

Educating Alabama's Deer Hunters on CWD



Celebrating Alabama's Progress

Certified Public Manager® Program
CPM Solutions Alabama 2023



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The research, findings, and recommendations presented in this white paper do not represent the views of any agency or organization, but rather the collective educational research and analysis from the above diverse group of participants in the Certified Public Manager® Training Program.

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Introduction and Project Statement

According to The Nature Conservancy, Alabama is the 4th most biologically diverse state in the United States. Of the many species of wildlife that can be found in Alabama, white-tailed deer are among the most recognized. Outdoor Alabama says an estimated 2,000 deer existed in the entire state of Alabama in the early 1900s. Due to repopulation efforts by the state, this number has grown exponentially. The ADCNR estimated the population in 2000 to be over 1.75 million (Cook, 2023). There are many different threats to the deer population, including illnesses and diseases. Chronic Wasting Disease (CWD) is the most recent illness that affects deer in Alabama.

The *Educating Alabama's Deer Hunters on CWD* team has completed research and interviews to focus on the following topics:

- Identify and summarize the economic impact and benefits of deer hunting in Alabama.
- Define Chronic Wasting Disease (CWD), provide a background for its emergence, and the negative impact it has had on deer hunting in other states and Alabama.
- Identify and assess outreach strategies Alabama has implemented that educate citizens on the danger of CWD and preventative measures to reduce the spread of CWD to the deer population.
- Identify and assess outreach strategies other selected states have implemented that educate citizens on the danger of CWD and preventative measures to reduce the spread of CWD to the deer population.
- Offer research-based recommendations to strengthen community outreach and education initiatives that encourage citizens to partner together in preventing the spread of CWD.

Hunting in Alabama

Even if you are not familiar with the State of Alabama, it would not take long to realize the importance of not only the agricultural industry but also the importance of game hunting in

Alabama. Recently, a small grass-roots group of Alabama residents decided to form “Hunting Works for Alabama”. Their goal was to inform state residents and legislators of the importance of hunting in Alabama from a revenue perspective. According to their research, hunters spend roughly 1.8 billion dollars annually in the state of Alabama (Roney, 2018). This amount is generated from hunting licenses, taxes, hunting-related equipment, and travel expenses such as food and lodging. According to their numbers, over 44,000 non-residents travel to Alabama every year to hunt wild game (Ranier, 2017).

To put some of these numbers in perspective, Montgomery-based Southeast Research, Inc. determined that in 2018, the spending of hunters/anglers generated some astonishing benefits for the State of Alabama in terms of revenue and employment. They determined that in 2018:

- The amount spent annually by the 535,000 hunters and 683,000 anglers in Alabama supports 73,553 jobs and provides \$1.1 billion in salaries and wages.
- Hunting and Fishing generated roughly \$185 million in state and local taxes.
- Hunting and Fishing contributed \$84 million to the Alabama Education Trust Fund (AON Staff, 2018).

While these numbers are impressive, Southeast Research Inc. went a step further by researching how hunting impacts the rural area of South Alabama commonly known as the “Black Belt”. This area consists of 23 counties that contain some of the poorest counties in Alabama with little to no job opportunities. However, the Black Belt is known for its excellent hunting and outdoor benefits. In 2018, over 40 percent of hunters focused their hunting in the Black Belt region. This is quite substantial when you consider the Black Belt composes less than one-third of Alabama’s land mass. To put this into perspective from an economic impact:

- In 2018, sportsmen spent over \$364 million in the Black Belt region which provided over 24,000 jobs for the area.
- Another \$540 million was spent on resident and non-resident hunting licenses in the Black Belt region in 2018.
- \$1.4 million in lodging tax was collected within the Black Belt region in 2018.

It is difficult to determine what percentage of that \$1.8 billion is attributed to only deer hunting, but any avid outdoorsman will tell you they spend most of their time and money on deer hunting. Traditionally, deer hunting is a skill passed down from generation to generation for those born and raised in Alabama. Growing up, it is considered a “rite of passage” when young kids harvest their first white-tailed deer. As time goes on, these young kids grow into adults and continue this cycle of the strong economic impact of hunting in Alabama.

To maintain this substantial revenue stream, we must do everything we can to maintain and preserve Alabama’s treasure of native wildlife. This can be accomplished by ensuring our native wildlife’s overall health is monitored to prevent any situation that can negatively impact them. This is especially important with our white-tailed deer population since they create such a strong economic impact throughout Alabama.

Chronic Wasting Disease

Chronic Wasting Disease (CWD) is a contagious, prion (neurological) disease that affects deer, elk, moose, and similar species. This disease was first recognized in Colorado in 1967. The Centers for Disease Control and Prevention (CDC) states as of March 2023, CWD has been reported in at least 29 states in the continental United States, as well as two provinces in Canada (CDC, 2018). In June 2023, the Florida Fish & Wildlife Commission reported their first confirmed CWD case in a white-tailed deer (Parrish, 2018). In the timeline on the next page, you can see how CWD spread through the United States until 2016. In addition, CWD has been reported in reindeer and moose in Norway, Finland, Sweden, and South Korea.

The infected animal may not show signs of infection for over a year after contracting the disease. Symptoms include drastic weight loss (wasting), stumbling, and other neurologic symptoms that lead to the death of the animal. Once an animal contracts this disease there is no cure, vaccine, or treatments available. Prion diseases or transmissible spongiform encephalopathies (TSEs) affect both humans and animals. According to the United States Department of Agriculture (USDA), TSEs include several different diseases that affect animals or humans including bovine spongiform encephalopathy (BSE or “mad cow”) in cattle, scrapie in sheep and goats, Creutzfeldt-

1967	Wasting syndrome is observed in captive mule deer at the Colorado State University wildlife research facility in west Fort Collins.
1975-1981	Wasting syndrome is observed in Toronto Zoo mule deer transferred from the Denver Zoo.
1979	Recognized in captive mule deer at Wyoming wildlife research facility.
1981	Detected in wild elk in Colorado.
1985	Detected in wild mule deer in Colorado and Wyoming.
1996	Detected in a captive elk farm in Saskatchewan; 38 other linked farms eventually found positive.
1997	Detected in captive elk facilities in South Dakota.
1998	Detected in captive elk facilities in Montana and Oklahoma.
1999	World Health Organization indicates no evidence CWD is transmissible to humans but advises that exposure should be avoided.
2000	Detected in wild mule deer in Nebraska and Saskatchewan.
2002	Colorado establishes guidelines to minimize transport of high-risk carcass materials. First International CWD Symposium is held in Denver.
2002	Detected in captive elk in Minnesota, wild and captive white-tailed deer in Wisconsin and Illinois, mule deer in New Mexico and elk in South Dakota.
2003	Detected in wild mule deer in Utah.
2004	Detected in wild elk in New Mexico.
2005	Detected in moose in Colorado.
2008	Research indicates CWD may be a plausible explanation for local deer population declines in Colorado.
2010	Detected in captive white-tailed deer in Missouri and wild white-tailed deer in North Dakota and Virginia.
2016	Detected in wild elk and white-tailed deer in Arkansas and wild reindeer in Norway.

Jacob disease (CJD), and Gerstmann-Straussler-Scheinker syndrome in humans (APHIS, 2023). The USDA website also states, “Unlike other infectious diseases, TSEs are not caused by bacteria or viruses, but rather by a naturally occurring protein, that when folded incorrectly, becomes both infectious and deadly. The prion protein in its normal state is thought to have a role in functions such as cell signaling and neuroprotection. It is still unclear what initially causes the normal-shaped protein to misfold into the infectious form. Once misfolded, the infectious prion proteins continue to convert more and more normal prion proteins to the misfolded form. Misfolding of prion proteins in the brain leads to the death of neurons (brain cells) resulting in dysfunction in the body, ultimately causing death. The incubation period can be long (several months to years) depending on species and genetic factors, and infected animals are in good

body condition until the end stages of the disease, making them difficult to distinguish from healthy animals.”

According to the CDC, scientists believe CWD proteins (prions) likely spread between animals through body fluids like feces, saliva, blood, or urine, either through direct contact or indirectly through environmental contamination of soil, food, or water. For this reason, experts believe CWD can remain in the environment for an extended period, so other animals could contract this disease from the soil, plants, etc. even after an infected animal has died (APHIS, 2023).

As of today, there are no reported cases of CWD infection in humans. However, some studies show CWD is a risk to certain types of non-human primates that eat infected meat or encounter CWD-infected animals’ bodily fluids. This raises concerns for potential transmissibility to humans as zoonotic, yet information is limited. Because of this, it is suggested by the CDC to test the animal before consumption. If the animal tests positive for CWD, it is recommended to not consume the meat from that animal.

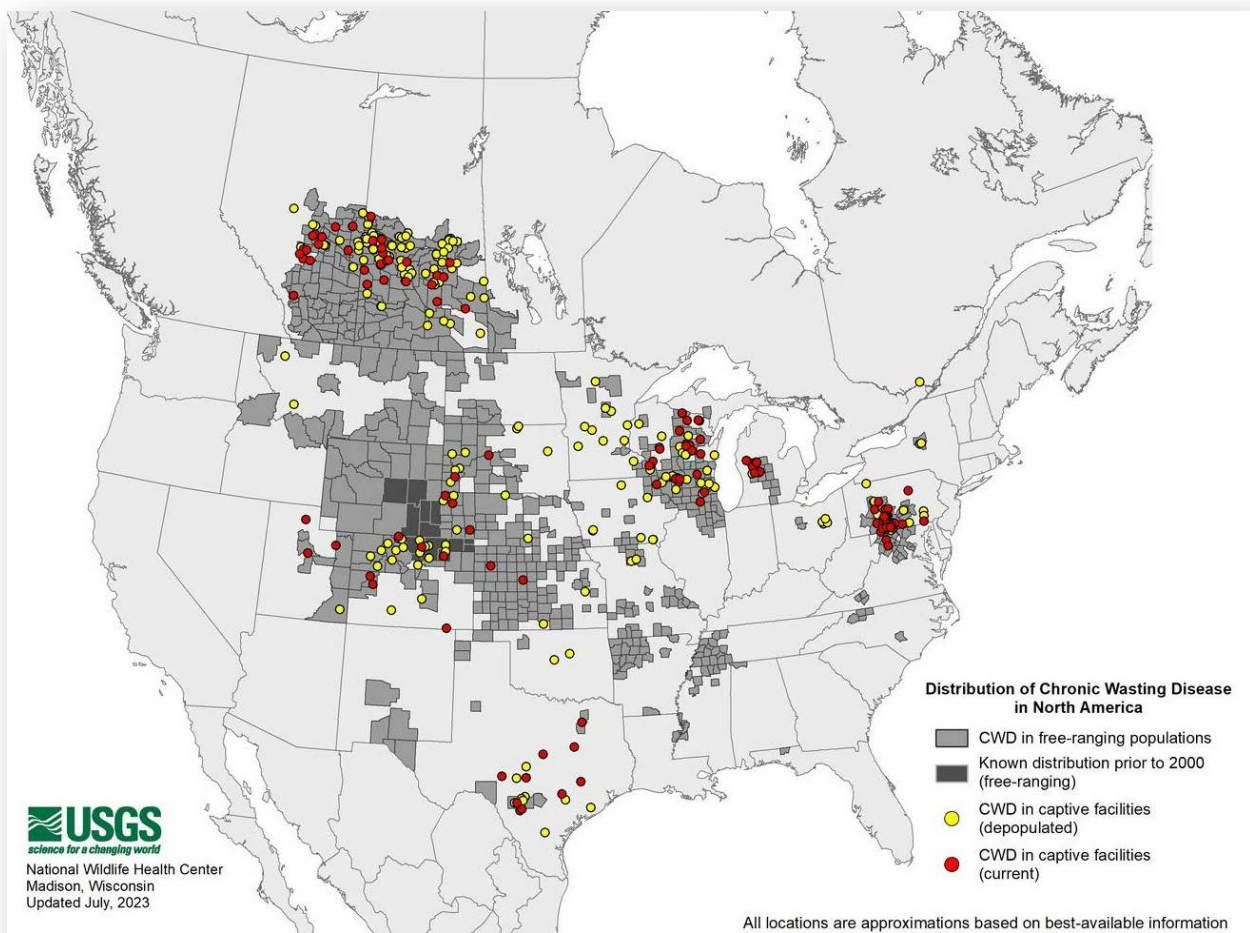
Chronic Wasting Disease was first encountered in 1967 at the Colorado State University’s Foothills Campus in Fort Collins Colorado by researchers studying mule deer and ways to prevent starvation in the winter months. It is possible the deer were infected before being transported to the facility. However, cross-species infection of scrapie from sheep may have occurred because the animals were kept in the same enclosures. Deer in the research project began “turning thin and wasting away toward a premature death” (Blumhardt, 2018).

After more than ten years, the disease was identified as a TSE (transmissible spongiform encephalopathy) by Dr. Beth Williams in 1978. The disease has a 100% mortality rate in elk and deer. CWD was found in deer at a Wyoming Game and Fish Department wildlife research center not long after its identification by Dr. Williams and then three years later in the wild in Colorado (Blumhardt, 2018).

The disease began to spread outside of the wild deer population when commercial game farms and zoos began moving infected deer. “Some infected animals escaped, and some came into contact with wild animals entering their pens, thus spreading the disease” (Blumhardt, 2018).

Dr. Michael Miller testified before Congress in 2002, “There are several important epidemiological features of CWD. We know to expect a prolonged incubation period in exposed deer and elk that averages somewhere in the range of 20–30 months with natural infections but may be somewhat shorter or considerably longer (perhaps 60 months or more) in individual cases. Susceptibility to CWD infection appears to be relatively uniform among species, between sexes, and across age classes; there does appear to be some genetic influence on susceptibility in elk but not deer. CWD appears to be maintained naturally in both captive and free-ranging cervid populations; epidemics persist in the absence of exposure to contaminated feeds or other likely outside sources of infection. Direct or indirect animal-to-animal transmission, not necessarily along maternal lines, drives CWD epidemics. Although we don’t know precisely how CWD is transmitted among deer and elk, the agent is probably shed in feces, saliva, and perhaps urine. In addition, contaminated environments likely play a role in epidemics and the recurrence of disease in some situations—in some cases, the CWD agent persisted in heavily contaminated environments for years after all infected deer or elk had been removed. This environmental persistence represents a significant obstacle for eradicating CWD in places where it is already well-established, either in captivity or in the wild” (Chronic Wasting Disease, 2002).

Dick Steele, DVM President of the Colorado Sportsman’s Wildlife Fund and President of the Western Colorado Sportsman’s Council submitted a letter to Congress in 2002 and stated, “Modeling studies by the Colorado Division of Wildlife and Colorado State University indicate that if CWD is not controlled our deer herds will no longer exist 100 years from now”. Dick Steele’s letter is found in Chronic Wasting Disease (Chronic Wasting Disease, 2002).



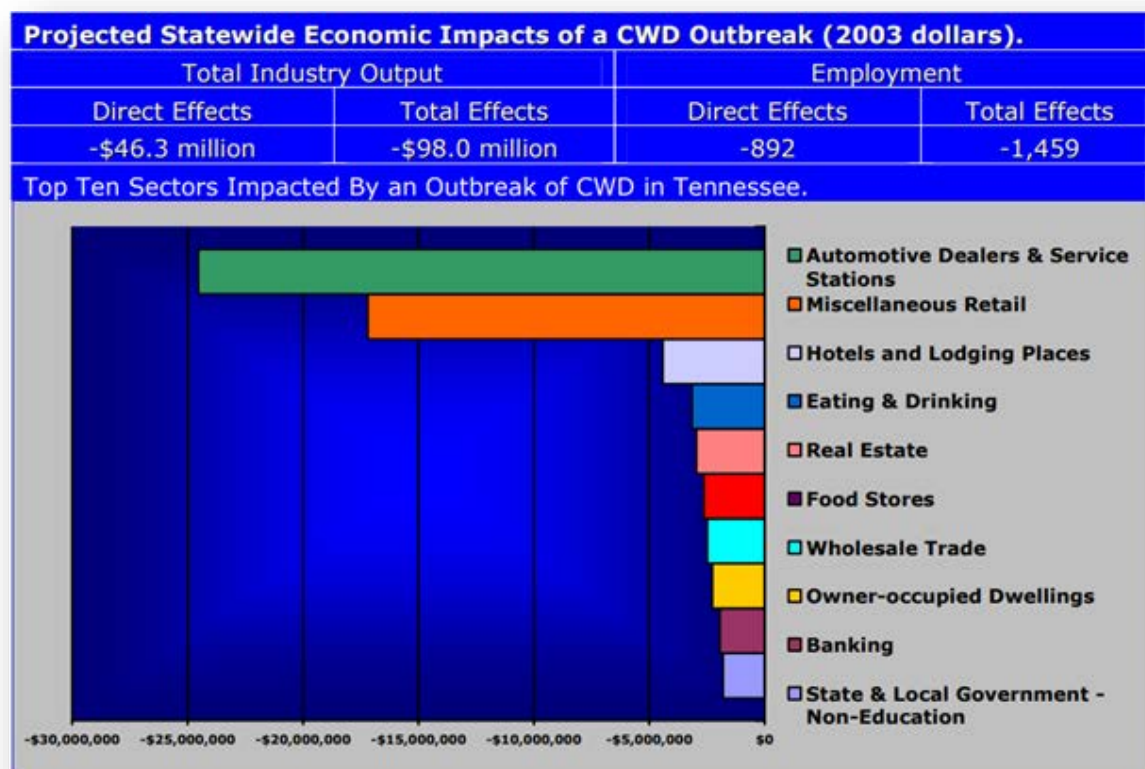
Negative Impact

The consumer surplus is an economic measure of a customer's economic benefit. More clearly stated, it is the difference between the consumer's willingness to pay for a product and the actual price they pay. From 2002 to 2015, the state of Wisconsin's consumer surplus dropped by \$96 million because of CWD. At the same time, revenues from deer hunting permit sales declined by almost \$17 million. Demand for hunting permits dropped by more than five percent since the discovery of the disease (Erickson et al., 2019).

Before finding CWD in Tennessee, the Department of Agricultural Economics completed a study to measure the economic impacts of CWD in the state. They cited the decline of hunter-days in Wisconsin which resulted in a decline in spending on deer hunting in the state. They also identified the potential impacts on employment and total industry output as well as highlighted

the top ten sectors that would be impacted by an outbreak of CWD in Tennessee, as shown in the graphic below (Menard et al., 2003). The top two sectors that Tennessee predicted to be impacted the most were Automotive Dealers & Service Stations and Miscellaneous Retail due to the anticipated decline in the number of hunter days. Automotive Dealers & Service Stations would be impacted by a reduction in travel by hunters. Miscellaneous Retail would also be impacted by hunters who would not be out buying supplies needed while hunting.

In addition to the decline in revenue from permit sales, it is also expected that land values in areas where CWD is found could fall also. Jeff Roberts, a real estate agent in the Black Belt, told the Montgomery Advertiser, “For farmers and landowners, leasing the hunting rights to their places is a huge secondary income for many. If CWD comes to Alabama, the land values are going to go into the basement. I’ve had clients turn their backs on absolutely beautiful hunting tracts when they found out feral hogs were on the property. You can imagine what CWD would do to spook buyers” (Roney, 2018).



Outreach Strategies

There have been many stories on CWD published by Outdoor Alabama prior to the first positive detection in Alabama to inform the public of the potential outcomes of CWD reaching our state. The message advertised by the Alabama Department of Conservation and Natural Resources (ADCNR) from 2016 until 2022 was Keep Alabama CWD-Free! And Don't Bring It Home. This campaign was featured on social media, billboards, gas pumps, and ice machines (Rainer, 2018). In a discussion with Billy Pope and Marianne Hudson with ADCNR, they mentioned that Townhall meetings also started after the first detection in Mississippi. There were multiple meetings held throughout the state after the first detection.

On January 7, 2022, the first positive CWD case detected in Alabama was announced and the outreach became focused on keeping up-to-date information on the Outdoor Alabama website and social media platforms (Chronic Wasting Disease Strategic Surveillance and Response Plan, 2021). The outreach message was changed from the "Don't Bring it Home" message to the current "Alabama Hunters Know the CWD Regulations" message. Alabama Wildlife and Freshwater Fisheries (WFF) Director Chuck Sykes has emphasized one of the goals of outreach is to get the correct information out there. There is a large amount of misinformation such as the belief that this is just a way to make money and CWD is not real (Second Case of CWD Confirmed in Northwest Alabama, 2022).

Through online research and personal interviews, we have found that most states are following the same script regarding outreach strategies. We spoke to representatives from Pennsylvania, Virginia, West Virginia, Colorado, Kansas, Nebraska, Tennessee, Mississippi, Wisconsin, Missouri, and Arkansas. All the people we spoke with listed social media, digital marketing, town hall meetings, websites, brochures, and signage posted throughout affected areas as their outreach strategies. Canada and Norway also worked on printed and digital means of outreach as well as public meetings.

Andrea Korman, Pennsylvania Game Commission Chronic Wasting Disease Section Supervisor, stated that the social media and email marketing of CWD was unsuccessful due to the negative

comments it was bringing out. Andrea also stated that Pennsylvania had attempted webinars with the National Deer Association, but the turnout was much lower than expected due to the time frame they were given. Andrea mentioned the Game Commission saw the most positive success from short surveys conducted over the phone. She said in free-range white-tailed deer and elk, the Game Commission does not have any mandatory testing. However, they do random samples from processors and the Disease Management Area regions have drop-off bins for voluntary testing. Andrea stated roadkill is very important to their department as on most occasions if a new CWD-infected area is found it is from roadkill.

In interviewing Brian Proctor, CWD Coordinator for the Pennsylvania Department of Agriculture, as well as Jody Boyer and David Zellner, we found out that the Pennsylvania Game Commission is responsible for the free-ranging deer and elk, and the Department of Agriculture is responsible for the captive deer and elk. They stated Pennsylvania has roughly 800 CWD premises they manage including zoos, hobby farms, and breeder farms. Some of these premises are what they refer to as certified programs and some are monitored programs. The Department of Agriculture stated they do not have budget lines set up, but they do have cooperative agreement grants that are earmarked for special projects. They, like other states, have partnerships with other state agencies to help build the best policies and combat CWD. They have a task force with the Game Commission, DCNR, DOT, the Pennsylvania Department of Environmental Protection, and Public Health.

According to the Virginia Department of Wildlife Resources, the state's surveillance efforts increased in 2005 and their most efficient targeting strategy was to test older males as that gender and age class was the most likely to be infected with CWD. Virginia did statewide sampling in years 2007, 2011, 2018, 2019, and 2020. The first positive CWD case was found in Frederick County in the year 2009 and has risen to 178 positive cases in 13 counties. In the following year, they created containment areas which evolved into Disease Management Areas in 2019 as more and more positive cases were detected. "Once CWD is confirmed in a new county or within 10 miles of the boundary of an existing Disease Management Area (DMA), a 10-mile buffer is drawn around the detection. All counties included within the 10-mile buffer are incorporated into either

an existing DMA or a newly created DMA. CWD monitoring within a DMA consists mainly of hunter-harvested (methods of collection include taxidermists, processors, and voluntary testing) and road-kill deer. Both male and female deer and all age classes (except for fawns) are tested” (Tracking Chronic Wasting Disease in Virginia, n.d.).

Paige Pearson, Department of Wildlife Resources Public Information Officer, stated Virginia had been successful with marketing the education of CWD to hunters and the public by social media, mass email to 700k plus within the DWR database, CWD website, tv, radio, magazines, and postcards. This allowed them to reach a large audience. They also found that town hall meetings were very successful early in the state’s efforts to get the word out. Paige said the state of Virginia has had great success with mandatory testing days within DMA’s as well as with the placement of drop-off coolers in every county. For those in the mandatory testing areas, to encourage participation, the DWR did raffles for some of their collector knives. Paige also stated that within the DMA’s all feeding was banned, as well as a statewide feeding band during the deer hunting seasons.

Colorado Parks and Wildlife (CPW) has been at the forefront of efforts to educate the public about CWD and manage its impact on wildlife in the state. CPW has implemented various educational initiatives to inform hunters, wildlife enthusiasts, and the general public about the disease. They conduct extensive public outreach and education programs to raise awareness about CWD by organizing workshops, seminars, and public meetings to provide information on CWD transmission, prevention, and monitoring efforts. These initiatives aim to empower individuals with knowledge to make informed decisions related to hunting and wildlife management. CPW publishes brochures, fact sheets, and guides that explain CWD and its implications. These resources provide information on CWD symptoms, transmission routes, and best practices for handling and processing harvested animals. By distributing these materials, CPW ensures that hunters and other stakeholders have access to accurate information to reduce the risk of CWD transmission (Chronic Wasting Disease in Colorado).

CPW relies on a combination of federal funds, grants, and state resources to support CWD research projects and advertising campaigns. CPW receives federal funds through various channels to support CWD research, monitoring, and management initiatives. These funds are allocated by federal agencies such as the U.S. Fish and Wildlife Service and the U.S. Department of Agriculture, which recognize the importance of addressing CWD for wildlife conservation. CPW actively seeks grants from private foundations and collaborates with universities and research institutions to secure additional funding for CWD-related research projects. These partnerships enable CPW to expand its research capabilities and explore innovative approaches to combatting CWD. CPW also relies on state resources, including hunting and fishing license fees and revenue generated through recreational activities, to fund CWD research and education programs. This ensures a sustainable funding base for ongoing efforts to address CWD in Colorado (Pearson, 2023).

The Kansas Department of Wildlife implemented a sampling program from 2003-2010 that was funded through a USDA-APHIS-Vet Services grant. After that funding ended, Kansas used W39 Pitman and Robertson Act funds that pay 75% of surveillance expenses. Sampling in Kansas is voluntary, and most samples are collected from local taxidermy shops across the state. Kansas pays collectors, including taxidermists, \$12 per sample. The testing cost per sample/deer is \$28 dollars. All sexes of cervids (mainly deer) have been tested for CWD, but bucks are tested more often because most of our samples come from taxidermists. Despite this, the United States has found that the probability of male deer acquiring CWD is significantly greater than females. Kansas State University has a USDA-APHIS-WS grant for CWD projects and research, mainly examining genetic resistance. In the past, Kansas tried check stations at local stores and gas stations to collect samples but found out this was not very efficient due to inexperienced personnel and lack of motivation to collect samples properly (Hesting, 2023).

Todd Nordeen told us that Nebraska Games and Parks had a large push with game meetings with landowners, email groups, website information, brochures, media outlets, and check stations after the first confirmation of CWD in Nebraska in 2000. When CWD was still fresh on residents' minds, there was more interest. That interest has faded over time. Nebraska

participated in multi-state meetings with Wyoming, Colorado, Utah, and Alberta on CWD and its effects and efforts to help stop the spread. From that meeting they decided to increase hunter harvest in certain areas and targeting older bucks seemed to help slow the spread. After the first confirmation, Nebraska did receive some federal grant dollars to assist with the CWD program through the Pitman and Robertson Act. Nebraska continues to apply for federal grant dollars to help with funding but recently has not been successful. Most dollars that fund CWD research and education efforts now are from general license sales (Nordeen, 2023).

CWD is becoming progressive in countries other than the United States. Outreach strategies and preventive measures are vital to Canadians. Chronic wasting disease threatens to impact the hunting and wildlife industry in Canada which would have a major economic impact on the country. CWD has been discovered in four provinces of Canada: Manitoba, Alberta, Saskatchewan, and Quebec. No known cases have been discovered in British Columbia.

The Canadian Food Inspection Agency (CFIA) oversees CWD in Canada. The CFIA initially had an eradication program in the early 2000s but eventually went to a more controlled program (Herd Certification Program). “Since the CFIA's original CWD eradication program started in 2000, the North American CWD picture has changed dramatically. Wild and farmed cases of CWD have continued to increase despite the CFIA's aggressive attempts to eradicate it. A significant re-occurrence rate has also been seen in Canadian herds that were previously depopulated, cleaned, decontaminated, and permitted to re-stock. This led to a program review and to the conclusion that eradication measures, using quarantines, and stamping-out actions in areas where the disease is endemic in wild cervids, are both ineffective and unsustainable. Based on all available information, a decision was made to switch from an eradication policy to one of control (Nelson and Schwantje 2019).

Preventative Measures

Only a few viable tools exist to deal with CWD. As a result, disease prevention is the most effective control measure. By participating in a CWD Herd Certification Program (HCP), individual

producers mitigate the risk through immaculate inventory control, rigorous herd testing, restricting herd entry to cervids at a similar or higher CWD HCP level, and enhanced on-farm biosecurity measures. Promoting compartmentalization in the national disease response program supports producers who are taking measures to keep CWD out of their farms (Chronic Wasting Disease Herd Certification Programs, 2021).

The benefits of being in a Herd Certification Program for cervid owners and farm operators are that it prevents the introduction of CWD and allows early detection if a herd is infected. “The CWD Herd Certification Programs use biosecurity management practices to prevent CWD from being introduced into a herd. Given that CWD is difficult to detect and impossible to treat, biosecurity is the most effective tool at a cervid producer's disposal to keep CWD out of a herd. The programs also have rigorous surveillance requirements that provide early detection in cases where a herd is infected. Biosecurity, coupled with early detection, helps protect enrolled herds” (Chronic Wasting Disease Herd Certification Programs, 2021).

The transport of deer harvested outside of Mississippi in a CWD-positive state, country, or territory was banned in 2016. This was later updated to any state, county, or territory outside of Mississippi (Deer Carcass Transportation Ban, 2023). The use of natural urine-based lures was also prohibited due to the potential presence of the prion that causes CWD (Mississippi Chronic Wasting Disease Management Plan, 2021). Supplemental feeding and the use of mineral blocks, or licks were prohibited in the CWD Management Zone (Deer Carcass Transportation Ban, 2023). Sampling began in 2002. In 2020 mandatory sampling weekends came into effect in certain areas in Mississippi. Additional restrictions were added in the CWD Management Zones (Mississippi Chronic Wasting Disease Management Plan, 2021).

There are currently no mandatory CWD regulations in Kansas, according to Shane Hesting, Wildlife Disease Program Coordinator for the Kansas Department of Wildlife and Parks, such as regulations on transporting meat across state lines. Hunters are encouraged to debone meat before transport.

Tennessee began testing for CWD in 2002 after a confirmed case in Wisconsin. Testing was increased in 2016 after a confirmed case in Arkansas. Feeding and carcass transportation restrictions were placed in the state after a confirmed case in 2018 (Help Keep CWD in Tennessee to a Minimum). Urine lure restrictions as well as interstate carcass transport were also prohibited during this period (Tennessee Wildlife Resources Agency, 2023).

Tennessee also has implemented some incentive programs. Hunters harvesting CWD-positive deer can receive a voucher for processing fees, and harvesting multiple positive deer can receive an annual sportsman's license. The Replacement Buck and Unit CWD Earn-a-Buck Program can give hunters additional options to harvest antlered deer in the UNIT CWD. Landowner management permits and Targeted removal are additional programs in the CWD-affected areas (Help Fight CWD Management & Incentives).

CWD testing is voluntary in Nebraska, and they have no restrictions on baiting, transport restrictions, or captive deer restrictions. They continue to do random voluntary sampling across the state to help monitor the spread of CWD. Nebraska also recently conducted a CWD survey targeting license holders, but it only received about 10% feedback from the targeted parties. The western portion of the state has more area affected by CWD which is correlated to the mule deer range (Nordeen, 2023).

Recommendations

The Future Is Now!! Promoting education and awareness of CWD in Alabama is vital to the survival of Alabama's white-tailed deer population. There is a real possibility that our future generations will live to see the decline of our states' white-tailed deer population, as well as our country's, up to the point of extinction if we do not properly equip our current generation of hunters as well as our state residents today. We have several recommendations for the Alabama Department of Conservation to utilize in its efforts to educate the public on the reality of CWD in Alabama.

QR Code

Based on our research, we recommend utilizing QR codes in print materials to provide easy access to CWD information. Integration of Quick Response or QR Codes in print materials such as business cards, magazines, and other feasible areas would offer interested parties quick access to CWD information in Alabama. The QR codes are cheap and easy to produce and can last a lifetime. It is predicted that 99.5 million people will use QR Codes by 2025. The codes can also be used to determine the effectiveness of a particular ad campaign (Kowalewicz, 2022). We recommend the QR codes to direct users to the CWD section on the Alabama DCNR website. We recommend these QR codes to be placed in locations with high hunter traffic such as Management area check-in stations, Alabama Hunting & Fishing Digest, or customized tailgate wraps on Alabama DCNR vehicles.

Billboards in key areas throughout the state

We recommend utilizing billboards in key areas of the state to raise awareness of the need to protect the deer population from CWD. Billboards have been found to be a great way to promote awareness of goods and services. People tend to remember things they have seen at different times in different locations. This allows them to relate to a brand or product at a later date. Many companies that use billboards as advertisements, use them to sell their brand and not a singular item they offer.

According to International Outdoor, on average, a consumer travels an average of 25+ hours and over 159 miles on the road a week. Eighty-one percent of travelers have noticed a static or digital billboard.

In a proposal from Lamar Outdoor Advertising, the Alabama Department of Conservation could reach over 2 million people per week for a total cost of \$340,000 (Appendix A). To reach these people, Lamar has also provided a map with a list of 15 billboards on major highways and interstates throughout the state of Alabama (Appendix B).

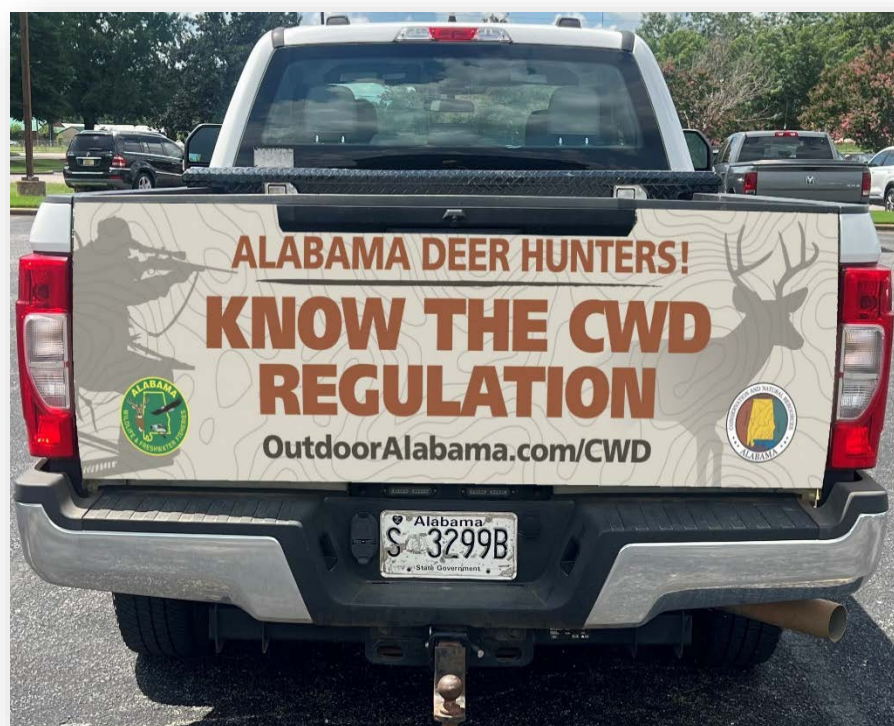
This is why billboard advertisements would be beneficial for CWD awareness. If consumers repeatedly see billboards promoting awareness of CWD it would create an “imprint” in their

memory. This would ultimately create curiosity for many people to visit the CWD website and educate themselves on the importance of CWD awareness.

Billboard locations designed to spread CWD awareness will be an important decision to ensure we reach our intended audience. Especially since we are in the early stages of CWD spread in Alabama. To increase CWD awareness while reducing costs, we recommend utilizing these billboards in and around the counties where CWD has been detected. We believe these billboards would be optimized in areas where deer hunters routinely travel such as interstates and rural highways while being well-lit since most hunters travel during the early morning hours. The verbiage on these billboards needs to be concise, to the point, and followed by a simple hyperlink to find detailed info on CWD.

Tailgate Wrap

In addition to static billboards, we recommend the department use tailgate wraps as a form of mobile advertising. Alabama DCNR has trucks that are out on the roads every day as the employees perform their work duties. Putting a wrap on the tailgate of their trucks will enable



more people to see their message, especially in the areas where the DCNR employees work the most. An example of how the tailgate wrap could look is shown below. We recommend DCNR include the QR code on the tailgate wrap for citizens to be able to quickly access the website to learn more about CWD.

Social Media Strategy

In this digital age, social media has emerged as a powerful tool to reach millions of online users instantly. With the increasing number of social media users and the popularity of short and long-form videos, our team recommends using digital marketing strategies, particularly on Facebook, Instagram, and YouTube, to effectively communicate the message of CWD in 2023 and beyond.

In 2023, social media has become an integral part of people's lives, with over 4.48 billion users worldwide according to Backlinko.com. Facebook leads the social media landscape with 2.9 billion monthly users, followed closely by YouTube with 2.3 billion users. The average social media user is active on 6.6 different platforms, spending an average of 2 hours and 24 minutes daily. These statistics underline the immense potential of social media for disseminating information and engaging with a global audience.

Short-form videos have emerged as a dominant content format on various social media platforms. To capitalize on this trend, we recommend increasing the social media presence of CWD-related content through short-form videos. These videos can be engaging, concise, and visually appealing, making them ideal for capturing the attention of the audience. Posting these short videos on approved platforms such as Facebook and Instagram will help maximize their reach and impact.

While short-form videos are effective for capturing attention, long-form videos offer an opportunity to provide in-depth and detailed information about CWD. Creating long-form videos with specific CWD-related topics, such as de-boning meat for transportation, understanding regulations, and submitting a deer for sampling, can foster a better understanding of the disease and its implications. To ensure wider accessibility, we recommend

uploading these videos on the Outdoor Alabama YouTube page, where users can consume the content at their convenience.

To complement the social media strategy, linking the long-form videos to the official Outdoor Alabama website is crucial. The website serves as a central hub for CWD-related information, offering a comprehensive resource for those seeking knowledge about the disease. By embedding the videos on the website, users can easily access and watch them alongside other important information concerning CWD.

Social media platforms also facilitate direct interaction with the audience. Responding to queries, comments, and feedback from users fosters a sense of engagement and community, building trust in the authenticity of the information shared. Furthermore, organizing live sessions, Q&A panels, and collaborations with wildlife experts can enhance the effectiveness of the digital marketing plan.

An essential aspect of any digital marketing plan is evaluating its effectiveness. Utilizing social media analytics tools will help measure the reach, engagement, and impact of the content shared. Data-driven insights will enable continuous improvement and optimization of the marketing strategy.

The power of social media in disseminating information cannot be underestimated, and leveraging this platform to spread awareness about Chronic Wasting Disease is essential. By incorporating short and long-form videos on Facebook, Instagram, and YouTube, complemented with a well-designed website, the message of CWD can be effectively communicated to a global audience. Continuous monitoring and improvement of the digital marketing plan will ensure its relevance and success in the ever-evolving world of digital media.

Perform Radio Broadcasts on syndicated talk shows or podcasts

Despite concerns about the decline of radio popularity, statistics indicate that terrestrial radio still maintains a strong presence in American households, making it an ideal medium for spreading information about CWD. Furthermore, radio advertising has shown to be highly trusted by the public, warranting its inclusion in the (DCNR) strategy to combat CWD.

According to Nielsen Media Research radio listener statistics from 2021, terrestrial (AM/FM) radio remains a highly influential medium in the United States, with approximately 88% of Americans tuning in on a weekly basis. Contrary to popular belief, radio has not experienced a substantial decline in popularity, especially when compared to other media forms such as social media. Given its wide reach, radio has the potential to be an effective platform for spreading information about CWD.

In the age of information overload, it is crucial to consider the trust factor associated with different advertising channels. Surprisingly, radio commands the highest share of collective trust in advertising, as revealed by Nielsen radio listening reports. This inherent trust in radio advertising strengthens its potential as an essential element of DCNR's strategy to spread the word on CWD.

Concerns about young people not engaging with traditional media, including radio, are not entirely accurate. Recent data indicates that radio continues to resonate with the younger demographic, making it a valuable medium to reach out to a broad spectrum of the population and build awareness about CWD.

Syndicated radio talk shows and podcasts have gained significant popularity in recent years, transcending geographical boundaries, and reaching a diverse and engaged audience. These shows often focus on various topics, including wildlife conservation and environmental issues. Collaborating with influential talk show hosts and podcasters could amplify the message on CWD, thereby increasing its impact on public awareness.

Based on the evidence presented, it is evident that including syndicated radio talk shows and podcasts in the DCNR's CWD awareness plan is essential. We recommend including the following steps:

- a. Identifying popular syndicated radio talk shows and podcasts with a substantial listener base, particularly those focusing on conservation and environmental topics.
- b. Crafting engaging and informative content that addresses CWD, its consequences, prevention measures, and how the public can support wildlife conservation efforts.

c. Collaborating with radio hosts and podcasters to feature interviews with experts, biologists, and conservationists, thereby lending credibility to the information presented.

d. Integrating the use of social media platforms to complement radio efforts and extend the reach of the CWD awareness campaign.

Syndicated radio talk shows and podcasts provide an excellent opportunity for the DCNR to effectively disseminate information about CWD to a broad and engaged audience. Considering the substantial reach and trust associated with radio advertising, leveraging this medium in the fight against CWD can significantly contribute to wildlife preservation and public safety. By combining radio efforts with other communication channels, the DCNR can create a robust awareness campaign that resonates with people of all ages and demographics.

Enhance CWD on the Department of Conservation and Natural Resources App

As stated with our recommendation for an enhanced social media strategy, the digital age is here to stay and is thriving. It is quite frankly driving the world we live in today.

According to buildfire.com, there are over 6.3 billion smartphone and 1.14 billion tablet users across the world. Phones are said to be more addicting than cocaine, and they are used in all facets of life and business. “In fact, studies show that the average American checks their phone 262 times per day! That’s once every, 5.5 minutes” (McCormack).

According to buildfire.com, the average person spends 3 hours and 10 min on their phone each day, with roughly 90% of that time spent on an app. Per research, the average smartphone has 80+ apps installed with only 9 mobile apps used by the average person per day. This equates to roughly 62% of those apps not getting used on a monthly basis (McCormack).

This research shows that apps can be extremely useful and powerful in getting information out, but they must be essential to retain the user past the download. According to DCNR, the Outdoor Alabama App had a total of 264k active iOS users and 86.5k active Android users. This presents DCNR with an opportunity to reach 350k people currently plus any new user(s) with information regarding CWD. However, to be effective, the information presented will be

relevant, factual, and concise to lure hunters and avid outdoorsmen to the OA App more frequently than harvest reporting.

Out of roughly 5.06 million people in the State of Alabama, only 161,446 (3.2%) residents purchased a hunting license during the 2021-2022 hunting season. There were also 31,053 nonresident hunting licenses sold. Being that the State of Alabama requires you to record your harvest within 48 hours, this brings another opportunity for DCNR to present educational information to recurring or new OA users.

We recommend that a link be inserted under the Field Guide section of the OA app for CWD that takes you to the area of your OA website for CWD. This would give OA app users quick access to CWD educational information quickly and easily.

Interactive partnerships

We recommend ADCNR form or strengthen partnerships with Alabama landowners and other Alabama state agencies. Alabama landowners have often worked with state agencies to promote education and conservation. It has been found that landowners trust conservation agencies more when they are involved in the process. This research has shown that in-person outreach leads to a higher level of trust (Virginia Tech, 2018). One issue with getting the message out is mistrust.

Partnering with other state agencies such as the Alabama Cooperative Extension Service and the Alabama Forestry Commission as well as federal agencies like the Natural Resource Conservation Service and the Farm Service Agency and sharing a consistent message on the importance of CWD can help fight this mistrust. A way to incorporate these into one would be to work with landowners and other agencies to conduct large outreach events.

Conclusion

There are many different threats to the deer population, including illnesses and diseases. Chronic Wasting Disease (CWD) is the most recent illness that affects deer in Alabama. CWD is a contagious, prion (neurological) disease that affects deer, elk, moose, and similar species and is 100% fatal. CWD is rapidly spreading across the United States and has already been discovered

in other countries. We have highlighted the efforts that the Alabama Department of Conservation and Natural Resources (ADCNR) has been making to slow the spread of CWD in Alabama. We have also offered several research-based recommendations on ways the ADCNR can effectively spread their message to help Alabama hunters to know the current regulations including a consistent and increased presence in social media and advertising using QR codes, so people are quickly able to access information online using their smartphones. Due to the economic and recreational importance of deer hunting in Alabama, we all have a responsibility to protect Alabama's deer population for future generations. Remember, the buck stops here.

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Proposal

Alabama Dept of Conservation

Campaign Term: October 2023 for 12 months

Type of Outdoor: Interstate Bulletins Statewide

Total Weekly Impressions: 2,135,762 per week

Total Cost: \$340,000 (including production)

Prepared by:

Russ Bullard

Lamar Advertising

55 Industrial Park Blvd.

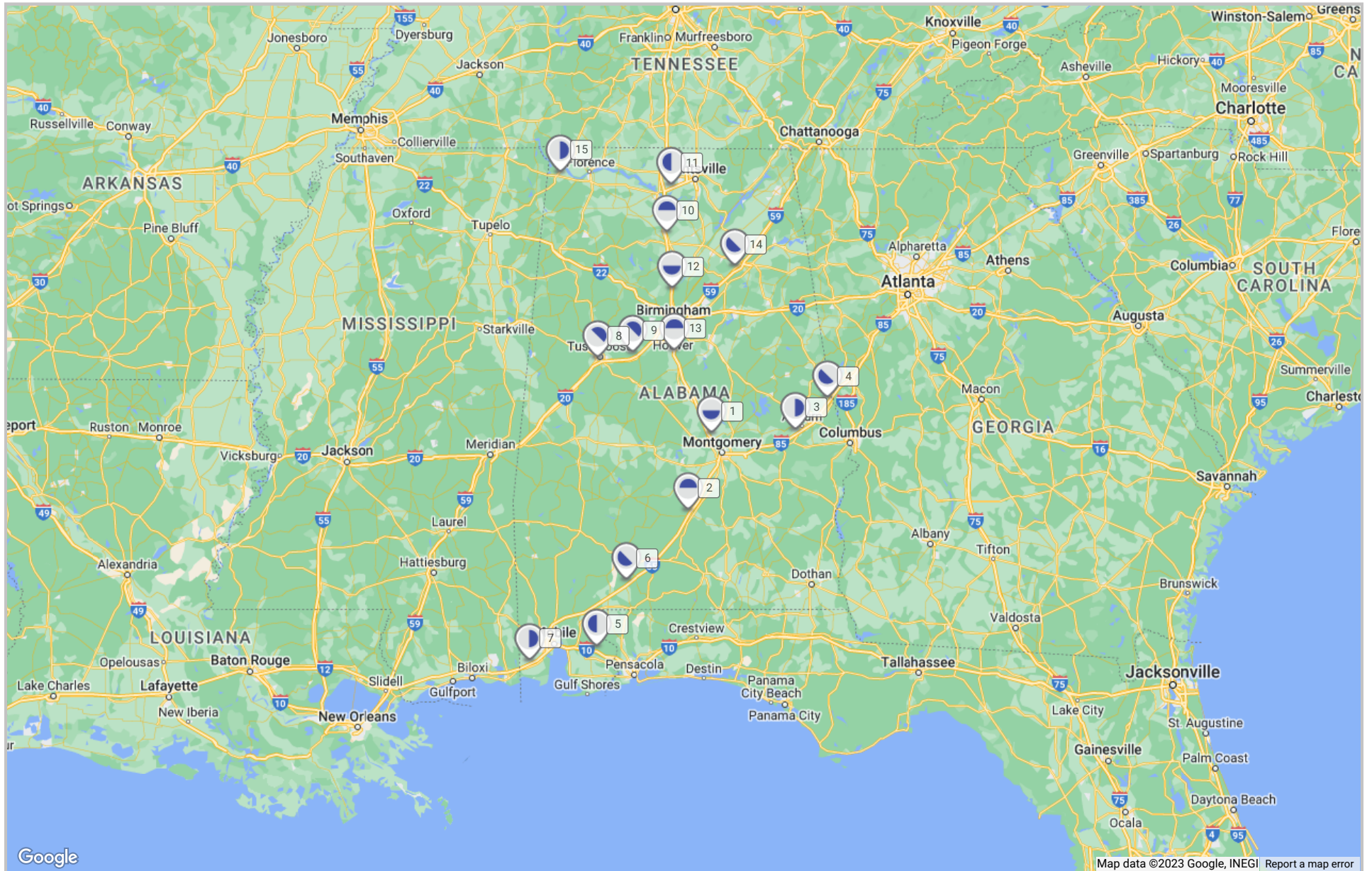
Montgomery, AL 36117

Tax ID# 72-1462298

VC# 000057776

MAP #1

AL DEPT OF CONSERVATION



LOCATION LIST

AL DEPT OF CONSERVATION


*Impression values based on: Total Population

Map Icon	Label	Panel #	Geopath Id	Media/Style	Facing	H x W	*Weekly Impressions	Illum.
	1	3038	31015301	Permanent Bulletin / Regular	North	14' 0" x 48' 0"	171,315	YES
Location: W/S I-65 500' N/O Hollybrook Lane Current Advertiser: MILO'S HAMBURGERS								
	2	3048	31015292	Permanent Bulletin / Regular	South	14' 0" x 48' 0"	93,522	YES
Location: W/S I-65 4500' N/O Exit 128 Current Advertiser: WINTZELLS OYSTER HOUSE GREENVILLE								
	3	78221	14924103	Permanent Bulletin / Regular	West	14' 0" x 48' 0"	168,406	YES
Location: S/S I-85 @ MM 48.7 F/S Current Advertiser: PONKO CHICKEN								
	4	77626	621824	Permanent Bulletin / Regular	North East	14' 0" x 48' 0"	145,814	YES
Location: E/S I-85 S/O EXIT 77 @ MM 75.56 F/N Current Advertiser: QUIK TRIP								
	5	80021	405762	Permanent Bulletin / Regular	East	14' 0" x 48' 0"	100,263	YES
Location: N/S I-10 2ND E/O WILCOX Current Advertiser: OASIS TRAVEL CENTER								

LOCATION LIST

AL DEPT OF CONSERVATION

*Impression values based on: Total Population

Map Icon	Label	Panel #	Geopath Id	Media/Style	Facing	H x W	*Weekly Impressions	Illum.
	6	51031	405117	Permanent Bulletin / Regular	North East	12' 0" x 48' 0"	90,127	NO
Location: W/S I-65 1 MILE N/O BARNETT CROSSING Current Advertiser: VISIT PENSACOLA								
	7	65071	617987	Permanent Bulletin / PanelFree	West	12' 0" x 40' 0"	155,431	NO
Location: S/S I-10 4TH W/O MCDONALD RD F/W Current Advertiser: DICK RUSSELL'S								
	8	10153	348656	Permanent Bulletin / Regular	South West	14' 0" x 48' 0"	102,646	NO
Location: I-59 E/L 2.4 MILES S/O AL 69 EXIT 71 Current Advertiser: CHICK-FIL-A SOUTH								
	9	78023	349031	Permanent Bulletin / Regular	South West	14' 0" x 48' 0"	193,632	YES
Location: I-59 E/L .3 MI N/O MERCEDES DR. EXIT 89 Current Advertiser: THE J.M. SMUCKERS COMPANY								
	10	6199	30991318	Permanent Bulletin / Regular	South	14' 0" x 48' 0"	150,886	YES
Location: I65 EL 2.4MI N/O EXIT 310 (HWY 157) FS Current Advertiser: 146 HUNTSVILLE/DECATUR, AL - BUC-EE'S								

LOCATION LIST

AL DEPT OF CONSERVATION

*Impression values based on: Total Population

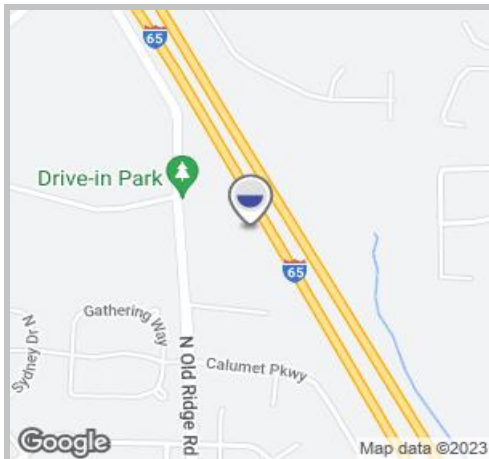
Map Icon	Label	Panel #	Geopath Id	Media/Style	Facing	H x W	*Weekly Impressions	Illum.
	11	13735	345615	Permanent Bulletin / Regular	East	10' 0" x 40' 0"	186,443	YES
Location: I-565 NL .5 MI E/O GREENBRIER FE Current Advertiser: EDWARD ROSE & SONS								
	12	10000	342264	Permanent Bulletin / Regular	North	14' 0" x 48' 0"	209,334	YES
Location: I-65 N W/L 2.3M(3RD UN)S/O EXIT 280 Current Advertiser: MT. OLIVE CHEVRON								
	13	9953	31015388	Permanent Bulletin / Regular	South	14' 0" x 48' 0"	253,921	YES
Location: I-65 E/L @ MM #237 Alabaster Current Advertiser: STATE FARM								
	14	93661	349756	Permanent Bulletin / Regular	North East	14' 0" x 48' 0"	77,593	YES
Location: I-59 E/L 1.4 MI N/O STEELE EXIT 174 N/F Current Advertiser: ALABAMA TRACTOR - ASHVILLE								
	15	117	427243	Permanent Bulletin / Regular	West	10' 6" x 40' 0"	36,429	YES
Location: HWY 72 SL .2 MI E/O CO 21 FW Current Advertiser: ALEXANDER SHUNNARAH								
Total Weekly Impressions: 2,135,762								

PANEL #3038

W/S I-65 500' N/O Hollybrook Lane



LOCATION #1



*Impression values based on: Total Population

WEEKLY IMPRESSIONS: 171,315*
MEDIA TYPE/STYLE: Permanent Bulletin - Regular
LAT/LONG: [32.497605 / -86.416456](#)
MARKET: PRATTVILLE
GEOPATH ID: 31015301
PANEL SIZE: 14' 0" x 48' 0" [View Spec Sheet](#)
VINYL SIZE: 15' 0" x 49' 0"
FACING/READ: North / Right
ILLUMINATED: YES
SHIPPING ADDRESS: 55 Industrial Park Boulevard Montgomery, AL 36117

PANEL #3048

W/S I-65 4500' N/O Exit 128



LOCATION #2



WEEKLY IMPRESSIONS: 93,522*
MEDIA TYPE/STYLE: Permanent Bulletin - Regular
LAT/LONG: [31.834469 / -86.659733](#)
MARKET: GREENVILLE
GEOGRAPH ID: 31015292
PANEL SIZE: 14' 0" x 48' 0" [View Spec Sheet](#)
VINYL SIZE: 15' 0" x 49' 0"
FACING/READ: South / Left
ILLUMINATED: YES
SHIPPING ADDRESS: 55 Industrial Park Boulevard Montgomery, AL 36117

*Impression values based on Total Population



HUNTSVILLE/DECATUR | 800.238.4914 | lamar.com/northalabama

PANEL #78221

S/S I-85 @ MM 48.7 F/S



LOCATION #3



ADVERTISING STRENGTHS: This location would target northbound traffic coming into Auburn. Positioned only a couple of miles from Exit 51. South College Street, the main artery heading into Auburn University.

WEEKLY IMPRESSIONS: 168,406*

MEDIA TYPE/STYLE: Permanent Bulletin - Regular

LAT/LONG: [32.53693 / -85.54519](#)

MARKET: AUBURN-OPELIKA

GEOPATH ID: 14924103

PANEL SIZE: 14' 0" x 48' 0" [View Spec Sheet](#)

VINYL SIZE: 15' 0" x 49' 0"

FACING/READ: West / Right

ILLUMINATED: YES

SHIPPING ADDRESS: 55 Industrial Park Boulevard Montgomery, AL 36117

*Impression values based on: Total Population

PANEL #77626

E/S I-85 S/O EXIT 77 @ MM 75.56 F/N



LOCATION #4



ADVERTISING STRENGTHS: This bulletin would target drivers to food, lodging and attractions to exits of Auburn-Opelika and Montgomery.

WEEKLY IMPRESSIONS: 145,814*

MEDIA TYPE/STYLE: Permanent Bulletin - Regular

LAT/LONG: [32.80688 / -85.22574](#)

MARKET: LANETT

GEOPATH ID: 621824

PANEL SIZE: 14' 0" x 48' 0" [View Spec Sheet](#)

VINYL SIZE: 15' 0" x 49' 0"

FACING/READ: North East / Left

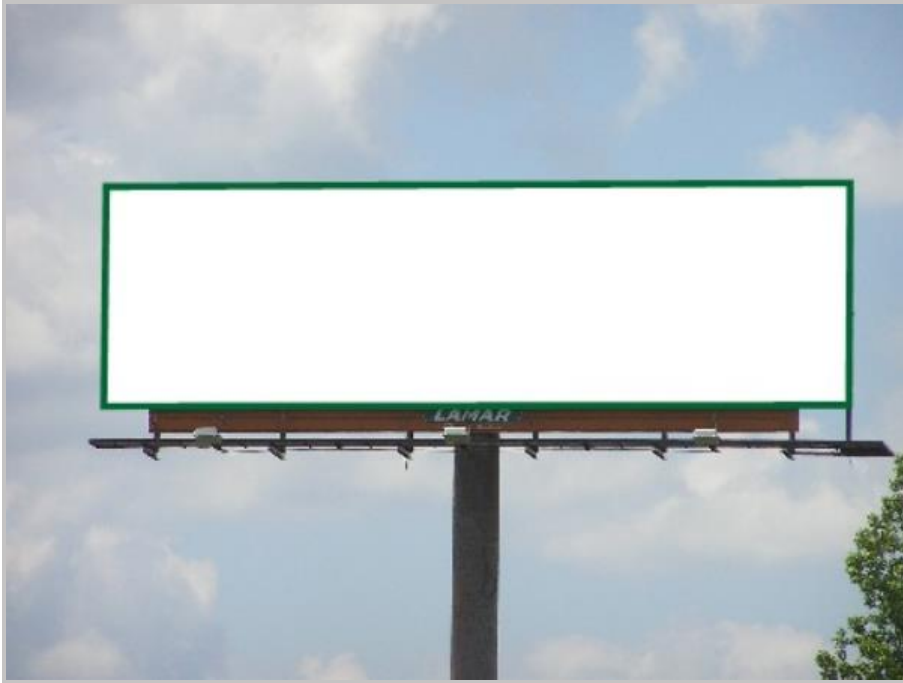
ILLUMINATED: YES

SHIPPING ADDRESS: 55 Industrial Park Boulevard Montgomery, AL 36117

*Impression values based on: Total Population

PANEL #80021

N/S I-10 2ND E/O WILCOX



LOCATION #5



ADVERTISING STRENGTHS: Located on highly traveled interstate in thriving Baldwin County The majority of all traffic from Florida entering Alabama will pass this panel.

WEEKLY IMPRESSIONS: 100,263*
MEDIA TYPE/STYLE: Permanent Bulletin - Regular

LAT/LONG: [30.62675 / -87.60103](#)
MARKET: LOXLEY
GEOPATH ID: 405762
PANEL SIZE: 14' 0" x 48' 0" [View Spec Sheet](#)
VINYL SIZE: 15' 0" x 49' 0"
FACING/READ: East / Right
ILLUMINATED: YES
SHIPPING ADDRESS: 3353 Halls Mill Road Mobile, AL 36606

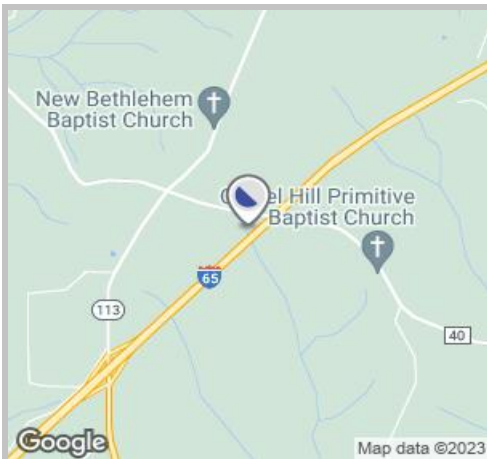
*Impression values based on: Total Population

PANEL #51031

W/S I-65 1 MILE N/O BARNETT CROSSING



LOCATION #6



ADVERTISING STRENGTHS: Located North of Atmore. Reaching traffic heading South towards Casino and Gulf Coast Expressway for those heading toward Gulf Shores Beaches.

WEEKLY IMPRESSIONS: 90,127*

MEDIA TYPE/STYLE: Permanent Bulletin - Regular

LAT/LONG: [31.21699 / -87.29607](#)

MARKET: ATMORE

GEOPATH ID: 405117

PANEL SIZE: 12' 0" x 48' 0" [View Spec Sheet](#)

VINYL SIZE: 13' 0" x 49' 0"

FACING/READ: North East / Right

ILLUMINATED: NO

SHIPPING ADDRESS: 3353 Halls Mill Road Mobile, AL 36606

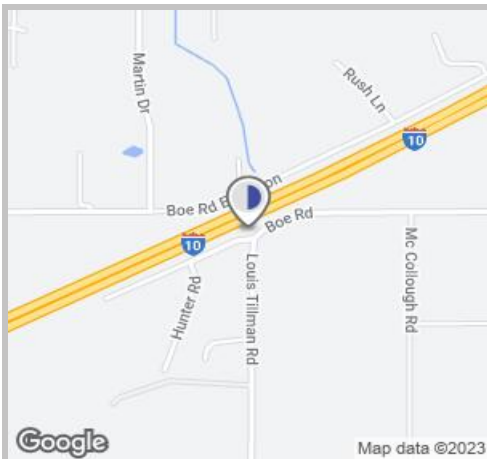
*Impression values based on: Total Population

PANEL #65071

S/S I-10 4TH W/O MCDONALD RD F/W



LOCATION #7



*Impression values based on: Total Population

ADVERTISING STRENGTHS: Located on highly traveled Interstate 10. Drivers heading into Mobile or looking to get on Interstate 65 will pass this board as they travel.

WEEKLY IMPRESSIONS: 155,431*

MEDIA TYPE/STYLE: Permanent Bulletin - PanelFree

LAT/LONG: [30.50815 / -88.29337](#)

MARKET: MOBILE

GEOGRAPHIC ID: 617987

PANEL SIZE: 12' 0" x 40' 0" [View Spec Sheet](#)

VINYL SIZE: 13' 0" x 41' 0"

FACING/READ: West / Right

ILLUMINATED: NO

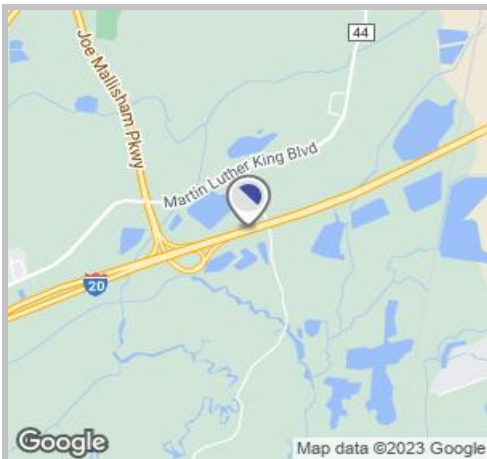
SHIPPING ADDRESS: 3353 Halls Mill Road Mobile, AL 36606

PANEL #10153

I-59 E/L 2.4 MILES S/O AL 69 EXIT 71



LOCATION #8



ADVERTISING STRENGTHS: Located just outside of Tuscaloosa this location is excellent for providing travelers information as to which of the five Tuscaloosa exits will provide the services they are in need of.

WEEKLY IMPRESSIONS: 102,646*

MEDIA TYPE/STYLE: Permanent Bulletin - Regular

LAT/LONG: [33.1546 / -87.59015](#)

MARKET: TUSCALOOSA/NORTHPORT

GEOPATH ID: 348656

PANEL SIZE: 14' 0" x 48' 0" [View Spec Sheet](#)

VINYL SIZE: 15' 0" x 49' 0"

FACING/READ: South West / Right

ILLUMINATED: NO

SHIPPING ADDRESS: 3850 Greensboro Avenue Tuscaloosa, AL 35405

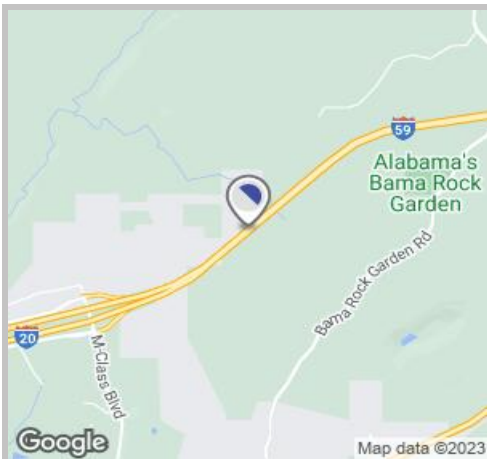
*Impression values based on: Total Population

PANEL #78023

I-59 E/L .3 MI N/O MERCEDES DR. EXIT 89



LOCATION #9



ADVERTISING STRENGTHS: This bulletin on I-20/59 is about halfway between Birmingham and Tuscaloosa. Located close to the Mercedes plant this is a great location to reach commuters and other interstate travelers heading into Birmingham.

WEEKLY IMPRESSIONS: 193,632*

MEDIA TYPE/STYLE: Permanent Bulletin - Regular

LAT/LONG: [33.20048 / -87.2328](#)

MARKET: VANCE

GEOPATH ID: 349031

PANEL SIZE: 14' 0" x 48' 0" [View Spec Sheet](#)

VINYL SIZE: 15' 0" x 49' 0"

FACING/READ: South West / Right

ILLUMINATED: YES

SHIPPING ADDRESS: 3850 Greensboro Avenue Tuscaloosa, AL 35405

*Impression values based on: Total Population

PANEL #6199

I65 EL 2.4MI N/O EXIT 310 (HWY 157) FS



LOCATION #10



*Impression values based on: Total Population

ADVERTISING STRENGTHS: Commuters on I-65 headed north have a long time to view your message. Exit 328 - Hwy 36, Main Street Hartselle is less than 14 miles ahead with Decatur and Huntsville not far from that.

WEEKLY IMPRESSIONS: 150,886*

MEDIA TYPE/STYLE: Permanent Bulletin - Regular

LAT/LONG: [34.23824 / -86.88152](#)

MARKET: CULLMAN

GEOGRAPHIC ID: 30991318

PANEL SIZE: 14' 0" x 48' 0" [View Spec Sheet](#)

VINYL SIZE: 15' 0" x 49' 0"

FACING/READ: South / Right

ILLUMINATED: YES

SHIPPING ADDRESS: 260 Electronics Blvd SW Huntsville, AL 35824

PANEL #13735

I-565 NL .5 MI E/O GREENBRIER FE



LOCATION #11



*Impression values based on: Total Population

ADVERTISING STRENGTHS: Right-hand-read bulletin unit facing east on Interstate 565 in Greenbrier, AL. Reaches westbound traffic traveling towards the Interstate 65 exchange. Targets Highway 20, Decatur, AL, and the Tennessee River.

WEEKLY IMPRESSIONS: 186,443*

MEDIA TYPE/STYLE: Permanent Bulletin - Regular

LAT/LONG: [34.64499 / -86.83535](#)

MARKET: HUNTSVILLE

GEOPATH ID: 345615

PANEL SIZE: 10' 0" x 40' 0" [View Spec Sheet](#)

VINYL SIZE: 11' 0" x 41' 0"

FACING/READ: East / Right

ILLUMINATED: YES

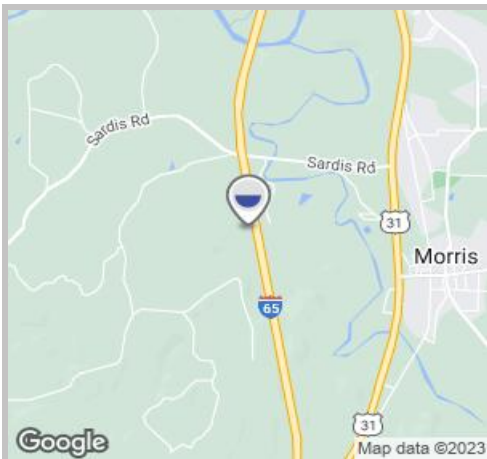
SHIPPING ADDRESS: 260 Electronics Blvd SW Huntsville, AL 35824

PANEL #10000

I-65 N W/L 2.3M(3RD UN)S/O EXIT 280



LOCATION #12



WEEKLY IMPRESSIONS: 209,334*
MEDIA TYPE/STYLE: Permanent Bulletin - Regular
LAT/LONG: [33.751685 / -86.829689](#)
MARKET: BIRMINGHAM
GEOGRAPH ID: 342264
PANEL SIZE: 14' 0" x 48' 0" [View Spec Sheet](#)
VINYL SIZE: 15' 0" x 49' 0"
FACING/READ: North / Right
ILLUMINATED: YES
SHIPPING ADDRESS: 920 6th Street South Birmingham, AL 35205

*Impression values based on: Total Population

PANEL #9953

I-65 E/L @ MM #237 Alabaster



LOCATION #13



WEEKLY IMPRESSIONS: 253,921*
MEDIA TYPE/STYLE: Permanent Bulletin - Regular
LAT/LONG: [33.221731 / -86.804049](#)
MARKET: BIRMINGHAM
GEOGRAPHIC ID: 31015388
PANEL SIZE: 14' 0" x 48' 0" [View Spec Sheet](#)
VINYL SIZE: 15' 0" x 49' 0"
FACING/READ: South / Right
ILLUMINATED: YES
SHIPPING ADDRESS: 920 6th Street South Birmingham, AL 35205

*Impression values based on: Total Population

PANEL #93661

I-59 E/L 1.4 MI N/O STEELE EXIT 174 N/F



LOCATION #14



*Impression values based on: Total Population

ADVERTISING STRENGTHS: This unit targets southbound traffic just before the Steele, Ala. exit. Points ahead are Ashville, Oneonta & Springville. Birmingham is approximately 41 miles.

WEEKLY IMPRESSIONS: 77,593*

MEDIA TYPE/STYLE: Permanent Bulletin - Regular

LAT/LONG: [33.94194 / -86.17178](#)

MARKET: GADSDEN

GEOGRAPHIC ID: 349756

PANEL SIZE: 14' 0" x 48' 0" [View Spec Sheet](#)

VINYL SIZE: 15' 0" x 49' 0"

FACING/READ: North East / Left

ILLUMINATED: YES

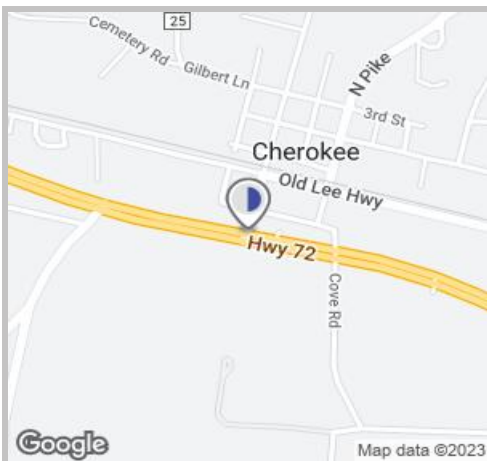
SHIPPING ADDRESS: 2441 East Meighan Blvd Gadsden, AL 35903

PANEL #117

HWY 72 SL .2 MI E/O CO 21 FW



LOCATION #15



ADVERTISING STRENGTHS: This is a great board right in the Cherokee, AL community on Hwy 72. It also reaches traffic traveling from the Shoals area as well as travelers going westbound on Us72/20.

WEEKLY IMPRESSIONS: 36,429*

MEDIA TYPE/STYLE: Permanent Bulletin - Regular

LAT/LONG: [34.75446 / -87.97368](#)

MARKET: CHEROKEE

GEOPATH ID: 427243

PANEL SIZE: 10' 6" x 40' 0" [View Spec Sheet](#)

VINYL SIZE: 11' 6" x 41' 0"

FACING/READ: West / Right

ILLUMINATED: YES

SHIPPING ADDRESS: 260 Electronics Blvd SW Huntsville, AL 35824

*Impression values based on: Total Population