
Projects Worked	Dams Removed w/Explosives	Dams Removed Manually	Beaver Removed
1,342	670	1,437	3,958

Economic Impact of BMAP

USDA Wildlife Services staff and cooperators reported that BMAP services prevented the impending loss or repair expenditures of an estimated \$17,180,540 in resources including roads, bridges, timber and other crops, railroad trestles, dams/ditches, public sewer systems and water treatment facilities, landscape plantings, homes, airport runways, boat docks, and golf courses. Comparing BMAP expenditures to savings, the estimated cost benefit ratio was 1 to 5.30. In other words, for every \$1.00 spent, \$5.30 in resources were saved.

Notably, several benefits of BMAP services are not included in this calculation. Benefits reported by the NCDOT do not include projected future savings, which can be significant; BMAP services are often provided proactively before major storm events to reduce the extent of resultant flooding. The cost-benefit ratio also does not include benefits of educational activities such as training landowners to address their own beaver damage problems. It also does not include any state revenue generated from taxes on timber sales that otherwise would have been lost had beaver destroyed the timber, or indirect losses due to agriculture from farmers prevented from planting or using land that is flooded or saturated.

Resources Protected



In the chart above, **Natural Areas** include undeveloped areas that are not considered "working lands" (e.g., wetlands and restoration sites). **Water Control Infrastructure** includes dams, dikes, ditches, and drainage systems. **Other** includes resources labeled as general property, buildings, golf courses, landfill or equipment.

Beaver Damage Examples

Beaver damage can take many forms, but the situations depicted below are typical.



Andrew Jolin, USDA Wildlife Services — Tryon Park, Gaston County, February 26 and March 11, 2025. A beaver dam in Little Beaverdam Creek was flooding a county-owned disc golf course and a large tract of hardwood timber. BMAP services restored normal drainage, prevented further damage to the disc golf course within the 72-acre public park, and saved the hardwood forest.



Andrew Jolin, USDA Wildlife Services — Bradbury Court, Gastonia, Gaston County, December 23, 2024 and February 6, 2025. A large beaver dam blocking a culvert caused multiple septic systems in the neighborhood to flood. BMAP services restored normal water drainage, preventing further damage to the septic systems, and preventing soil erosion along the drainage ditch.



Matt Cribb/Bo Benton, USDA Wildlife Services — Mill Run Road, Robeson County, February 25 and July 15, 2025. A large beaver dam built in a drainage ditch was flooding a new timber planting. BMAP services restored normal water drainage, prevented further damage and saved the newly-planted trees.



Andrew Jolin, USDA Wildlife Services — Gaston County Water and Sewer Department in Gastonia, February 18 and April 8, 2025. A large beaver dam caused Duharts Creek to overflow, flooding county-managed water and sewer lines. BMAP services restored normal water drainage and prevented damage to the water and sewer lines.

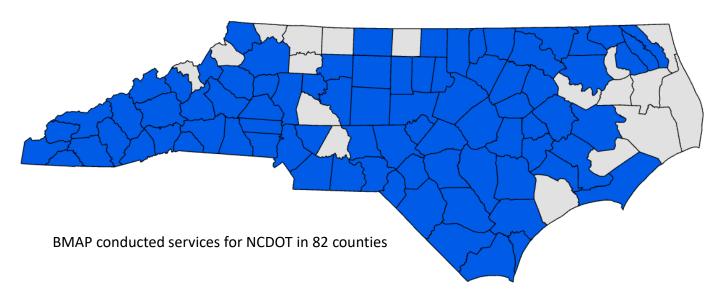


Andrew Jolin, USDA Wildlife Services — Beck Road, Union County, May 7 and 16, 2025. A large beaver dam built across a drainage ditch was flooding a large wetland mitigation site and impacting restoration efforts near Wadesboro. BMAP services restored normal water drainage, preventing flooding on the road and further damage to the wetland mitigation site.

Program Statistics by Funding Source

NC Department of Transportation

Beaver management services to the North Carolina Department of Transportation (NCDOT) were available in all 100 counties regardless of a county's participation in the program. Due to health and safety concerns along roadways, NCDOT agreements continued to receive priority, but response to these projects was balanced against any backlogged requests on public and private lands. NCDOT received an average of 8 completed agreements per county where NCDOT work was done. Services were provided based on demand and the program's ability to meet those demands at current funding levels. Counties that did not participate in BMAP during this fiscal year received services on NCDOT rights-of-way where requested. There were no additional cost-share charges to the NCDOT relating to beaver damage management along state-owned highways, roads, and bridges throughout North Carolina. When services were conducted on adjacent properties to resolve problems affecting NCDOT rights-of-way, those landholders were not charged.



BMAP provided services for NCDOT property in 82 of North Carolina's 100 counties. A total of 677 completed projects resulted in the removal of 1,562 beavers and 910 dams. In addition, WS worked with 548 adjacent landholders who benefitted from these services at no cost to them.

Projects Worked	Dams Removed w/Explosives	Dams Removed Manually	Beaver Removed
677	204	706	1,562



Austin Barnes, USDA Wildlife Services — Craft Road, Greene County, August 19, 2024. A beaver dam blocked the road culvert, flooding the road and creating unsafe driving conditions. BMAP services restored normal water drainage, protecting motorists and preventing damage to the road infrastructure, as well as benefitting adjacent landholders.



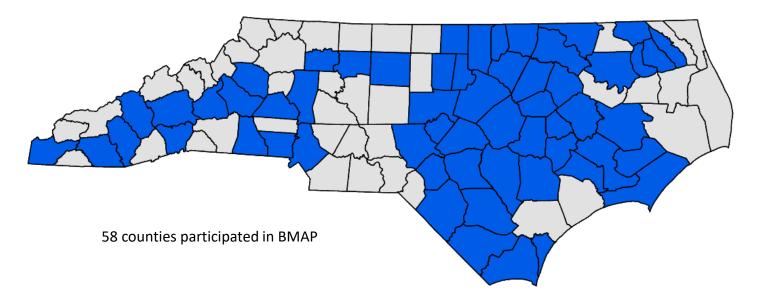
Austin Barnes, USDA Wildlife Services — Howell Swamp Church Road, Greene County, August 9, 2024. A beaver dam blocking the road culvert caused flooding on the road, threatening the driving public. BMAP professionals worked to remove the dam before Tropical Storm Debby arrived, preventing damage to the road infrastructure and benefitting adjacent landholders.



Andrew Jolin, USDA Wildlife Services — Landsford Road, Union County, August 21 and October 8, 2024. A beaver dam in a NCDOT culvert flooded a farmer's soybean field. BMAP services restored normal water drainage, preventing crop loss and allowing the farmer to harvest the soybeans, as well as preventing damage to the road infrastructure.

NC Wildlife Resources Commission

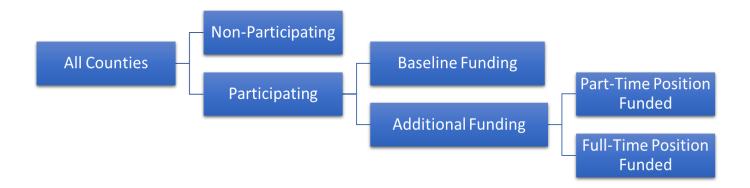
The North Carolina Wildlife Resources Commission (NCWRC) funds beaver damage management as part of a cost-share program with participating counties and landholders within those counties. County participation is required before any direct assistance is provided to landholders. Participation in the program is open to all North Carolina counties. Participating counties received 60–84 site visits each, on average (29-43 DOT, 31-41 non-DOT). Services in each county were provided based on demand and the program's ability to meet those demands at current funding levels.



Fifty-eight participating counties received assistance through funding provided by NCWRC, county participation fees, and individual landholders. A total of 200 projects were completed and resulted in the removal of 574 beaver and 224 dams. In addition, 38 adjacent landholders benefitted from these services at no cost to them.

Projects Worked	Dams Removed w/Explosives	Dams Removed Manually	Beaver Removed
200	49	175	574

Individual Counties



All 100 counties in North Carolina receive a written invitation to participate in BMAP annually and must opt in to the program each year. Counties can choose several levels at which to participate, from baseline coverage to funding full-time, dedicated BMAP professional(s) in that county (see above).

Non-Participating Counties – Landholders in non-participating counties have access to beaver damage management services through USDA Wildlife Services on request. They are not eligible to receive services at BMAP's cost-share rate and must pay the full market price for services rendered.

Participating Counties at Baseline Funding – In FY 2024-25, counties could opt in to BMAP for a \$6,000 fee. A county's participation fee is combined with funding provided by WRC to offset the cost of beaver damage control services to landholders in that county. Landholders in participating counties were eligible for services at a reduced cost-share rate of \$25 per site visit and \$150 per large dam removed. The 58 counties below participated at baseline level during FY 2024-25.

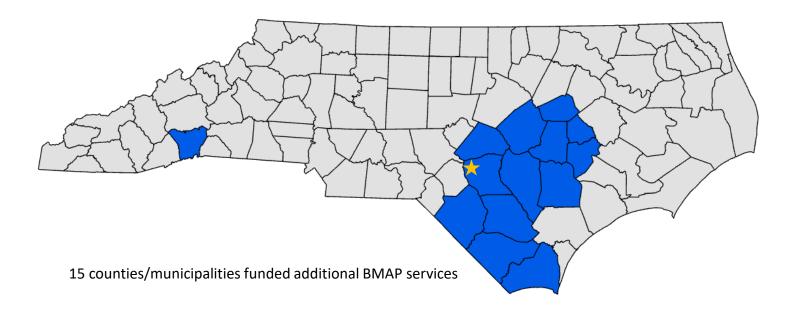
Beaufort	Cherokee	Franklin	Hoke	Moore	Robeson
Bertie	Chowan	Gaston	Iredell	Nash	Sampson
Bladen	Cleveland	Gates	Jackson	New Hanover	Vance
Brunswick	Columbus	Granville	Johnston	Northampton	Wake
Buncombe	Craven	Greene	Jones	Orange	Warren
Burke	Cumberland	Guilford	Lee	Pamlico	Wayne
Caldwell	Duplin	Halifax	Lenoir	Pasquotank	Wilson
Carteret	Durham	Harnett	Macon	Perquimans	Yadkin
Catawba	Edgecombe	Haywood	McDowell	Person	
Chatham	Forsyth	Henderson	Mecklenburg	Pitt	

Services Provided Through Additional Funding

Participating counties occasionally request expanded BMAP services in addition to those received under the cost-share program at baseline. Generally, requests for additional assistance require hiring additional experienced personnel, which is inherently difficult, especially if such a request is for seasonal or less than full time work. If USDA Wildlife Services is able to accommodate such requests, any additional work provided to landholders in the county follows BMAP policies and procedures. Cost share fees paid by landholders are used to support the overall BMAP. Any county requesting additional assistance pays full program costs (labor, vehicle usage, supplies and equipment, etc.). In addition, both landholders and the NCDOT will receive services. To receive additional services, a county must enter into a cooperative service agreement with USDA Wildlife Services with payment going directly to USDA Wildlife Services.

Participating counties with additional funding – 14 counties and 1 city opted to provide funding beyond the baseline \$6,000 participation fee, totaling \$1,074,958 worth of additional service to those areas. These counties/city provided this additional funding directly to USDA Wildlife Services to cover the remaining expenses of a part-time, full-time or multiple full-time beaver damage management specialists. Counties/cities that participated at one of these levels included:

Multiple full-time personnel – Duplin (\$185,000), Robeson (\$255,853), and Wayne (\$200,000) Single full-time personnel –Brunswick (\$89,669), Johnston (\$98,950), and Sampson (\$100,000) Part-time personnel – Bladen (\$54,000), City of Fayetteville (\$39,953), Columbus (\$633), Cumberland (\$2,000), Greene (\$6,000), Harnett (\$5,900), Henderson (\$5,000), Lenoir (\$19,000), and Wilson (\$13,000)



A total of 465 projects resulted in the removal of 1,822 beaver and 973 dams. In addition, USDA Wildlife Services worked with 89 adjacent landholders who benefitted from these services at no cost to them.

Projects Worked	Dams Removed w/Explosives	Dams Removed Manually	Beaver Removed
465	417	556	1,822



Falyn Owens, NCWRC wildlife extension biologist and chair of the NC Beaver Damage Control Advisory Board, gives a presentation on beaver ecology and management for the Durham County Library. Photo by Caitlin Brett (NCWRC).

Educational Activities

Advice and information (technical assistance) were provided to landholders statewide through on-site visits, written/telephone consultations, and educational programs and exhibits. USDA Wildlife Services distributed thousands of leaflets to landholders and the general public on how best to address beaver damage on their property. BMAP strives to educate landholders and others about both positive and negative aspects of beaver activity so they can make informed decisions about management options on their land. If landholders decide to address a beaver damage problem themselves, whether by lethal or non-lethal means, they are always given the option to do so with direction and training provided by USDA Wildlife Services at no cost.

State Fiscal Year 2025-26

BMAP continues to be popular among landholders, counties, municipalities, businesses, and NCDOT. Landholders who request BMAP services are often faced with significant losses as a result of beaver activity. The severity of these losses is evident by sustained demand and support for the program. As in previous years, BMAP participants continued to show little interest in conducting damage management activities themselves, which is most likely due to lack of ability and/or time. USDA Wildlife Services specialists will, however, continue to make concerted efforts to encourage individuals to solve their own problems through on-site training and damage management workshops.

Estimated Funding Sources for State Fiscal Year 2025-26

NCDOT = \$1,700,000 NCWRC = \$385,000

56 Participating Counties = \$336,000 USDA Wildlife Services = \$25,000

Private Cost-share = \$70,000 Additional County Funding = \$1,200,000

Total = \$3,716,000

Obtaining Services

How Counties Participate

All counties were eligible to participate in FY 2024-2025 by contributing a \$6,000 participation fee. Individuals residing in these counties could obtain assistance with beaver damage by contacting their county's designated BMAP liaison (typically the county Cooperative Extension or Soil and Water Conservation District office). Statewide assistance with beaver damage problems was also provided to the NCDOT. All requests for assistance received an immediate response, but the start of direct assistance activities varied based on the workload of USDA Wildlife Services personnel at the time of the request.

Cost Share

Landowners in participating counties paid a small cost-share fee for services. There was no charge for time spent discussing the program or signing paperwork. During this assessment, USDA Wildlife Services personnel discuss both the positive and negative impacts of beaver with the landholder and recommend the best course of action. If damage management activities are recommended, time and costs are estimated before work begins. Landholders wishing to conduct their own work were provided individualized training at no cost. The cost-share fee for individuals in participating counties was \$25 for each visit to their property, with no charge for travel time. There was also a \$150 charge per large dam removal. USDA Wildlife Services personnel average about 10 visits over a 30-day period to resolve a beaver problem. After 15 visits to a landholder's property in any one year, costs to the landholder increase to the full market value of beaver removal services.

Assistance Priorities

Requests for assistance are handled on a first-come, first-served basis with top priority given to projects that address threats to public health and safety, particularly along highway rights-of-way and county-owned property. Work for individual landholders is next, followed by work for soil and water conservation districts, municipalities, corporate landholders, and others.

Contact Us

For additional information, contact:

USDA Wildlife Services 6213-E Angus Drive Raleigh, NC 27617 1-866-487-3297

NC Wildlife Resources Commission Wildlife Management Division 1722 Varsity Drive Raleigh, NC 27699 1-919-707-0050 Erik Bufmeyer, USDA Wildlife Services — Moore County, November 15, 2024. Beaver-caused flooding on a shared private road, preventing access to a nursery and railroad tracks for multiple landowners.



Appendix: 2024-25 Guide for Obtaining Services

NC Beaver Management Assistance Program OBTAINING SERVICES

Since beavers were successfully reintroduced to North Carolina in 1939, this native species has thrived, benefitting people and wildlife by creating wetland habitat, reducing erosion, and improving water quality across the state. However, damage to property caused by beaver activity can be substantial and costly. The Beaver Management Assistance Program (BMAP) aims to help manage beaver-related problems on private and public lands. Because of practical and ecological considerations, the program is not designed to eradicate beavers; rather its focus is to assist the NC Department of Transportation, local governments, and private landholders in addressing specific beaver damage issues.



BMAP specialists work to educate customers about a variety of beaver management options, including exclusion, pond levelers, and other nonlethal techniques. When deemed necessary, they will remove beavers and/or dams using humane and environmentally acceptable techniques.

In NC fiscal year 2022-2023, BMAP services prevented the loss or repair costs of an estimated \$18 million in roads, bridges, timber and other agricultural crops, railroad trestles, dams, sewer systems, water treatment facilities, landscaping, homes, airport runways, and golf courses. Comparing the costs of BMAP to its savings, for every \$1.00 spent, \$7.11 in resources were saved.

County Cost-Share

Counties can opt into BMAP each year by contributing \$6,000, which grants access to additional funding provided by the NC Wildlife Resources Commission. Landholders in participating counties can reach out to their county's BMAP contact to request assistance (see opposite page).



Landholder Cost-Share

Landholders pay the following cost-share fees for services:

- \$25 per site visit
- \$150 per dam removed

Initial damage assessments are provided at no charge. Services average 10 site visits over a 30-day period to resolve the problem. After 15 site visits, costs to the landholder increase to the full market value of beaver management services.

Landholders who are willing to manage beavers themselves are provided individual training at no cost.

Service Priorities

Requests for assistance are handled on a first-come, first-served basis. However, projects that address threats to public health and safety receive top priority.

Updated July 2, 2024

BMAP County Contacts: July 1, 2024 - June 30, 2025

The following contacts belong to designated county offices such as Soil & Water Conservation, Cooperative Extension Service, Stormwater Management, etc.

Extension con	noo, otominator i lanage	, 0.00		-	
Beaufort	252-946-4989	Franklin	919-496-3344	Moore	910-947-5183 x3
Bertie	252-794-5317	Gaston	704-922-2152	Nash	252-459-4116 x3
Bladen	910-862-3179 x3	Gates	252-357-1400	New Hanover	910-798-7103
Brunswick	910-253-2507	Granville	919-603-1350	Northampton	252-534-2711
Buncombe	828-250-4788	Greene	252-747-3705 x3	Orange	919-245-2514
Burke	828-764-9050	Guilford	336-641-2440	Pamlico	252-745-5064 x3
Caldwell	828-572-4535	Halifax	252-583-5161	Pasquotank	252-338-0933
Carteret	252-222-6360	Harnett	910-893-7584	Perquimans	252-312-9246
Catawba	828-465-8950	Haywood	828-452-2741 x3	Person	336-330-2335
Chatham	919-542-8228	Henderson	828-694-6627	Pitt	252-902-1746
Cherokee	828-837-6417 x3	Hoke	910-875-9044	Robeson	910-671-3024
Chowan	252-312-9246	Iredell	704-873-6761	Sampson	910-592-7161
Cleveland	704-482-4365 Alt. 704-471-0235 x3	Jackson	828-586-4009	Vance	252-438-8188
Columbus	910-642-2196 x3	Johnston	919-934-7156 x3	Wake	919-250-1050
Craven	252-633-0397	Jones	252-448-2341 x3	Warren	252-257-3640
Cumberland	910-321-6860	Lee	919-775-5624	Wayne	919-734-5281 x3
Duplin	910-296-2120 x3	Lenoir	252-526-9799 x3	Wilson	252-237-5147 x3
Durham	919-560-0558	Macon	828-349-2044	Yadkin	336-466-1003
Edgecombe	252-823-8187 x3258	McDowell	828-652-4434		
Forsyth	336-703-6452	Mecklenburg	980-721-3760		





Additional Information

Learn more about the program at www.ncwildlife.org/BMAP

Statewide Contacts

USDA Wildlife Services 6213-E Angus Drive, Raleigh, NC 27617 866-487-3297 todd.a.menke@usda.gov NC Wildlife Resources Commission 1751 Varsity Drive, Raleigh, NC 27699 919-616-2208 falyn.owens@ncwildlife.org

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