

The role of social media in nonprofit environmental organizations:  
An analysis of impact and use

by

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## **ABSTRACT**

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With social media becoming a main communication tool, environmental nonprofits are using social media platforms as a main way of communicating with the public and their audience. This paper analyzes, measures and compares the social media engagement of six different North Carolina environmental nonprofit organizations. Tweets and Facebook posts were collected from each organization over a specific time period and analyzed and measured for engagement levels based on values of likes, shares, etc. As part of the study, I also analyzed the type of content the organizations were sharing in regards to subject matter, categories, and possible motivations. This study found that all of the organizations were consistent at posting to both platforms on a regular basis. However, the organizations differed in the type of content in relation to subject matter, motivation, and category. Additionally, organizations that included an image in their post had higher rates of engagement than just text alone. Nonprofit organizations need to be strategic in the type of content that they share, adding images and other types of multimedia will likely result in higher levels of engagement.

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# THE ROLE OF SOCIAL MEDIA IN NONPROFIT ENVIRONMENTAL ORGANIZATIONS: AN ANALYSIS OF IMPACT AND USE

## INTRODUCTION

Social media offer a way in which people can easily learn what is occurring within an organization and participate in its movements, initiatives, and activities. Since the emergence of the first social media networks some two decades ago, social media have continued to evolve and offer consumers around the world new and meaningful ways to engage with the people, events and brands that matter to them. Now, years later, social media are still growing rapidly, becoming an integral part of our daily lives. Social networking is now truly a global phenomenon. According to the Pew Research Internet project (2014), as of January 2014, 74% of online adults use social networking sites. Twitter, LinkedIn, YouTube, Facebook, and other social media sites have introduced new organized platforms for organizations to facilitate relationship building and stakeholder engagement.

Social media platforms provide a new outreach mechanism for environmental organizations. In particular, the mechanism increases their ability to connect with potential donors and supporters, rally support for their campaigns, and enhance their overall visibility. Social media has the power to revitalize environmental nonprofits, whose aging membership and support is slowly disappearing (Hanscom, 2012). In order to maintain longevity of support and funding, organizations must look at ways to capture a wider demographic. The fast-paced, endlessly changing world of social media is geared towards youth, and if it is used wisely, has the opportunity to garner the support of up and coming generations. It is therefore crucial for

organizations interested in maintaining themselves in the long-term to make effective use of outreach strategies, and social media is an innovative tool to accomplish this undertaking.

To gain an understanding of the organizational implications of social media to environmental nonprofit organizations, I will assess how and why environmental nonprofit organizations that primarily engage in environmental policy strategies utilize social media and to what effect. Narrowing this study's scope to North Carolina enables a comparative analysis of social media use and its impacts on a subset of organizations. This project will examine the social media profiles of six North Carolina nonprofit environmental organizations. Though there are numerous social media platforms, the focus of this project will be directed toward the two most popular social media sites, Twitter and Facebook. By investigating the way these groups engage with their users, environmental campaigns can be customized to create stronger online relationships with their followers. I hypothesize that the organizations that post frequently, at least once a day, and include multimedia with those posts, such as video and images, will have higher rates of engagement with their users.

## LITERATURE REVIEW

Despite the growing popularity of social media, only a handful of studies explore the use of social media in regards to environmental nonprofit organizations (Briones et al, 2012). Though no specific guide currently exists to help an environmental nonprofit organization manage their social media presence, previous research on online relationship development offers insights into how social networking sites should be used to foster relationship growth. A 2009 study by Bortree and Seltzer found that after sampling the Facebook profiles of 50 environmental advocacy groups the organizations failed to fully engage with their users. After

analyzing the level of dialogue of the organization with its users, Bortree and Seltzer found that the organizations seem to adopt the position that the mere creation of an interactive space via a social networking profile was sufficient for facilitating dialogue, but was missing a significant opportunity to build mutually beneficial relationships with stakeholders by failing to effectively utilize the full gambit of dialogic strategies (2009).

In 2012, Lovejoy and Saxton examined the Twitter utilization practices of 100 of the largest nonprofit organizations in the United States. Their study found that the organizations were missing the bigger picture of its uses as a community-building and mobilization tool. They were not using Twitter to its full capacity as a stakeholder-engagement vehicle. That “just” being on Twitter was not enough—organizations need to know how to use the medium to fully engage stakeholders. They based this conclusion by analyzing and coding the Twitter message content of the nonprofit organizations.

Organizations are now going beyond using their Facebook account to announce an event or their Twitter page to solicit donations; instead they are increasingly using social technologies to build networks of collaborators, to grow their conscience constituencies and to foster a new era of creativity and symmetrical communication between message senders and receivers (Greenberg & MacAulay, 2009).

Social media are claimed to help organizations engage present and potential stakeholders by sharing, cooperating, and mobilizing joint actions in near-real time (Greenberg & MacAulay, 2009). Organizations can use social media to cultivate their online image, increase the visibility of their concerns and goals, encourage social and political action, and engage a wider audience. In addition, built-in analytic tools provided by social media sites allow

organizations to more thoroughly analyze their outreach and gather useful data as to their effectiveness reaching their target audience.

The domain of social media platforms is relatively new, and represents an innovative opportunity to communicate, promote and engage. While nonprofit use has received some research attention, there has been little to no analysis regarding the topic. The current literature regarding environmental organizations' use of social media is limited, more specifically environmental nonprofits. However, there is growing literature on social media use in general, which can help direct the research questions in this proposal and assist in exploring more in-depth social media activity used by nonprofit environmental organizations.

In short, with literature concentrating on organizations' general use of technology and the base analysis of how they use social networks like Facebook, we do not have a good understanding of what compels environmental nonprofits to adopt social media technologies nor what drives them to different communication strategies. This research will seek to gather a better understanding of the way environmental organizations are using the social networks to communicate and connect.

#### *WHAT ARE SOCIAL MEDIA?*

Social media refers to online communication channels that facilitate interaction and media distribution between people. Unlike more traditional online channels, social media allows for participation, engagement and real-time feedback on the part of supporters and constituents.

Social media has transformed the way that people lead their daily lives and altered human communication. Social networking is becoming increasingly popular for one primary reason: people want to connect. That need to connect has created a demand for online forms of

social media, creating new opportunities for engagement that can be very beneficial to non-profits. According to Nielsen (2014), social media are used daily by 64% of US adults (on the PC); however, mobile devices are driving growth, with 47% of smartphone owners using social media daily. Bearing in mind how much time Americans spend on social media sites each day, they have become an integral new forum of outreach at all levels, corporate, non-profit and non-governmental. Social media also has multiple functions.

Furthermore, social media provides a simple venue to raise awareness and concern about important issues, and allows a wide variety of interests to be easily communicated. The 'quick' nature of Facebook and Twitter posts allows concerns to be stated concisely, appealing to a more general audience. Along with raising issue awareness, calls to action can be made. Organizations are able to advertise events on Facebook on Twitter, mobilizing audiences more quickly and in greater numbers. Events can be "boosted" to other Facebook users when their Facebook friends agree to attend them. Being able to see their friends' commitment may encourage people to become interested in the organization as well. Lastly, social media sites are important in that they garner support for specific causes. Although some people may ultimately decide not to become members, their support is still symbolic for the organization and may prompt the attention of others.

Every day, social media's influence grows and becomes woven into everyday life. This phenomenon is validated by the rapid adoption of social media technologies. Even more critical for nonprofits is the fact that social media usage is not limited to any one demographic. The last decade has seen a massive shift in how people consume and interact with information. The Internet's communication channels, in conjunction with the arrival of social media and social networking technologies, have forever changed how people interact with each other and



brands. For nonprofits to capitalize on the opportunities in social media requires them to embrace that technology now allows supporters to engage with your organization unlike ever before. Communication has shifted from a monologue, where you broadcasted your nonprofit's mission, to a dialogue where more and more your organization's branding and positioning is controlled by your supporters and detractors.

In the past, organizations could only broadcast messages with the use of email or a website. Now, online channels have opened and permit anyone to create content through blogs, hold real-time conversations on micro-blogging platforms, and develop a network of both personal and professional contacts. In other words, social media is creating a fundamental shift in the way people communicate online—changing your interactions to be more of a conversation with supporters (Convio, 2012).

#### *WHAT IS FACEBOOK?*

Facebook was launched in 2004, and is currently the most popular social media platform in the world, with 1 billion users worldwide. Corporations and organizations use Facebook to portray their mission and convey what they have to offer to the public.

As of June 2015 Facebook (2015 a) reportedly had:

- 968 million daily active users on average for June 2015
- 844 million mobile daily active users on average for June 2015
- 1.49 billion monthly active users as of June 30, 2015
- 1.31 billion mobile monthly active users as of June 30, 2015
- Approximately 83.1% of our daily active users are outside the US and Canada

The Facebook “wall” is this platform’s key feature. It is essentially a user’s profile, which summarizes their Facebook activity. A “status update” allows users to tell their Facebook friends what is on their mind or what they are doing, and shows up in the “news feeds” of their friends. “Status updates” are also referred to as “posts.” In addition to sharing thoughts, Facebook users can share multimedia on their pages. Recently, Facebook has referred to people’s profiles as “personal Timelines” which are for “individual, non-commercial use.” Facebook changed its format to “Timeline” in 2012, which assists with searches of Facebook users’ past activity to the first day they signed up (Facebook, 2015). Facebook “friends” are individuals who agree to let each other see each other’s profiles, enabling them to view each other’s profiles and interact by commenting on each other’s activity.

Pages provide another way in which Facebook users can connect. Personal profiles are for non-commercial use and represent individual people. A person can follow profiles to see public updates from people he or she is interested in but aren't friends with. Pages look similar to personal profiles, but they offer unique tools for businesses, brands and organizations, additionally, people with personal profiles can manage a page (Facebook, 2015 b). The data collected for this study is extracted from the main Facebook pages of the organizations I am analyzing, introduced below. The “News Feed” is a major feature of Facebook, serving as the main hub of Facebook activity. The News Feed is a constantly updated list of “stories” in the center of a home page. The News Feed includes status updates, photos, videos, links, app activity and likes from people, Pages and groups that a person can follow on Facebook (Facebook, 2015 c).

Facebook is a very visual site, so the News Feed is often dominated by images – whether they are posted by Facebook friends or just advertisements. Facebook enables many methods of

communication. One-on-one communications occurs when users make posts on each other's walls, comment on the wall posts of friends or pages, or send Facebook messages. The term "Like" was popularized through Facebook. A "Like" is a sign of appreciation of the activity of another user, whether it be a status update, a comment, photo, video, etc. Pages can also be "Liked," indicating a user is a fan of the overall page (in contrast to "Liking" a single post on the page) and wants to see its profile updates. In analysis of Facebook data, "page Likes" are distinguished from "Likes", although Facebook uses the term "Like" for both. Clicking Like below a post on Facebook is an easy way to let people know that the person enjoys the post without leaving a comment. Just like a comment, the fact that the person liked the post is visible below it. For example, if a person clicks Like below a friend's video:

- People who can see the video will be able to see that the person liked it
- A story will be posted on the person's Timeline that the person liked the friend's video
- The person who posted the video will get a notification that the other person liked it

According to Facebook, "when you like a page, you are making a connection... You may be displayed on the Page you connected to, in advertisements about the Page..." (Facebook, 2015 d). A general like applies to the content of a page, such as thoughts, pictures, and videos on the page. In addition to liking posts, users can "share" the Facebook posts of their friends or pages they like, meaning that post will come up in the newsfeeds of others. In addition, users may add a "personalized message" to the content that they are sharing (Facebook, 2015). Sharing allows users to be associated with that particular content, and often is a way of indirectly expressing personal views.

### *WHAT IS TWITTER?*

Twitter was created in March of 2006. It has become one of the fastest-growing social media websites, with over 316 million users (Twitter, 2015 a). In the article *Facebook vs. Twitter*, the author states that Facebook is for connecting with the people you went to school with and Twitter is for people you wished you had gone to school with. While Facebook is a multi-purpose social networking platform, allowing users to chat, post photos and notes, and play games, Twitter is built around the posting of short 140 character messages, or “tweets”(Diffen, 2015). A Tweet is an expression of a moment or idea. It can contain text, photos, and videos (Twitter, 2015 b). It is mainly used to communicate with other individuals with similar interests, regardless of whether users know one another off Twitter. Users can upload photos, share links and send private messages to people they follow. A user’s tweets are featured on their “profile”.

To associate a post with a particular “person, place, thing, or event,” a “hashtag” is used. A hashtag is any word or phrase with the # symbol immediately in front of it. This symbol turns the word into a link that makes it easier to find and follow a conversation about that topic. Twitter users themselves came up with the hashtag as a way to organize and find Tweets by topic. Using the #hashtag symbol before a keyword or phrase allows that word or phrase to show up in Twitter Search. Users may want to find out if the subject a person is tweeting about already has an established hashtag, and then join that existing conversation, or a person can create his or her own. Hashtags can show up at the beginning, middle or end of a Tweet (Twitter, 2015 c).

A “Twitter handle” is a Twitter username, indicated as @[username] in tweets. For example, the Dogwood Alliance’s Twitter handle is @DogwoodAlliance. In order to see another person or organization’s tweets, one must request to “follow” them. Twitter notes that

“following” someone means “subscribing to their tweets as a follower” and providing them the ability to “direct message” the “follower.” In addition, their tweets will appear on the follower’s Home Twitter feed (Twitter, 2015 d) If the request to follow is permitted, one is considered a “follower” of that Twitter page. Typically, organizations waive the setting that requires their permission for people to follow their page. The “Home” page on Twitter shows a “real-time list of tweets from those you follow.”

Another feature of Twitter is the “retweet”. A retweet is a re-posting of someone else's Tweet. Twitter's retweet feature helps a person and others quickly share a Tweet with all of that user’s followers. Sometimes people type “RT” at the beginning of a Tweet to indicate that they are re-posting someone else's content. This isn't an official Twitter command or feature, but signifies that they are quoting another user's Tweet. A retweet is the equivalent of a Facebook share. Another way to express approval of a tweet is to “favorite” it, similar to a Facebook like Twitter (Twitter, 2015 d).

#### *HOW ENVIRONMENTAL NONPROFITS USE SOCIAL MEDIA FOR ADVOCACY*

As the world has discovered through the grass-roots revolutions in Egypt and Tunisia — driven in part by messages on Twitter and Facebook—online social media can be powerful tools for spurring social change. And increasingly, both fledgling nonprofits and long-established charities are taking up those tools in issue advocacy (West, 2011). Facebook and Twitter are forms of outreach that are efficient and cost-effective. There is no cost to create an account or make a page; however, an organization can pay for advertising and to boost posts. An organization may eventually be able to cut down the cost of advertising when they gain a sufficient amount of social media followers, as these people essentially provide free advertisement by re-posting, commenting or “liking” a post.

Many of the United States' larger environmental organizations, like the Nature Conservancy and Sierra Club, started due to grassroots efforts. Social media can revitalize this grassroots activism as it appeals to the interest of individuals to become involved in an issue, and suggests that change can take place from a ground-up level (Bienkowski et al., 2013). Because of social media, participants of a movement do not have to be near each other as was the case with historical environmental grassroots activism. Social media enables easy communication and organizing across great distances. As discussed previously, social media presents a major opportunity for environmental organizations to redefine themselves with the public in a way that will be highly visible. Examining how environmental nonprofits take advantage of this new opportunity and how it reinforces or expands their missions and branding can shed light on a significant transition point in their organizational culture and story.

Turner and Shah, authors of *How to Make Money with Social Media: An Insider's Guide on Using New and Emerging Media to Grow Your Business*, refer to the 'social media magnetism' of online branding. They note, "If your brand has social media magnetism, it's so powerful that people are attracted to it the way metal is attracted to a magnet. Your brand is so powerful that people will go out of their way to be affiliated with your company, because it gives them a sense of style, cache and panache" (Turner and Shah, 2011). Turner and Shah provide a few tips about how to create a successful social media campaign, mainly focusing on the idea that social media sites of businesses must provide something valuable (2011). For example, they suggest traditional 'special promotions' as well as useful information, which can be used to bring people back to the social media sites repeatedly. However, environmental organizations are not seeking to sell a specific product, but might be seeking to increase new membership, highlight targeted policy campaigns, etc.

Nonprofit organizations' use of social media receives some examination as "Networked Nonprofits", which are "simple and transparent organizations...They engage people in shaping and sharing their work in order to raise awareness of social issues, organize communities to provide services, or advocate for legislation (Kanter and Fine, 2014)." Kanter and Fine also note that employing social media to create change is harder than it appears. Although sites like Facebook and Twitter are user-friendly and simple to use, this does not necessarily translate into an effective use of the tool (2014).

#### *NORTH CAROLINA ENVIRONMENTAL NONPROFITS ON SOCIAL MEDIA*

The following six organizations were chosen based on the following criteria. Their organizations had a minimum of 1,000 likes on Facebook and 1,000 followers on Twitter. They had consistent activity on both social media platforms and their organizations hold 501(c)(3) status in the state of North Carolina. Studying environmental nonprofits specifically allows a narrower focus on a select few organizations for more in-depth analysis. There have been several environmental nonprofits that are doing this successfully, by using Facebook "likes" as a guide, they are safeguarding species, habitat and the delicate balance of nature on our planet. While they may not all have the same number of followers, each group is an unquestionable force for spearheading sustainable change and delivering results.

#### ***Dogwood Alliance***

Dogwood Alliance (DA) mobilizes diverse voices to defend the unique forests and communities of the Southern US from destructive industrial forestry. In 1996, grassroots activists founded Dogwood Alliance in response to the devastating impacts that a major expansion of the US paper industry was having on Southern forests. As a direct result of

Dogwood's grassroots efforts, in 2000, federal agencies conducted the first-ever comprehensive analysis of forest sustainability in the South, which documented that the South is the largest paper-producing region in the world and confirmed the broad-scale ecological impacts of paper production on the region's forests. Despite these findings, government, both at the federal and state level, failed to develop policies to protect the region's forests. Determined to make a difference, Dogwood Alliance turned to the root of the problem – the consumption and production of paper – and, in 2000, initiated a strategy to green the US paper market (Dogwood Alliance, 2015).

Dogwood Alliance works with companies and consumers to change the way North Carolina forests are managed. Through a series of targeted marketplace campaigns, they help educate corporate leaders and increase consumer demand for products that come from sustainably managed forests, creating a winning solution for forest products producers, consumers, communities and the environment. The Dogwood Alliance has launched a major new campaign, *Our Forests Aren't Fuel*, supporting alternative and competitive energy sources like solar and wind while pressuring companies who stand to gain from burning of Southern forests for electricity to meet their "clean energy" targets (Dogwood Alliance, 2015).

### ***Audubon North Carolina***

The mission of the National Audubon Society's North Carolina State Office is to help conserve and restore the North Carolina habitats we share with all wildlife, focusing on the needs of birds. Audubon North Carolina (ANC) achieves its mission through a blend of science-based research and conservation, education and outreach, and advocacy. The National Audubon Society has its roots in North Carolina and its history has always been linked to a passionate concern for birds, other wildlife and their habitats. It was this concern that led to the



organization of the nation's first Audubon Society in 1886. In 1902, T. Gilbert Pearson organized the Audubon Society of North Carolina, which launched wildlife conservation in the state (Audubon North Carolina, 2015)..

The state office is currently located in Chapel Hill and there are field offices in Wilmington, Corolla and Boone. Today, the threats are far different from a century ago, but they are potentially greater in magnitude. Habitat loss and degradation because of human influences are the greatest threats to birds. Habitats for nesting, foraging, migration and wintering are essential, and the conservation of these areas is critical (Audubon North Carolina, 2015).

### ***Environment North Carolina***

Environment North Carolina (ENC) is a statewide, citizen-based environmental advocacy organization. They believe there's something special about North Carolina — something worth protecting and preserving for future generations. Whether it's watching for sea turtles at Cape Hatteras or taking in the views along the Blue Ridge Parkway, North Carolina's natural wonders enrich our lives in countless ways. Funded by supporters, they research the challenges confronting North Carolina's environment and educate the public about what's at stake. Through research reports, news conferences, interviews with reporters, op-ed pieces, letters to the editor and more, they raise awareness of environmental issues and promote sensible solutions. Their canvassers meet people where they are — in public places or door to door — raising awareness, recruiting new supporters and activists, and raising funds to support our work (Environment North Carolina, 2015).

### ***Appalachian Voices***

Appalachian Voices (AV) is an environmental non-profit committed to protecting the land, air and water of the central and southern Appalachian region, focusing on reducing coal's impact on the region and advancing our vision for a cleaner energy future. Founded in 1997, they have offices in Boone and Raleigh, North Carolina; Charlottesville and Wise County, Virginia; Whitesburg, Kentucky, and Knoxville, Tennessee. They produce a bi-monthly environmental news publication, *The Appalachian Voice*, with 61,000-copy distribution in a 9-state region (Appalachian Voices, 2015)..

Their mission is to bring people together to protect the land, air and water of central and southern Appalachia. They empower people to defend the region's rich natural and cultural heritage by providing them with tools and strategies for successful grassroots campaigns. Since the impacts of coal threaten Appalachia more than any other single source of pollution, they are committed to reducing coal's impact on the region and advancing our vision for a cleaner energy future (Appalachian Voices, 2015).

### ***North Carolina Coastal Federation***

The N.C. Coastal Federation (NCCF) empowers coastal residents and visitors from all walks of life to protect and restore the water quality and critically important natural habitats of the N.C. coast. For more than 30 years, the N.C. Coastal Federation has worked with people to safeguard the coastal rivers, creeks, sounds and beaches of North Carolina. Eight grassroots groups concerned with coastal issues formed the nonprofit organization in 1982 under the leadership of the federation's current executive director, Todd Miller. Although the Coastal Area Management Act had been in effect since 1974, the groups identified the need for a clearer vision for long-term coastal management (North Carolina Coastal Federation, 2015).

Soon after it formed in 1982, the federation rallied fishermen, environmentalists and scientists to oppose a proposal to strip-mine 120,000 acres of peat bogs between the Albemarle and Pamlico sounds. The project gained national attention, including coverage on the CBS Evening News and PBS's MacNeil-Lehrer Report. The proposal was defeated in 1984, and the Coastal Federation then worked for the passage of state rules that have effectively prohibited large-scale peat mining. Most of the areas that were formerly targeted for peat mining are now permanently preserved in national wildlife refuges. Since its grassroots formation in 1982 the federation is the North Carolina's only 501(c)(3) non-profit organization that focuses exclusively on protecting and restoring the coast of North Carolina through education, advocacy and habitat preservation and restoration (North Carolina Coastal Federation, 2015).

### ***Clean Water for North Carolina***

Since 1984 Clean Water for North Carolina (CWFNC, formerly the Clean Water Fund of North Carolina) has worked for clean, safe communities and workplaces with hundreds of communities and thousands of North Carolinians. CWFNC is a private non-profit membership organization serving residents across the state of North Carolina (Clean Water for North Carolina, 2015).

CWFNC researches environmental problems, analyzes public policy, and educates and empowers people to be confident and active in their communities. They spearhead statewide action and help local communities develop strategies to address threats to their environment and health. Clean Water for North Carolina's mission is to promote clean, safe water and environments and empowered, just communities for all North Carolinians through community organizing, education, advocacy and technical assistance. Their vision is clean, safe, accessible

water for all North Carolinians, protected by empowered, educated citizens and a publicly accountable government and economy (Clean Water for North Carolina, 2015).

## RESEARCH QUESTIONS

When examining social media, there are a number of questions that can be explored. However, I would like to focus my research on a few overarching questions:

1. What are the goals of the social media sites? For example, are they being used to increase membership, funding, or general awareness of environmental issues?

Understanding the goals of social media use by environmental nonprofits is a critical aspect of this research. The data could provide a snapshot of which I can examine the content of posts and tweets to attempt to understand how their content furthers the organization's aims. I expect that giving and donations would be one of the main drivers of social media use. Social media enables organizations to quickly and effectively reach an audience of millions, thereby increasing audience and mass of potential donors. In addition, I believe environmental nonprofits are using Facebook and Twitter an avenue to increase branding and organizational awareness to new audiences. They may be doing this while simultaneously sharing information specific to environmental issues and messages.

1. What type of content is being tweeted and posted, and what is prevalence of those tweets/posts? What are the similarities and differences in these types of tweets/posts, and how does that content vary from organization to organization?

I intend to analyze the nature and framing of messages, what issues are given more attention and content focus. I would like to discover whether the environmental nonprofits in my study are using social media in different ways or if their activity seems relatively undistinguished from each other. By exploring the nature of the organizations posts/tweets will allow me to see whether they are all using the same strategies to attract this audience or if they are being more innovative and singular in their approach. I hypothesize that environmental nonprofits will vary in approach and subject matter. I am interested in analyzing which nonprofits are more similar to each other in content type and how that content and message differs over social media platforms.

2. How do the organizations' Facebook and Twitter pages compare in terms of user engagement through likes, favorites, retweets, shares, and comments?

By assessing the level of engagement it can give a clearer picture as the overall success of the message and approach of communication. The content of posts and tweets may play a role in determining what type of engagement social media users partake in. Perhaps some organizations have more shares/retweets than others, while others have more likes/favorites. Are some organizations creating posts and tweets that are more likely to be shared? I would like to compare how organizations' number of friends/followers is related to engagement. I posit several organizations' social media pages would have higher rates of engagement than others. I also speculate that there is a correlation between Facebook pages with the most overall page likes/Twitter accounts with the most followers and higher engagement rates on individual posts and tweets.

## METHODS

My research included an analysis of the Facebook and Twitter pages of the aforementioned organizations. The social media activity was measured using three dimensions—presence; , volume, and dialogue—which collectively tap whether and to what extent the nonprofit organizations use social media, specifically Facebook and Twitter, to engage the public. I examined Facebook posts during the month of January and Twitter posts beginning from January 26<sup>th</sup> – February 15<sup>th</sup>, 2014. I limited the scope of my Twitter analysis to one week because organizations characteristically make numerous posts daily on Twitter, providing sufficient opportunity for analysis. I chose the week of the 2<sup>nd</sup> – the day of the Dan River Coal Ash Spill to better assess how the environmental organizations responded to an environmental crisis via social media. On February 2, 2014, tens of thousands of tons of coal ash and 27 million gallons (100,000 cubic meters) of contaminated water spilled into the Dan River near Eden, NC from a closed North Carolina coal-fired power plant that is owned by Duke Energy. It is currently the third worst coal ash spill ever to happen in the United States (.

I gathered two sets of data. First, I gathered detailed Twitter data. Twitter has an open application programming interface (API), and is arguably the world's premier message network (Lovejoy & Saxton, 2012). Twitter is well suited to advocacy work, and broadly serves as a proxy for organizations' overall social media use. Google script was written to access the Twitter API and download all Twitter activity for the organizations from January 26<sup>th</sup> – February 15<sup>th</sup>, 2014. Secondly, I gathered Facebook data. Facebook is more difficult to capture data from, it does not allow for the same ease of use, of this reason I had to manually collect data from each organization's Facebook page by accessing their wall, and locating posts from 2014 during that time period. I then captured the data and transferred it to a database.

I then performed a comparative analysis of Facebook posts and Tweets based on multiple elements:

### *ANALYTICS*

Numerical data includes the number of Facebook posts and tweets, retweets, favorites, likes, shares, comments, multimedia and website links. Links were only counted if they lead to a webpage owned by the organization. This did not have to be the main website, but could link to a blog or tumblr site, any site owned by the organization.

**CODING RUBRIC**

After the posts and tweets were aggregated I then using a coding rubric to assign subject matter, motivation and category using specific keywords and phrases.

<b>SUBJECT MATTER</b>	<b>Keywords/Phrases</b>
Climate Change	Global warming, climate change, extreme weather
Energy	Fossil fuels, renewable energy, green, sustainable, solar
Fracking	Fracking, frack
Land Conservation	A specific place listed
Coastal Protection	Coastal, protection, protect, beaches
Resource Conservation	Preserve, conserve, water, air, quality
Coal Ash Spill	Coal ash, spill, dan river, contaminated water
Wildlife Conservation	Species protection, endangered, threatened wildlife, conservation
Other	Subjects that did not fit the above keywords/phrases
<b>CATEGORY</b>	
Personal	Non-political behavior, habit changing, contest, workshop, etc.
Political	Contact official, letter writing, politically engaged
Informational	Facts, Tips, Information about issue
News	Current event and updates
Other	Any category that did not fit the above keywords/phrases
<b>MOTIVATION</b>	
Positive	Encouraging news
Negative	Discouraging news/information, environmental problem/issue
Neutral	Did not focus on specific positive or negative information
Both	Contains both positive and negative information



## *SUBJECT MATTER*

A topic was defined as a subject of a particular social media post. I determined the topic of a post by keywords and hashtags. In situations where the topic of a post was unclear, I examined the corresponding link for further clarification. I identified the following topics:

1. Climate Change – Tweets and posts that contained direct references to climate change, including keywords such as “global warming” and “extreme weather”.
  - a. Example from ENC Twitter 1/27/2014: “If even Exxon acknowledges climate change is real, shouldn’t Congress? <http://bit.ly/1iEbaWr>”
  
2. Energy – Tweets and posts which refer to types of energy sources, energy conservation, including keywords such as “fossil fuels,” “sustainability,” “renewable energy” and “green”.
  - a. Example for AV Twitter 2/4/2014: “The US Senate just passed the Farm Bill, which includes programs to expand #energy efficiency in rural communities. <http://ow.ly/thteR>”
  
3. Fracking – Tweets and Posts concerned with hydraulic fracturing, include keywords “fracking,” “frack.”
  - a. Example from CWFNC Facebook on 1/28/2014: “Discussion of fracking in the western part of our state has spurred a lot of questions. If you haven't

read this column by John Boyle then be sure to take a look!

<http://ow.ly/t2coj> Pictured: Black Mountain, NC”

4. Land Conservation: Tweets and posts that express a desire to protect a specific place.
  - a. Example for DA Facebook on 2/6/2014: “Stand up for what you believe in, and chances are you WON'T be alone! Help us save North Carolina's Hofmann Forest! <http://www.dogwoodalliance.org/?p=5736>”
  
5. Coastal Protection: Tweets and posts related to protecting North Carolina’s coastal areas.
  - a. Example from NCCF Twitter on 1/30/2014: “NC Coastal regulators studying new approaches to managing NCs eco and politico sensitive inlets #ncga #ncpol <http://www.nccoast.org/m/article.aspx?k=18c80f28-b0b8-4016-82f9-9469500e3d73> ...”
  
6. Resource Conservation: Posts and tweets that are concerned with preserving natural resources like water and air, include keywords such as “preserve,” “conserve,” “water,” “air,” and “quality.”
  - a. Example from Dogwood Alliance Twitter 2/6/2014: “Trees Are Our #Climate Saviors - So Stop Logging on Public Land <http://bit.ly/1aZuQl2> via @HuffPostGreen”

7. Coal Ash Spill: Tweets and posts that discuss the coal ash spill that occurred in on February 2nd, keywords include “coal ash,” “spill,” “contaminated water”, “Dan River.”
  - a. Example from CWFNC Facebook 2/14/2014: “Kevin Siers' cartoon brings it home: NC needs to stop shielding its largest utility from taking responsibility for #coalash pollution, and start holding Duke accountable!”
8. Wildlife Conservation: Tweets and posts that discuss “species protection.” “endangered species,” “wildlife conservation.”
  - a. Example from ANC Facebook 1/27/2014: “LEGAL VICTORY FOR BIRDS: The U.S. Ninth Circuit Court of Appeals rejected the U.S. Department of the Interior's Arctic Ocean oil lease sales, great news for Spectacled Eiders and other wildlife! Audubon and other groups have been fighting this battle in the courts.”

### *CATEGORY*

Categories are a broad description of a post or tweet’s main intent – the main points the organization wants its social media audiences to come away with.

- Personal - Posts and tweets that advocate a non-political behavior, such as changing a habit or advertising a contest.
  - Example from ENC Facebook 2/14/2014: “We'd also like to share our love of the Outer Banks! LIKE and SHARE if you could use some beach time after this storm!”

- Political - Posts and tweets that ask the audience to become politically engaged by contacting a political official or promoting specific legislation.
  - Example from AV Twitter 2/17/2014 : “Take action to ensure, in @PatMcCrorryNC's words, "This never happens again in North Carolina." [http://appvoices.org/rww/stopthepill/ ...](http://appvoices.org/rww/stopthepill/)”
- Other: Posts and tweets that have an unclear category.
  - Example fro NCCF Twitter 2/10/2014: “Our Coast: Kayaking Ocracoke in Winter [http://www.nccoast.org/m/article.aspx?k=ffc21481-1028-4366-9b52-2c8fc460ee33 ...](http://www.nccoast.org/m/article.aspx?k=ffc21481-1028-4366-9b52-2c8fc460ee33)”
- Informational: Posts and tweets that inform about an issue or current event or provide facts and tips.
  - Example from AV Facebook 2/4/2014: “Representatives from the EPA are holding a public meeting TUESDAY from 6:30 - 8 p.m. in Danville to provide an update on the Dan River coal ash disaster and answer questions (we hope)! City of Danville Municipal Building, City Council Chambers, 4th floor, 427 Patton Street. Here's what the river looks like today ...”
- News: Posts and tweets that discuss current events and news updates.
  - Example from ENC Facebook 2/14/2014: “Over 800 schoolchildren from Hong Kong got together to call for protection of the ocean environment. Look at what they did!”

## *MOTIVATION*

“Motivation” is based on the content of the post or tweet, and the type of issue in particular that is being assessed. There are four types of focus: Negative, Positive, Neutral, and Both (Negative and Positive present).

- Positive: Posts and tweets that discuss encouraging news
  - Example from NCCF Twitter 1/29/2014: “Shellabrate NC Oysters C'mon! There's a party going on around here a shell-a-bration 2 last thru out the year <http://nccoast.org/m/article.aspx?k=ebee01b5-268c-41fc-b520-b55c54762076> ...”
- Negative: Posts and tweets with discouraging news/information or that point to an environmental problem.
  - Example from AV Twitter 2/7/2014: “Environmentalists say N.C. river is ‘toxic soup’ after coal ash spill via @AJAM <http://alj.am/1iyMY4E>”
- Neutral: Posts and tweets that do not focus on positive or negative information.
  - Example from NCCF Facebook 2/1/2014: “Check out what's going on in the Southeast region in early 2014, including a 'Shored Up' film screening, snow and volunteer renovation days at the Coastal Education Center.”
- Both: Posts and tweets that include both positive and negative information.
  - Example from ENC Facebook 2/6/2014: “What countries are most responsible for global warming? A new report attempts parcel out the answer by degree. The US and China lead the way. That's why it's up to us to lead the way and solve the problem. <http://bit.ly/1bgfUtF>”

## *MULTIMEDIA*

Multimedia can include text, graphics, audio, animation and video. It refers to techniques such as podcasts, webinars, streaming and live web chats. For the purpose of my analysis, I consider multimedia to be images and videos. In my classification of what constitutes an image, they had to have been added by the organizations to their posts. I did not include preview images or thumbnails that are automatically assigned to links. When classifying a post as containing a video, it must be able to be directly played on the organizations' Facebook pages, as opposed to being accessed through a link.

Research has shown that tweets with images receive more engagement, but how much more engagement depends on the quality of the images and if they are properly sized for Twitter. If a nonprofit is committed to maximizing engagement on Twitter, then they must create visually compelling call-to-action images for fundraising and advocacy campaigns (McGurk, 2014).

## FINDINGS AND ANALYSIS

### ENGAGEMENT

#### *WHAT IS SOCIAL MEDIA ENGAGEMENT?*

In *Defining Engagement*, Jason Falls, defines engagement as “communicating well enough that the audience pays attention (2014).” This definition shows the importance of why nonprofits need to create valuable content for their social community and present it in a way that works for that social network. In simpler terms, engagement is a two-way conversation.

#### *HOW SOCIAL MEDIA NETWORKS MEASURE ENGAGEMENT*

Each social media network defines engagement a little bit differently based on the features and functionality of their platform. It's important to understand how they measure

engagement for an organization to measure the impact your social media marketing is having on a nonprofit (McGurk, 2014).

- Facebook defines engagement as likes, comments and shares.
- Twitter defines engagement as @replies, retweets and mentions.

It's important to understand what each social network is measuring and how to interpret their insights and analytics.

As previously discussed, a Facebook "like" is the basic show of support for a page or its activities. I distinguish a "page like" as a like of a Facebook page as a whole (the equivalent to following the page), whereas a general like pertains to the content of an organization's page. I recorded the total number of page like search organization had as of October 16<sup>th</sup>, as illustrated below in Table 1. Out of the study, Appalachian Voices had the most Facebook likes with over 22,900, followed by Audubon North Carolina with 15,600, North Carolina Coastal Federation with 11,100, Dogwood Alliance with 7,300, Environment North Carolina with 4,100, Finally, Clean Water for North Carolina with the lowest number of followers at 2,800.

**Table 1. Facebook Page Likes as of October 16th, 2015  
(Rounded to the Nearest 100th)**

<b>Organization</b>	<b># of Page Likes</b>	<b># of Members**</b>
Dogwood Alliance	7,300	50,000
Audubon North Carolina	15,600	15,000
Environment North Carolina	4,100	40,000
Appalachian Voices	22,900	889
North Carolina Coastal Federation	11,100	10,000
Clean Water for North Carolina	2,800	200

\*\* Membership data obtained from each organization, personal communication.

On Twitter, the number of followers a page has is typically a measurement of its overall popularity on Twitter. Table 2 features the number of Twitter followers of each organizations' page on October 16<sup>th</sup>, 2015. Appalachian Voices has the most popular Twitter page of the seven organizations, with over 6,000 followers. This is somewhat comparable to their performance on Facebook (Table 1). It is clear that the Appalachian Voices is dominant on Twitter compared to the other organizations. Environment North Carolina's Twitter page is the second most popular, yet it has less followers than Appalachian Voices. However, closely behind Environment North Carolina is Dogwood Alliance, which has more Facebook followers. The remaining organizations on Twitter reflect positions similar to their following on Facebook in that they are less popular than the other organizations just based on overall support of the page through page likes and follows.



**Table 2. Twitter Followers as of October 16th, 2015**

<b>Organizations</b>	<b># of Followers</b>	<b># of Members**</b>
Dogwood Alliance	2,214	50,000
Audubon North Carolina	1,613	15,000
Environment North Carolina	2,296	40,000
Appalachian Voices	6,390	889
North Carolina Coastal Federation	1,626	10,000
Clean Water for North Carolina	1,168	200

\*\* Membership data obtained from each organization, personal communication.

### *ACTIVITY-SPECIFIC SUPPORT*

#### *LIKES AND FAVORITES*

The number of likes a Facebook post receives implies that users appreciate and support what they read and/or see. For each organization, I chronicled the total posts From January 26<sup>th</sup> – February 15<sup>th</sup>, 2014 made by each organization and calculated the average number of daily posts in Table 3. To calculate the average number of daily posts, I used the formula average posts per day = total posts from January 26<sup>th</sup> – February 15<sup>th</sup> /20. I also included the total number of likes for all of the organizations’ posts and average likes per post rounded to the nearest whole for posts made during that time period. To calculate the average likes per post, I used the formula: total post likes/total posts.

Appalachian Voices received the most likes on their posts, but had fewer total posts than other organizations. North Carolina Coastal Federation, Clean Water for North Carolina and Environment North Carolina, all generated similar numbers, with their average likes per post in the 10 to 15 range. Despite having the most posts out of all the organizations in my study, Clean

Water for North Carolina has the lowest average of likes per post when compared to the other environmental organizations in my research.

**Table 3. Facebook Post Likes, January 26<sup>th</sup> – February 15<sup>th</sup>, 2014**

<b>Organization</b>	<b>Total Posts</b>	<b>Average Posts Per day</b>	<b>Total Posts Likes</b>	<b>Average Likes Per Post</b>
Dogwood Alliance	5	0.25	238	47.6
Audubon North Carolina	5	0.25	122	24.4
Environment North Carolina	8	0.4	106	13.3
Appalachian Voices	7	0.35	356	50.9
North Carolina Coastal Federation	4	0.2	47	11.8
Clean Water for North Carolina	12	0.6	120	10.0

Favorites are the Twitter version of likes. Table 4 displays the total tweets and the average of tweets per day. I calculated the average tweets per day by dividing the total tweets of each organization by twenty, which is the number of days for which I study their tweets. In addition, the table includes total favorites and average favorites per post during the period of my Twitter analysis. Appalachian Voices provides the most opportunities for favorites with an average of 4 tweets per day. In return, they receive the highest total favorites during the week with 1.8 favorites per tweet. Following closely behind Appalachian Voices is the Dogwood Alliance with an average of 3 tweets per day. It appears that the organizations that tweeted more often during the days sampled tended to have more favorites overall.

**Table 4. Twitter Favorites, January 26<sup>th</sup> – February 15<sup>th</sup>, 2014**

<b>Organization</b>	<b>Total Tweets</b>	<b>Average Tweets Per day</b>	<b>Total Favorites</b>	<b>Average Favorites per Tweet</b>
Dogwood Alliance	52	3	12	0.2
Audubon North Carolina	18	1	10	0.6
Environment North Carolina	38	2	27	0.7
Appalachian Voices	86	4	151	1.8
North Carolina Coastal Federation	29	2	7	0.2
Clean Water for North Carolina	44	2	14	0.3

Generally speaking, more value is placed on shares and retweets over likes and favorites. This is because shares and retweets make that organizations’ social media activity more easily seen by others who may not have liked or followed the organizations’ Facebook and Twitter or are unaware of the organizations. Such activity could encourage more attention to their social media platforms. Shares and retweets become part of a person’s own social media page, and thus are visible to all of their friends and followers.

Sometimes, likes may show up in the main Facebook newsfeed, but not nearly as much as shares. Similarly, a retweet of another Twitter user is added to a user’s profile, whereas a favorite is not. Table 5 includes the average daily shares and total shares for January 26<sup>th</sup> – February 15<sup>th</sup>, 2014. Average daily shares were calculated by dividing the total number of shares

of content by twenty days in which I conducted by study. I once again include the total Facebook posts and average Facebook posts per day for comparison purposes. In addition to having the highest average likes (featured in Table 3) of the organizations, Appalachian Voices also has the highest number of shares. In that time period, its Facebook posts were shared nearly 200 times. The only organization with the number of total shares closest to Appalachian Voices is Environment North Carolina with 50 shares – which are 25% less than Appalachian Voices. The average shares of Appalachian Voices’ were four times larger than the other organization’s average shares.

Despite having the most post output in terms of total shares per posts for that time period, Clean Water for North Carolina had one of the lowest average shares per post. This is intriguing, because while Clean Water for North Carolina posted more, Appalachian Voices was shared exponentially more than Clean Water for North Carolina, which may be related to the type of content they are posting. This could be evaluated further using an A/B test.

**Table 5. Facebook Post Shares, January 26<sup>th</sup> – February 15<sup>th</sup>, 2014**

<b>Organization</b>	<b>Total Posts</b>	<b>Average Posts Per day</b>	<b>Total Shares</b>	<b>Average Shares Per Post</b>
Dogwood Alliance	5	0.25	20	4.0
Audubon North Carolina	5	0.25	25	5.0

Environment North Carolina	8	0.4	50	6.3
Appalachian Voices	7	0.35	213	30.4
North Carolina Coastal Federation	4	0.2	2	0.5
Clean Water for North Carolina	12	0.6	13	1.1

Table 6 reflects the total retweets and average retweets per tweet during January 26<sup>th</sup> – February 15<sup>th</sup>, 2014. For clarification, the table examines how many times the organizations’ tweets were re-tweeted by others, as opposed to the number of tweets by the organizations, which were retweets. The average retweets per post was calculated by dividing the total retweets by the total of tweets. Unlike its Facebook share rate, Appalachian Voices average retweets rate is slightly greater than Environment North Carolina. Its tweets were retweeted by other Twitter users an average of 6.3 times, almost thrice Environment North Carolina, which had an average of 2.2. Additionally, even though Dogwood Alliance had almost twice the total tweets than Audubon North Carolina, Audubon North Carolina had a higher average number of retweets at 1.1.

**Table 6. Twitter Retweets, January 26<sup>th</sup> – February 15<sup>th</sup>, 2014**

<b>Organization</b>	<b>Total Tweets</b>	<b>Average Tweets Per day</b>	<b>Total Retweets</b>	<b>Average Retweets per Tweet</b>
Dogwood Alliance	52	3	30	0.6
Audubon North Carolina	18	1	19	1.1

Environment North Carolina	38	2	84	2.2
Appalachian Voices	86	4	546	6.3
North Carolina Coastal Federation	29	2	19	0.7
Clean Water for North Carolina	44	2	35	0.8

## TWEET AND FACEBOOK CONTENT

### *SUBJECT MATTER ANALYSIS*

Tables 7 and 8 feature the prevalence of the subject matter I defined in my methods section. Note that “Prev” refers to prevalence. Some Facebook and Twitter posts were designated as having multiple topics, so the percentage is calculated based on the frequency at which the topics are found as opposed to the overall number of posts. I calculated the percentage through this equation: (prevalence of topic)/(total prevalence of all topics). Note that the “Overall” data, combines the data for all of the environmental organizations I researched. The “prev” is the total of the posts/tweets of the categories among all of the organizations. The overall percentage rates are the average of percentages at which each classification is prevalent for the respective organizations. In order of decreasing overall percentage, fracking, energy, coal ash, and coastal conservation were the dominant topics on Facebook. Energy, coal ash, and fracking (in order of decreasing overall percentage) appeared most often among all of the organizations’ tweets. It is apparent that overall, the organizations discuss approximately the same topics on each forum. The largest gap for the most popular topics is for coal ash, which has a 10 percent difference between its prevalence on Twitter versus Facebook. The overall percentage of the “other” topic for tweets was much lower than for Facebook posts. This may be due to Twitter having a 140 character limit for content. Agriculture, wildlife conservation, and land

conservation (in order of increasing prevalence) were the least prevalent on Facebook. Similarly, the same topics came up the least when analyzing the overall prevalence percentages.

It is surprising to see that all of the organizations Facebook posts and tweets combined only discussed that climate change was such a small percentage, considering the recent media storm surrounding the topic. I also expected the Dan River coal ash spill to be more popular among all the organizations' Facebook posts and tweets as a major ongoing environmental disaster. The Dogwood Alliance's tweets mainly concerned energy and biomass, which comprised 42.3 percent of the topics that appeared in their tweets (Table 7), but did not mention it at all on Facebook. The prevalence of social media activity related to energy is unsurprising given the mission and history of the organization. On twitter, the second most posted subject matter by Dogwood Alliance was resource conservation with about 21 percent, then land conservation with approximately 14 percent. On Facebook, resource conservation was the most prevalent topic with 40 percent, while climate change and land conservation tied with 20 percent. Out of all the organizations, Dogwood Alliance's Twitter contained the highest proportion of tweets referring to biomass and energy, which on average, had an overall appearance rate of 20 percent. Curiously, the Dogwood Alliance did not mention coal ash on either of its platforms at all.

When compared to the overall profile of all of the organizations, Appalachian Voices' Facebook and Twitter activity stood out during the week of analysis. On Facebook, Appalachian Voices coal ash themed posts represented only 4 percent of its subject matter; however, on Twitter AV discussed coal ash 48 percent, which was the highest of all the organizations. However, they only discussed the coal ash spill four times on Facebook. I infer that they discussed the spill more on Twitter because it is easier to live tweet directly from the event.

However, I think it is important that they post to both platforms because they did have the most followers and likes on Twitter and Facebook. However, one subject matter to note is that Appalachian Voices live-tweeted the most in regards to the State of the Union Address in January 2014, and tended to have more politically themed and social justice tweets. Another item of note is that several of the organizations tweeted about the “Moral Monday March” which was a large gathering in downtown Raleigh of organizations and people from a number of different political and social issues.

Not surprisingly, coastal conservation made up the largest portion of content by the North Carolina Coastal Federation in both Facebook and Twitter with 39 percent and 41 percent, respectively. However the second largest prevalence of content was in the other category, which consisted of photos and personal stories of citizens. Audubon North Carolina was the least diverse in regards to subject matter. Their tweets and posts focused mainly on wildlife conservation with 28 percent on Twitter and 100 percent on Facebook. They did have the highest prevalence of wildlife conservation off all the organizations. Clean Water for North Carolina had the most diverse spread of subject matter, posting content about all of the subject matters on Facebook and most of them on Twitter. They ranked highest in fracking prevalence with 43 percent on Twitter and tied with Environment North Carolina on Facebook with 27 percent. Environment North Carolina ranked highest on Facebook in regards to energy prevalence with 33 percent.



**Table 7. Twitter Subject Matter Prevalence**

	DA		ANC		AV		CWNC		NCCF		ENC		Overall	
	Prev	%	Prev	%	Prev	%	Prev	%	Prev	%	Prev	%	Prev	%
Climate Change	6	11.5%	0	0.0%	6	7.0%	1	2.3%	0	0.0%	8	21.1%	21	7.9%
Energy	22	42.3%	0	0.0%	12	14.0%	8	18.2%	0	0.0%	13	34.2%	55	20.6%
Fracking	1	1.9%	0	0.0%	1	1.2%	19	43.2%	0	0.0%	12	31.6%	33	12.4%
Land Conservation	7	13.5%	0	0.0%	0	0.0%	1	2.3%	4	13.8%	0	0.0%	12	4.5%
Coastal Conservation	0	0.0%	0	0.0%	0	0.0%	0	0.0%	12	41.4%	0	0.0%	12	4.5%
Agriculture	1	1.9%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	0.4%
Resource Conservation	11	21.2%	0	0.0%	2	2.3%	5	11.4%	0	0.0%	1	2.6%	19	7.1%
Coal ash	0	0.0%	0	0.0%	41	47.7%	8	18.2%	2	6.9%	0	0.0%	51	19.1%
Wildlife Conservation	1	1.9%	5	27.8%	0	0.0%	0	0.0%	2	6.9%	0	0.0%	8	3.0%
other	3	5.8%	13	72.2%	24	27.9%	2	4.5%	9	31.0%	4	10.5%	55	20.6%
Totals	52	100.0%	18	100.0%	86	100.0%	44	100.0%	29	100.0%	38	100.0%	267	100.0%

**Table 8. Facebook Subject Matter Prevalence**

	DA		ANC		AV		CWNC		NCCF		ENC		Overall	
	Prev	%	Prev	%	Prev	%	Prev	%	Prev	%	Prev	%	Prev	%
Climate Change	1	20.0%	0	0.0%	0	0.0%	1	9.1%	0	0.0%	2	25.0%	4	10.0%
Energy	0	0.0%	0	0.0%	1	14.3%	2	18.2%	0	0.0%	2	25.0%	5	12.5%
Fracking	0	0.0%	0	0.0%	0	0.0%	3	27.3%	0	0.0%	0	0.0%	3	7.5%
Land Conservation	1	20.0%	0	0.0%	0	0.0%	4	36.4%	1	25.0%	0	0.0%	6	15.0%
Coastal Conservation	0	0.0%	0	0.0%	0	0.0%	5	45.5%	1	25.0%	1	12.5%	7	17.5%
Agriculture	0	0.0%	0	0.0%	0	0.0%	6	54.5%	0	0.0%	0	0.0%	6	15.0%
Resource Conservation	2	40.0%	0	0.0%	0	0.0%	7	63.6%	1	25.0%	0	0.0%	10	25.0%
Coal ash	0	0.0%	0	0.0%	4	57.1%	8	72.7%	0	0.0%	1	12.5%	13	32.5%
Wildlife Conservation	0	0.0%	5	100.0%	0	0.0%	9	81.8%	0	0.0%	0	0.0%	14	35.0%
other	1	20.0%	0	0.0%	2	28.6%	10	90.9%	1	25.0%	2	25.0%	16	40.0%
Totals	5	100.0%	5	100.0%	7	100.0%	11	100.0%	4	100.0%	8	100.0%	40	100.0%

### *CATEGORY ANALYSIS*

Tables 9 and 10 summarize data on the categories I assigned for Facebook posts and tweets. The category percentages are calculated as:  $(\text{prevalence of category}) / (\text{total prevalence of all categories})$ . To find the overall frequency to which categories appeared, I just added their frequencies for the individual organizations. The overall average is calculated by averaging the rates at which categories appeared in the organizations' posts and tweets. Among all six organizations, news, political, and informational (decreasing order) were the most prominent on Twitter and informational, political and personal (decreasing order) for Facebook. Most of the organizations had a similar trend, individually. Approximately 33 percent of the overall Facebook posts offered information. However, a smaller portion of the tweets, 17 percent, offered information. Political was the second most common category overall with 21 percent on Twitter and 30 percent on Facebook. Personal content composed a larger portion of Facebook posts with 28 percent and only 16 percent for Twitter. Both Clean Water for North Carolina and the Dogwood Alliance's posts and tweets were heavily news-based making up over 60 percent of their total content. However, both organizations had less than ten percent of their total content be news related on Facebook. In contrast, Audubon NC and NC Coastal Federation had a larger portion of their content be more personal in nature on Twitter. Appalachian Voices and Environment North Carolina both contributed a significant amount of their content to politically driven messages on Twitter and Facebook.

**Table 9. Twitter Category Prevalence**

Twitter	DA		ANC		AV		CWNC		NCCF		ENC		Overall	
	Prev	%	Prev	%	Prev	%	Prev	%	Prev	%	Prev	%	Prev	%
Political	3	5.8%	1	5.6%	24	27.9%	5	11.4%	6	20.7%	18	47.4%	57	21.3%
Personal	7	13.5%	11	61.1%	13	15.1%	1	2.3%	10	34.5%	0	0.0%	42	15.7%
Other	1	1.9%	0	0.0%	1	1.2%	0	0.0%	0	0.0%	0	0.0%	2	0.7%
Informational	5	9.6%	6	33.3%	13	15.1%	11	25.0%	4	13.8%	6	15.8%	45	16.9%
News	36	69.2%	0	0.0%	35	40.7%	27	61.4%	9	31.0%	14	36.8%	121	45.3%
Totals	52	100.0%	18	100.0%	86	100.0%	44	100.0%	29	100.0%	38	100.0%	267	100.0%

**Table 10. Facebook Category Prevalence**

Facebook	DA		ANC		AV		CWNC		NCCF		ENC		Overall	
	Prev	%	Prev	%	Prev	%	Prev	%	Prev	%	Prev	%	Prev	%
Political	2	40.0%	1	20.0%	2	28.6%	4	36.4%	0	0.0%	3	37.5%	12	30.0%
Personal	1	20.0%	3	60.0%	1	14.3%	3	27.3%	1	25.0%	2	25.0%	11	27.5%
Other	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Informational	2	40.0%	1	20.0%	2	28.6%	3	27.3%	3	75.0%	2	25.0%	13	32.5%
News	0	0.0%	0	0.0%	2	28.6%	1	9.1%	0	0.0%	1	12.5%	4	10.0%
Totals	5	100.0%	5	100.0%	7	100.0%	11	100.0%	4	100.0%	8	100.0%	40	100.0%

## *MOTIVATION ANALYSIS*

Unlike for subject matter and categories, I classified each post and tweet as having a single focus. Therefore, the formula I used to calculate the percentages for Facebook and Twitter information goes as follows: (prevalence of topic /number of Facebook posts). For Twitter, I used the formula (prevalence of topic /number of Twitter posts) to calculate the percentage of tweets that pertained to a particular motivation. The Twitter and Facebook motivation data are recorded in Tables 11 and 12, respectively. It is evident that a majority of posts and tweets have neutral motivation. The overall Facebook activity of the organizations indicates they write positive and neutral tweets more than other types of tweets (Table 12). However, on Twitter there is somewhat more emphasis on neutral and positive tweets, which represented nearly half of all the tweets (Table 11). Posts containing both a positive and negative were less frequent on Facebook, while positive tweets comprised the smallest number with 21 percent.

Audubon NC comprised the highest percentages of positive tweets and Facebook posts with 66 and 60 percent, respectively. Appalachian Voices and Clean Water for North Carolina appear to put more negative emphasis on tweets versus Facebook posts. However, both organizations did equally contribute tweets to all four categories. The North Carolina Coastal Federation tended to lean towards more neutral motivation. Neutral tweets comprised 38 percent of their overall content on Twitter, and 50 percent on Facebook. However, they did have more negative tweets than negative Facebook Posts. Overall, it appears that the organizations tended more towards neutral and positive tweets and Facebook posts. In *Social Media Tips for Nonprofits* they recommend focusing on the positive (2013). As well as broadcasting about events, campaign activities and fundraisers, content should be upbeat and positive. Nonprofits shouldn't shy away from using humor in some posts and communications. Social media at its core, is meant to be fun, after all. Focusing on the positive outcomes while

addressing the negatives, and revisiting the core beliefs of the organization will help nonprofits avoid discouragement or burnout.

**Table 11. Twitter Motivation Prevalence**

	DA		ANC		AV		CWNC		NCCF		ENC		Overall	
	Prev	%	Prev	%	Prev	%	Prev	%	Prev	%	Prev	%	Prev	%
Positive	15	28.8%	12	66.7%	9	10.5%	6	13.6%	9	31.0%	4	10.5%	55	20.6%
Negative	12	23.1%	0	0.0%	25	29.1%	14	31.8%	5	17.2%	5	13.2%	61	22.8%
Neutral	13	25.0%	6	33.3%	30	34.9%	10	22.7%	11	37.9%	17	44.7%	87	32.6%
Both	12	23.1%	0	0.0%	22	25.6%	14	31.8%	4	13.8%	12	31.6%	64	24.0%
Totals	52	100.0%	18	100.0%	86	100.0%	44	100.0%	29	100.0%	38	100.0%	267	100.0%



**Table 12. Facebook Motivation Prevalence**

	DA		ANC		AV		CWNC		NCCF		ENC		Overall	
	Prev	%	Prev	%	Prev	%	Prev	%	Prev	%	Prev	%	Prev	%
Positive	2	40.0%	3	60.0%	1	14.3%	3	27.3%	0	0.0%	3	37.5%	12	30.0%
Negative	0	0.0%	2	40.0%	0	0.0%	1	9.1%	1	25.0%	0	0.0%	4	10.0%
Neutral	3	60.0%	0	0.0%	6	85.7%	5	45.5%	2	50.0%	4	50.0%	20	50.0%
Both	0	0.0%	0	0.0%	0	0.0%	2	18.2%	1	25.0%	1	12.5%	4	10.0%
Totals	5	100.0%	5	100.0%	7	100.0%	11	100.0%	4	100.0%	8	100.0%	40	100.0%

### *WEBLINK TRAFFIC*

Generally speaking it is a strong marketing and branding strategy for organizations to navigate users back to their website (AdStage, 2015). Linking back to the site from social media sites drives traffic and benefits your website from a search engine optimization standpoint. Note that in the appendices, the number of links each organization provides to its own website is recorded in the column with the heading, "Weblink." When an organization's social media page includes a link to an article of a webpage owned by the organization, I put 1 in the column. 0 indicates that there is no link provided, or that the link provided does not lead to a website of the organization (i.e. a link to a Washington Post article). As displayed in Table 13 and Table 14, Clean Water for North Carolina and Environment North Carolina use links the least out of all of their organizations, both on their Facebook and Twitter. Appalachian Voices has the most marked difference in its use of links on Facebook versus Twitter, with a difference in nearly 50 percent. North Carolina Coastal Federation uses links to their own pages the most out of all the organizations, and NCCF rates are similar for both their Facebook and Twitter activity.

**Table 13. Twitter Prevalence Posts with Weblinks**

	DA		ANC		AV		CWNC		NCCF		ENC		Overall	
	Prev	%	Prev	%	Prev	%	Prev	%	Prev	%	Prev	%	Prev	%
Links	6	11.5%	13	72.2%	16	18.6%	0	0.0%	14	48.3%	2	5.3%	51	19.1%

**Table 14. Facebook Prevalence Posts with Weblinks**

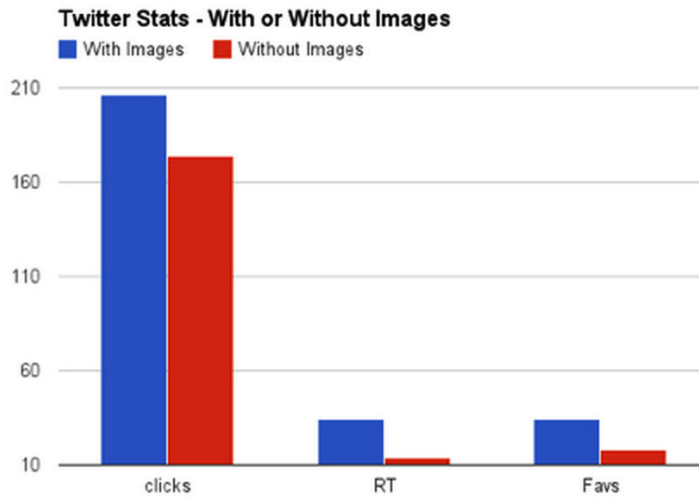
	DA		ANC		AV		CWNC		NCCF		ENC		Overall	
	Prev	%	Prev	%	Prev	%	Prev	%	Prev	%	Prev	%	Prev	%
Links	1	20.0%	3	60.0%	2	28.6%	1	9.1%	3	75.0%	0	0.0%	10	25.0%

## MULTIMEDIA

According to a 2012 study of companies revealed that “photos on Facebook pages received 53 [percent] more likes than the average post... photo posts attracted 104 [percent] more comments than the average post, too (Corliss, 2012).” Table 15 and Table 16 summarizes the prevalence and percentage of Twitter and Facebook post and tweets by each organization that included videos and pictures. Note that in my methods section, I classify pictures as images directly added by organizations to their posts, as opposed to images that may auto populate up in previews of a link. To be included in my measurements, videos must also be originally uploaded by the respective organizations rather than included in a link, so that they are directly embedded into the Facebook page.

Out of all the organizations, Environment North Carolina has the highest percentage (32 percent) of Twitter posts that include pictures or video. Clean Water for North Carolina and North Carolina Coastal Federation had the second highest percentage, roughly 10 percent of their tweets contained multimedia. Dogwood Alliance tweeted images or video less than any other group, with only 4 percent. Of the overall tweets from all six organizations, only 10 percent included an image or video. What was very surprising was that all of the organizations included an image or video in their Facebook posts 100 percent of the time. I am not sure as to why it was more prevalent on Facebook versus Twitter, it may be due to the ease of uploading a photo or the increased engagement level are more obvious.

A study by *Buffer* found that an organization can potentially get higher levels of engagement for tweets with images and videos (e.g., Vine videos). It is possible to get a 150% increase in retweets just by including images (Cooper, 2013). Buffer conducted an A/B test of tweets with pictures (A) and tweets without pictures (B).



When Buffer added images to their tweets they found that the pictures group was the most successful, outperforming text only tweets in every category (Lee, 2014):

- 18 percent more clicks
- 89 percent more favorites
- 150 percent more retweets

For all the organizations the tweets that included a photo or video were on average retweeted ten or more times. Overall, to increase social media engagement an organization should include graphics, videos, and other visual items in their post. An image, even a simple one, can dramatically improve the click-through volume.

**Table 15. Twitter Multimedia Prevalence**

	DA		ANC		AV		CWNC		NCCF		ENC		Overall	
	Prev	%	Prev	%	Prev	%	Prev	%	Prev	%	Prev	%	Prev	%
Picture/Video	2	3.8%	0	0.0%	9	10.5%	1	9.1%	3	10.3%	12	31.6%	27	10.1%

**Table 16. Facebook Multimedia Prevalence**

	DA		ANC		AV		CWNC		NCCF		ENC		Overall	
	Prev	%	Prev	%	Prev	%	Prev	%	Prev	%	Prev	%	Prev	%
Picture/Video	5	100.0%	5	100.0%	7	100.0%	11	100.0%	4	100.0%	8	21.1%	40	100.0%

## SOCIAL MEDIA SUCCESS

Twitter and Facebook provide some basic analytic tools for page owners, such as information about their audience; such as, gender, age, location, and interests (Facebook, 2015 e). Facebook insights provide information about “reach” and “engagement.” Facebook defines reach as “the number of unique people who saw any activity from your page.” The engagement rate measures “the percentage of people who saw a post that liked, shared, clicked, or commented on it (Facebook, 2015 e).” In addition, software like Google Analytics can provide additional insights for a fee.

Social media analytics provide metrics that accurately estimate how many users have engaged, viewed, interacted, etc. with their organization. For instance, number of views of a Facebook video might reflect an increase in awareness; number of clicks might reflect interest about a topic, and similarly, organizations might use the number of fans as a reflection of their interest in their organization.

There’s an array of different social media management tools to enable an organization to monitor every aspect of their social activity. These include measuring click-through stats, likes, retweets, follower growth, posts and shares. The platforms themselves also offer great monitoring tools. Facebook’s metrics are great for showing how successful social media activity is, audience make-up, peak traffic etc. Twitter includes a search feature that an organization can use to search for mentions, this allows them to monitor potential news, pictures and tweets that the organization has been featured in.

Each organization is going to vary in how they define social media success within their organization. Some organizations may prefer name recognition over relationships and vice

versa. One example of a nonprofit that has successfully done this is DoSomething.org, which is leveraging Twitter to boost awareness for their organization's efforts to empower youth. They post information directly related to their cause, including facts about teens, helpful links to resources, news stories focused on youth and a variety of direct interactions with their supporters. Since DoSomething.org started Tweeting in March of 2008, they've been able to successfully grow their following to more than 525,000 followers, thus significantly increasing the audience they are able to reach (Wired Impact, 2012).

In *Nonprofit Social Media: Defining "Success" For Your Nonprofit*, Calvin Stowell, social media strategist at DoSomething.org, emphasized the benefits that growing their Twitter following has had on the organization. Stowell said that Twitter has "afforded us means to acquire members for our various campaigns" as well allowing DoSomething.org to position itself as a "thought leader in the not-for-profit space (2011)."

Additionally, their use of Twitter led *Mashable*, a world recognized blog with a Twitter following of over 2.8 million people, to include them in a list of nonprofits on Twitter. Inclusion in such high profile lists can significantly increase the likelihood potential supporters will find a nonprofit and follow them.

Stowell also highlighted the relationships Twitter has allowed DoSomething.org to build with supporters. "We are very familial on Twitter which helps us form a really personal relationship with our followers and makes them far more likely to become brand ambassadors for us (Wired Impact, 2012)."

Another output of success for a nonprofit is cultivating long-term relationships with their followers. These relationships could potentially lead to repeat giving, increased fundraising and volunteers. Amnesty International is an example of an organization using Twitter effectively



to maintain relationships with its supporters. Their Twitter feed has numerous examples of acknowledging individual people, mentioned by name or Twitter handle (Wired Impact, 2012).

They're also diversify the type of interaction they have with followers, including:

- Recognizing supporters that work to further their cause
- Answering questions posed by members of their community
- Thanking donors that have Tweeted about their recent donation
- Sharing information and resources their followers will likely find interesting

Another goal or measure of success may be to connect with new supporters. A person will likely be more receptive to a nonprofit's mission if it comes with an endorsement from someone they value. Social media provides a huge opportunity for such peer recommendations to help spread specific messages or campaigns. An example of a nonprofit using this type of approach is the American Red Cross. The American Red Cross is leveraging both Facebook and Twitter to amplify its message. Their posts are routinely shared by hundreds (and sometimes even thousands) of people on each of these social networks, helping them to reach a wider audience than they could alone.

Additionally, people are more likely to support an organization that is knowledgeable in their field. In the report, *Money for Good*, a study on donor behavior, found that individuals are seeking to "give to a reputable nonprofit" and that they "care about [the] legitimacy [and] respect" of the organizations they ultimately decide to support (2011). By leveraging social media, a nonprofit can demonstrate their nonprofit's knowledge related to their cause and increase the probability they will be recognized as an expert in their field. The Earth Policy Institute is a great example of an organization that has become a leader in environmental economics . This group, founded by internationally renowned environmentalist Lester Brown

and based in Washington, D.C., produces authoritative reports on global issues, as well as detailed roadmaps for how to solve interconnected environmental and social challenges. The Institute's thorough reports on climate, energy, population, agriculture, transportation and more are clear and compelling.

Each nonprofit will have separate goals and benchmarks that best fits their organization and will determine how success is defined for them. One way to determine the best social media strategy for an organization is through testing. One way to test strategies is through A/A and A/B testing. A/A testing is used to compare audiences. On Facebook, the same post may show up twice. Each post is promoted to target a specific audience to determine how they respond differently to the same content. This may explain some of the repeated posts/tweets of organizations on Facebook and Twitter. A/B testing compares different posts against each other. Two posts may have similar content that is framed in a different way. For instance, the same link could be used but the post itself may have different language. Another example is using the same text but slightly different images (Chopra, 2010). The goal of such testing is to see what type of language or image garners the most attention and from which audience and platform.

## CONCLUSION

In my analysis of subject matter, categories, and motivation, there were apparent overall patterns among environmental nonprofits. Generally, there is a relationship between the subject matter, categories and motivations that are prominent on Facebook versus those that are prominent on Twitter. However, certain organizations specifically tweeted and posted subject matter that was not more prevalent overall, but did garner higher levels of engagement through favorites, likes, retweets, and shares. For example, Clean Water for North Carolina discussed fracking more than other organizations on its social media pages, while Appalachian Voices addressed the Dan River coal ash spill much more frequently (Tables 7 and 8). News, information and political posts and tweets occurred the most often overall among categories. However, some organizations were more prolific in the type of category they used. Dogwood Alliance set itself apart with a high percentage of news tweets, for example (Table 9).

Neutral tweets and posts were more common on Facebook and Twitter (Table 11 and 12). However, on Facebook there were less negative posts than Twitter. Twitter was more equally distributed in prevalence of motivation type (Table 11). The organizations were similar in how they sought their audience's attention through specific strategies. They all used multimedia as a way to increase engagement with followers. The nature of the media differed from organization to organization. For example, Appalachian Voices had significantly more photos of the coal ash spill than any other organization. All the organizations used images on Facebook, but several of the organizations did not include them at all or very little on Twitter, such as Audubon North Carolina and Clean Water for North Carolina. For example, multimedia was included in 30 percent of Environment North Carolina's tweets (Table 15). Some organizations appeared to stay more on message with their mission, whereas Clean Water for North Carolina

posted content that covered most subject matter areas on Facebook (Table 8). One item to note is that several of the organizations had content identified as “other”, it was surprising that the organizations did share or create content not specific to environmental issues or information, for example, several posts and tweet were specifically related to social and environmental justice issues.

Social media provides these organizations with the opportunity to reach audiences they would otherwise not be able to engage. Specific campaigns, such as mailings and donation requests, are targeted towards people who have agreed to provide the nonprofit with their information, whereas on Facebook and Twitter, people who have no prior connection with the organizations can learn about them through new pathways and without solicitation. Social media is effectively driving Facebook and Twitter users to nonprofit websites and encouraging users to sign up for newsletters, volunteering, and giving. Followers are also further participating in campaigns, whether it be through signing a petition, writing an email, or making a donation. I also found that the nonprofits that tweeted and posted more had significantly more favorites, retweets, likes and followers than the other organizations. Additionally, there appears to be no connection between subject matter variety and increased followers and likes.

While my research has shed light on the type of social media content created by environmental nonprofits, as well as how they are using it and with what effects, there are many more questions that can be delved into. This study did provide a comprehensive analysis of levels of engagement with followers and provided data that could be useful for the organizations to consider when developing a social media strategy for general content and campaign specific content. With more time and improved resources, it would be fascinating to explore the social media activity of environmental nonprofits over a longer period, such as a

year. I am curious whether or not the 'snapshots' of data I took from Facebook and Twitter are representative of organizations' social media activity generally. Furthermore, I would like to study how social media use has changed over time for these organizations. Has the content remained in the same proportions or have the organizations slowly over time changed them to their current proportions, and is there a difference seasonally? There are areas of expansion for this project. First, this project only examined the use of Twitter and Facebook. It did not consider how environmental organizations actively use other social media tools. In addition, this project did not consider the organizations' offline advocacy work. It may be that social media strategies are more employed by smaller, resource-poor organizations, or perhaps instead resource-rich organizations use all available means of advocacy (Guo & Saxton, 2014). To answer these questions, follow-up research is needed that examines the interaction of organizations' offline and online advocacy efforts.

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## APPENDICES

### APPENDIX A: DOGWOOD ALLIANCE TWITTER/TWEETS

DATE	TWEET	SUBJECT MATTER	CATEGORY	MOTIVATION	RETWEET	FAVORITE	MULTIMEDIA	WEBLINK
1/3 1/1 4	The cost of #biomass for #climate is devastating, but what about vital plant & animal life? <a href="http://www.dogwoodalliance.org/2014/01/forests-arent-fuel-theyre-my-home/">http://www.dogwoodalliance.org/2014/01/forests-arent-fuel-theyre-my-home/</a>	Climate Change	Informational	Both	1	0	0	1

1/2 8/1 4	Interesting bit about how windy weather can be good & bad for #wind energy. <a href="http://www.connectmidmissouri.com/news/story.aspx?id=999418">http://www.connectmidmissouri.com/news/story.aspx?id=999418</a> ...	Energy	Informational	Both	0	0	0	0
1/2 7/1 4	South Korea investing \$20 million in new #woodpellet factory & 10,000MW #biomass power plant. <a href="http://shar.es/U9WIR">http://shar.es/U9WIR</a> #biomess	Energy	News	Both	1	0	0	0
1/3 0/1 4	Rebel smell: in the Deep South, dirty #energy & #disenfranchisement go hand in hand <a href="http://bit.ly/1b9r86a">http://bit.ly/1b9r86a</a> #biomass #coal	Energy	News	Both	1	0	0	0

2/1 0/1 4	Push for transparency on biggest #Dutch #biomass power plant to determine #sustainable sourcing. <a href="http://bit.ly/NupoMB">http://bit.ly/NupoMB</a> via @somo	Energy	News	Both	2	0	0	0
1/2 7/1 4	Proposed #fracking in #nationalforest meets broad opposition. <a href="http://touch.latimes.com/#section/-1/article/p2p-79002836/">http://touch.latimes.com/#section/-1/article/p2p-79002836/</a> ... via @latimes	Fracking	News	Both	1	0	0	0
1/2 9/1 4	State Parks and Forests Aren't as Protected as You Think <a href="http://bit.ly/1fc3G7z">http://bit.ly/1fc3G7z</a> via @wnpr #conservation	Resource Conservation	News	Both	0	0	0	0
1/2 9/1 4	While @WWF "cautiously welcomes" APRIL #Sustainable Forest Management Policy <a href="http://shar.es/USkqT">http://shar.es/USkqT</a> ...	Resource Conservation	News	Both	0	0	0	0

2/7/14	Saving 200K acres of Olympic Natl Forest from logging, mining & damming to sustain drinking water & ecosystems. <a href="http://bit.ly/1I5UWUe">http://bit.ly/1I5UWUe</a>	Resource Conservation	News	Both	0	0		0
2/12/14	Huh. #Drug trafficking linked to #deforestation. <a href="http://bit.ly/1jx8477">http://bit.ly/1jx8477</a>	Resource Conservation	News	Both	0	0	0	0
1/29/14	Forests aren't fuel. They're home to plant & wildlife (like #bunnies). #biomass #ourforestsarentfuel	Energy	Personal	Both	3	2	1	0
2/5/14	#NC residents, help us save #HofmannForest from urban development & industrial farming! <a href="http://bit.ly/1fQqiMP">http://bit.ly/1fQqiMP</a>	Land Conservation	Political	Both	2	3		1

1/2 7/1 4	The dangerous effects on #climate from #deforestation & #PalmOil via @foeeurope <a href="http://www.foe.org/news/archives/2014-01-lets-prevent-palm-oil-from-foreclosing-on-our-climat...">http://www.foe.org/news/archives/2014-01-lets-prevent-palm-oil-from-foreclosing-on-our-climat ...</a>	Climate Change	News	Negative	1	0	0	0
1/2 7/1 4	Springfield #biomass plant dispute heads to court - via @bostondotcom <a href="http://bo.st/1dATUZS">http://bo.st/1dATUZS</a>	Energy	News	Negative	0	0	0	0
1/3 0/1 4	Say NO to more subsidies for big dirty #biomass via @biofuelwatch <a href="http://www.biofuelwatch.org.uk/2014/cfd-alert-2/#.UuqF5_P0pTk.twitter...">http://www.biofuelwatch.org.uk/2014/cfd-alert-2/#.UuqF5_P0pTk.twitter ...</a>	Energy	News	Negative	1	0	0	0
2/1 0/1 4	WildForests Healthy or working forests shouldn't be used for #biomass. It's bad for #climate, wildlife habitat, AND trees.	Energy	News	Negative	1	0	0	0
2/1 1/1 4	#Russia is joining the ranks w/#Turkey & the US in #woodpellet exports for dirty #biomass energy to Europe. <a href="http://bit.ly/1g3jYCe">http://bit.ly/1g3jYCe</a>	Energy	News	Negative	1	0	0	0
2/1 1/1 4	Looks like Europe is getting #woodpellets from #Turkey as well as the US for their dirty #biomass energy. <a href="http://bit.ly/1g2Kw6z">http://bit.ly/1g2Kw6z</a>	Energy	News	Negative	1	1	0	0

2/3/14	#India's Dir. of Centre for Science & Environment: We need to learn how to make \$ w/out destroying the forests. <a href="http://www.tribuneindia.com/2014/20140202/edit.htm#1">http://www.tribuneindia.com/2014/20140202/edit.htm#1</a> ...	land conser vation	News	Negati ve	0	1		0
2/4/14	#Conservation Groups Convene to Combat Exploding #WoodPellet Export Industry in US South <a href="http://www.dogwoodalliance.org/2014/02/conservation-groups-convene-to-combat-the-exploding-wood-pellet-export-industry-in-the-south/">http://www.dogwoodalliance.org/2014/02/conservation-groups-convene-to-combat-the-exploding-wood-pellet-export-industry-in-the-south/</a> ...	land conser vation	News	Negati ve	0	1		1
2/14/14	Lawlessness & Drug Trafficking Is Undoing Effort to Save Honduran Forests <a href="http://bit.ly/1ovPRHC">http://bit.ly/1ovPRHC</a> via @nytimes	Land Conser vation	News	Negati ve	0	0	0	0
1/29/14	It looks like @Greenpeace sees APRIL's "sustainability" policy a license to continue forest clearance <a href="http://act.gp/1buOUX0">http://act.gp/1buOUX0</a>	Resour ce Conser vation	News	Negati ve	0	0	0	0

2/1 2/1 4	Listen to Dogwood's @scotq on the burning of US forests for European #biomass electricity here On The Green Front. <a href="http://bit.ly/MLyCTS">http://bit.ly/MLyCTS</a>	Energy	Personal	Negative	2	0	0	0
2/1 3/1 4	Trees Are Our #Climate Saviors - So Stop Logging on Public Land <a href="http://bit.ly/1aZuQl2">http://bit.ly/1aZuQl2</a> via @HuffPostGreen	Resource Conservation	Political	Negative	1	0	0	0
2/6/ 14	#NC: Roads closed in Pisgah National Forest to protect them from erosion and runoff. Check before your next #hike! <a href="http://bit.ly/1cYLy30">http://bit.ly/1cYLy30</a>	Land Conservation	Informational	Neutral	0	0		0
2/1 2/1 4	Do you live in one of the Top 10 #Greenest #Cities? <a href="http://bit.ly/1jxc3QU">http://bit.ly/1jxc3QU</a>	other	Informational	Neutral	0	0	0	0
1/3 0/1 4	How the EU's #green energy drive is hitting US forests. #biomass <a href="http://www.dw.de/how-the-eus-green-energy-drive-is-hitting-us-forests/a-17393422">http://www.dw.de/how-the-eus-green-energy-drive-is-hitting-us-forests/a-17393422</a> ...	Climate Change	News	Neutral	2	0	0	0
2/3/ 14	President #Obama Announces Push to Address #ClimateChange <a href="http://www.greenoptimistic.com/2014/01/30/obama-announces-push-address-climate-change/">http://www.greenoptimistic.com/2014/01/30/obama-announces-push-address-climate-change/</a> ... via	Climate Change,	News	Neutral	0	1		0

	@greenoptimistic							
2/3/ 14	An argument for #green #windpower in #NH. <a href="http://www.fosters.com/apps/pbcs.dll/article?AID=/20140131/GJOPINION_0102/140139887/-1/FOSOPINION...">http://www.fosters.com/apps/pbcs.dll/article?AID=/20140131/GJOPINION_0102/140139887/-1/FOSOPINION ...</a>	energy	News	Neutral	0	1		0
2/1 1/1 4	Tackling #ClimateChange Means Curbing Emissions AND Expanding our Forests <a href="http://bit.ly/1emfXE8">http://bit.ly/1emfXE8</a> via @EnergyCollectiv #biomass	Energy	News	Neutral	1	0	0	0
2/6/ 14	#PressRelease from @AsiaPulpPaper for #APP1yrFCP. Are they really becoming better forest stewards? <a href="http://bit.ly/1cYhMLP">http://bit.ly/1cYhMLP</a>	Resource Conservation	News	Neutral	1	0		0
2/1 0/1 4	Next big idea in forest #conservation? Incentivizing keeping primary forests intact <a href="http://bit.ly/Ntpq7x">http://bit.ly/Ntpq7x</a> via @mongabay	Resource Conservation	News	Neutral	0	0	0	0
2/1 3/1 4	Unprecedented Monitoring of #Forests Worldwide via @WRIForests <a href="http://bit.ly/1aZDrnD">http://bit.ly/1aZDrnD</a>	Resource Conservation	News	Neutral	0	0	0	0



2/3/14	UK Govt @DECCgovuk Investigates #Biomass #WoodPellet Industry in US South w/@DogwoodAlliance. <a href="http://www.dogwoodalliance.org/?p=5707">http://www.dogwoodalliance.org/?p=5707</a>	Energy	News	Neutral	3	0		1
2/7/14	#CarbonCanopy is changing the world by protecting forests AND getting \$ for landowners. Find out how! <a href="http://bit.ly/1I7DKOc">http://bit.ly/1I7DKOc</a>	Climate Change	Personal	Neutral	0	0		1
1/27/14	For Feb, @AmazingCapes sales of Super Mandela cape benefit @ashevillehumane. Show your #love of fun & animals! <a href="http://www.amazingcapes.com/products/super-mandela-cape...">http://www.amazingcapes.com/products/super-mandela-cape ...</a>	other	Personal	Neutral	0	0	0	0
1/29/14	Indian Supreme Court halts environment ministry's move to allow #mining without green nod <a href="http://ecoti.ms/xvh-fZ">http://ecoti.ms/xvh-fZ</a> via @EconomicTimes	Energy	Political	Neutral	0	0	0	0
2/3/14	Schools save money by going #solar. <a href="http://www.guampdn.com/article/20140202/NEWS01/302020015/Public-schools-may-add-solar-panels...">http://www.guampdn.com/article/20140202/NEWS01/302020015/Public-schools-may-add-solar-panels ...</a>	energy	Informational	Positive	1	1		0

2/1 0/1 4	Strategies to save the #environment & #forests pushed in #Philippines. <a href="http://bit.ly/1dCdR2R">http://bit.ly/1dCdR2R</a> #climatechange	Climate Change	News	Positive	0	0	0	0
1/3 0/1 4	Brazil's Forest Protection Has Achieved x2 US #Carbon Emissions Reductions <a href="http://bit.ly/1fB7tf2">http://bit.ly/1fB7tf2</a>	Energy	News	Positive	0	0	0	0
2/3/ 14	Bank @GoldmanSachs Declares The #Renewable Sector Worth Investing In <a href="http://cleantechnica.com/2014/02/01/goldman-sachs-declares-renewable-sector-one-compelling/">http://cleantechnica.com/2014/02/01/goldman-sachs-declares-renewable-sector-one-compelling/</a> ... via @cleantechnica	energy	News	Positive	0	0		0
2/4/ 14	EU's "Green" #Energy Drive Is Hitting US Forests <a href="http://bit.ly/1e0EhLt">http://bit.ly/1e0EhLt</a> #biomass	energy	News	Positive	1	0		0
2/4/ 14	UK should have 10 million homes with #solar panels by 2020, experts say <a href="http://gu.com/p/3ma62/tw">http://gu.com/p/3ma62/tw</a> via @guardian	energy	News	Positive	0	0		0

2/6/14	Japan's Fukushima Commits to 100% #RenewableEnergy <a href="http://bit.ly/1evchG9">http://bit.ly/1evchG9</a>	Energy	News	Positive	2	0		0
2/14/14	#Madagascar Sells @Microsoft #Carbon Credits <a href="http://bit.ly/1cEnSNB">http://bit.ly/1cEnSNB</a>	Energy	News	Positive	0	0	0	0
1/30/14	#Conservation groups & timber companies reach deal to protect more of Great Bear #Rainforest in #Canada. <a href="http://bit.ly/1cyYNXP">http://bit.ly/1cyYNXP</a>	Land Conservation	News	Positive	0	1	0	0
2/13/14	New species of Oak discovered in #wildlife sanctuary <a href="http://bit.ly/LXfLV6">http://bit.ly/LXfLV6</a>	Resource Conservation	News	Positive	0	0	0	0
2/6/14	#Environmental groups reach deal to protect marbled murrelet (an #endangered sea bird) in #Oregon. <a href="http://bit.ly/1cYyieS">http://bit.ly/1cYyieS</a>	Wildlife Conservation	News	Positive	0	0		0
2/14/14	Is your #Valentine as eco-conscious as you? #greenlove	Resource Conservation	Other	Positive	0	0	1	0

2/1 4/1 4	.@FBAsheville We're so happy to be included in the inaugural #DoWithYourBrew vote!	Agriculture	Personal	Positive	0	0	0	0
2/1 4/1 4	Love & admiration for our dedicated supporters! From the bottom of our forest-loving <3 #HappyValentinesDay! <a href="http://bit.ly/1cDUsz8">http://bit.ly/1cDUsz8</a>	Land Conservation	Personal	Positive	0	0	0	1
2/1 3/1 4	When you shop @AmazonSmile, Amazon will make a donation to Dogwood Alliance Incorporated. <a href="http://bit.ly/LXpFpL">http://bit.ly/LXpFpL</a>	other	Personal	Positive	0	0	0	0

APPENDIX B: AUDUBON NORTH CAROLINA TWITTER/TWEETS

DATE	TWEET	SUBJECT MATTER	CATEGORY	MOTIVATION	RETWEET	FAVORITE	MULTIMEDIA	WEB LINK
2/10/14	Great Backyard Bird Count is breaking records. Last year 1/3 of all bird species counted globally. #NCGBBC <a href="http://ow.ly/tj7Od">http://ow.ly/tj7Od</a>	Other	Informational	Neutral	1	0	0	0
2/13/14	15 min. That's all you need! Find out how you can be part of the 17th Great Backyard Bird Count. #NCGBBC <a href="http://ow.ly/tj8x0">http://ow.ly/tj8x0</a>	Other	Informational	Neutral	0	2	0	0
2/14/14	Starting TODAY join in the Great Backyard Bird Count to show your love for our feathered friends. LEARN MORE -->... <a href="http://fb.me/2SZpeaDWE">http://fb.me/2SZpeaDWE</a>	Other	Informational	Neutral	0	0	0	1
2/10/14	We love birds in North Carolina. How about you? This Valentine's Weekend, join us in the	Other	Personal	Neutral	4	3	0	1

	Great Backyard Bird... <a href="http://fb.me/391cpdFuz">http://fb.me/391cpdFuz</a>							
2/11/14	The family that birds together stays together. Great Backyard Bird Count has you covered this weekend! #NCGBBC <a href="http://ow.ly/t4TN5">http://ow.ly/t4TN5</a>	Other	Personal	Neutral	2	0	0	0
2/14/14	ATTENTION CHAPTER MEMBERS -- Unfortunately, we are going to have to cancel Chapter Day. We will talk to the park... <a href="http://fb.me/1dITCwsRY">http://fb.me/1dITCwsRY</a>	Other	Personal	Neutral	0	0	0	0
2/2/14	It's Superb Owl Day! See how The National Audubon Society did that - Super Bowl = Superb Owl. So clever! Post... <a href="http://fb.me/1b5Dj1EtS">http://fb.me/1b5Dj1EtS</a>	Wildlife Conservation	Informational	Positive	0	0	0	1

2/3/14	Did you know that only the male Carolina Wren sings the loud song and sings it up to 3,000 times a day? Thanks to... <a href="http://fb.me/2mwyGpdNg">http://fb.me/2mwyGpdNg</a>	Wildlife Conservation	Informational	Positive	0	2	0	1
2/14/14	For many it's Valentine's Day, but for bird nerds it's the start of the Great Backyard Bird Count (#ncgbbc)!... <a href="http://fb.me/35beNHROp">http://fb.me/35beNHROp</a>	Wildlife Conservation	Informational	Positive	1	0	0	1
1/29/14	We're getting so many gorgeous winter bird shots. Thanks to those who are sharing photos on our wall. Keep them... <a href="http://fb.me/6lOkcE2Np">http://fb.me/6lOkcE2Np</a>	Other	Personal	Positive	1	0	0	1
1/29/14	Fluffed out to stay warm! Thanks to Rosie Casper Hinkle for sharing this photo from her home near Gastonia, NC. <a href="http://fb.me/15QU8HMX">http://fb.me/15QU8HMX</a>	Other	Personal	Positive	0	0	0	1

	L							
1/29/14	Caption this photo! Thanks to Bryce Mahoney from Raleigh, NC for sharing this chilly little cardinal. #ncsnow <a href="http://fb.me/YqjqPXJU">http://fb.me/YqjqPXJU</a>	Other	Personal	Positive	2	1	0	1
1/29/14	Adorable tiny foot prints in the snow. Thank you to Julia Garland from Raleigh, NC for sharing this photo. Post... <a href="http://fb.me/YjVGjg7c">http://fb.me/YjVGjg7c</a>	Other	Personal	Positive	0	0	0	0
1/29/14	We want to see your North Carolina snow photos! Snow bogged nest boxes or brave birds stepping out in the unkind... <a href="http://fb.me/1dm0BEbXP">http://fb.me/1dm0BEbXP</a>	Other	Personal	Positive	0	0	0	1



2/4/14	Our work on Pine Island is coming along so beautifully. Daniel Hill, of BMH Architects, is creating a design... <a href="http://fb.me/3p8eb0y6D">http://fb.me/3p8eb0y6D</a>	Other	Personal	Positive	0	0	0	1
2/13/14	Shuckster - the American Oystercatcher our Facebook fans helped name - gets his own feature article! On our blog... <a href="http://fb.me/6qUQ3eiwL">http://fb.me/6qUQ3eiwL</a>	Other	Personal	Positive	0	0	0	1
2/14/14	We heart birds and you will too! Join the #NCGBBC this weekend to share the love. <a href="http://ow.ly/tj7XI">http://ow.ly/tj7XI</a>	Wildlife Conservation	Personal	Positive	2	0	0	1
1/27/14	LEGAL VICTORY FOR BIRDS: The U.S. Ninth Circuit Court of Appeals rejected the U.S. Department of the Interior's...	Wildlife Conservation	Political	Positive	6	2	0	1

	<a href="http://fb.me/6BdqPRsHF">http://fb.me/6BdqPRsHF</a>							
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APPENDIX C: ENVIRONMENT NORTH CAROLINA TWITTER/TWEETS

DATE	TWEET	SUBJECT MATTER	CATEGORY	MOTIVATION	RETWEET	FAVORITE	MULTIMEDIA	WE B LINK
1/27/14	If even Exxon acknowledges climate change is real, shouldn't Congress? <a href="http://bit.ly/1iEbaWr">http://bit.ly/1iEbaWr</a>	Climate Change	News	Both	1	0	0	0
1/29/14	This anti-fracking activist is actually banned from over 300 square miles in PA! <a href="http://bit.ly/1cuPsjO">http://bit.ly/1cuPsjO</a> #frackfreenc	Fracking	News	Both	0	0	0	0
1/29/14	Why a former WV wasn't drinking the water before the recent spill #frackfreenc <a href="http://read.bi/1cn3dkv">http://read.bi/1cn3dkv</a>	Fracking	News	Both	0	0	0	0
1/30/14	#ShalefieldStories Released: Ppl on frontlines of #fracking share stories of illness, water contamination, & more <a href="http://bit.ly/1ej8CJV">http://bit.ly/1ej8CJV</a>	Fracking	News	Both	1	0	0	0

1/28/14	.@kate_goes_bleu 0.14% of scientists, 56% of Rs in Congress deny human caused global warming. #SOTU	Climate Change	Political	Both	0	0	1	0
1/28/14	It's time to stop subsidizing fossil fuels. #ActionClimate #SOTU	Climate Change	Political	Both	0	1	0	0
1/28/14	All of above energy strategy! We're all for using only energy that's ABOVE THE GROUND #SOTU	Energy	Political	Both	3	1	0	0
2/8/14	.@Phil_Radford NC is marching to ban fracking! Can we get a RT?	Fracking	Political	Both	26	4	1	0
2/8/14	Like clean water? Then let's stop fracking! #frackfreenc #HJonK	Fracking	Political	Both	1	1	1	0
2/8/14	Let's keep a frack free NC #frackfreenc #hkonj @hashtaglizkaza	Fracking	Political	Both	8	3	1	0
2/8/14	Keep NC frack-free! #HKonJ #MoralMondayMarchOnRaleigh	Fracking	Political	Both	4	1	1	0

2/8/14	The anti-fracking contingent is starting to assemble! #moralmarch	Fracking	Political	Both	9	6	1	0
2/2/14	So moving billions of gallons of tarsands through a massive pipeline will have NO impact on climate change? Boo! <a href="http://lat.ms/1bifWnV">http://lat.ms/1bifWnV</a>	Climate Change	News	Negative	0	0	0	0
1/27/14	Solar power is causing a divide in the GOP. <a href="http://nyti.ms/1n96mbK">http://nyti.ms/1n96mbK</a>	Energy	News	Negative	0	0	0	0
1/31/14	Fracktivst in PA banned from over 300 sq. miles of the state. <a href="http://bit.ly/1dSmW7y">http://bit.ly/1dSmW7y</a> #frackfreenc	Fracking	News	Negative	1	1	0	0
1/28/14	Changing climate is already affecting communities. #ActionClimate #SOTU	Climate Change	Political	Negative	1	0	0	0
1/28/14	Lets get off ALL oil! #SOTU	Energy	Political	Negative	0	0	0	0
1/28/14	"@thinkprogress: "Climate change is a fact." "	Climate Change	Informational	Neutral	1	0	1	0

2/10/14	Want to see how much global warming is affecting your home? <a href="http://bit.ly/1fTVbyr">http://bit.ly/1fTVbyr</a> #actonclimate	Climate Change	Informational	Neutral	2	2	0	0
2/2/14	gas reduces emissions by "up to 60%." That means it could be 1%.	Energy	Informational	Neutral	0	0	0	0
2/2/14	#Solar reduces carbon emissions by 100% #SB48	Energy	Informational	Neutral	1	0	0	0
1/30/14	Today, we released testimonies from PA of ppl directly impacted from #fracking. Read more here: <a href="http://bit.ly/1nqBLGS">http://bit.ly/1nqBLGS</a> #Shalefieldstories	Fracking	Informational	Neutral	2	2	0	1
2/1/14	How does fracking impact your water? Learn the details Friday, Feb 5th noon at Duke to learn. #frackfreenc	Fracking	Informational	Neutral	3	0	1	0
1/29/14	More #solar is coming to Chapel Hill <a href="http://bit.ly/1cuNGPD">http://bit.ly/1cuNGPD</a>	Energy	News	Neutral	0	0	0	0

1/29/14	MAC is making a #solar powered computer! <a href="http://bit.ly/1lmiVSK">http://bit.ly/1lmiVSK</a>	Energy	News	Neutral	0	0	0	0
2/10/14	Oregon is moving forward with the first west coast offshore #wind turbines. <a href="http://bit.ly/1gbMJeg">http://bit.ly/1gbMJeg</a>	Energy	News	Neutral	0	0	0	
1/28/14	Climate change is a FACT. #SOTU #ActOnClimate	Climate Change	Political	Neutral	2	0	0	0
1/28/14	Every 4 mins another home or business goes solar! #SOTU	Energy	Political	Neutral	0	0	0	0
1/31/14	"We are talking about human life and public health." - Therese Vick #ncpol #fracking #frackfreenc	Fracking	Political	Neutral	1	0	0	0
1/28/14	Ready for #SOTU2014? Hoping a strong message to #ActOnClimate	other	Political	Neutral	0	0	0	0
2/8/14	Packing the Fayetteville mall! #hkconj #moralmarch	other	Political	Neutral	4	0	1	0
2/8/14	To the Capitol! #hkconj #moralmarch	other	Political	Neutral	1	0	1	0
2/8/14	Streets are packed! #hkconj #moralmarch	other	Political	Neutral	6	2	1	0
1/28/14	Protect all the pristine places #SOTU	Resource Conservation	Political	Neutral	0	0	0	0

2/2/14	#solar is at the Super Bowl! <a href="http://n.pr/1eHrzT2">http://n.pr/1eHrzT2</a>	Energy	News	Positive	1	0	0	0
2/3/14	Raleigh, NC says no KXL! #nokxl#p2	Energy	News	Positive	2	0	1	0
2/11/14	TriBizMoney NC doubled the number of solar jobs from 2012 to 2013! <a href="http://bit.ly/LSceax">http://bit.ly/LSceax</a> C16	Energy	News	Positive	0	1	0	1
2/11/14	North Carolina more than doubled the number of #solar jobs in 2013! <a href="http://bit.ly/LSceax">http://bit.ly/LSceax</a>	Energy	News	Positive	3	2	0	0

APPENDIX D: APPALACHIAN VOICES TWITTER/TWEETS

DATE	TWEET	SUBJECT MATTER	CATEGORY	MOTIVATION	RETWEET	FAVORITE	MULTIMEDIA	WEBLINK
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1/27 /14	Please RT this page so those still smelling MCHM or w symptoms after #WVchemicalspill can submit and view reports <a href="http://ow.ly/sZVCI">http://ow.ly/sZVCI</a>	Other	Informat ional	Both	2	0	0	0
1/29 /14	Common sense and nonsense in the Va. General Assembly, and the #climate fight brewing in #RVA <a href="http://shar.es/UP41H">http://shar.es/UP41H</a>	Climate Change	News	Both	0	0	0	1
1/30 /14	After years of delays and setbacks, the deadline is set for EPA #coal ash rule <a href="http://shar.es/QnFbi">http://shar.es/QnFbi</a>	Coal ash	News	Both	1	1	0	0

2/5/ 14	After spill, @DukeEnergy's line on coal ash is evolving. "Duke agrees that storing #coalash in lagoons is outdated" <a href="http://ow.ly/tjW11">http://ow.ly/tjW11</a>	coal ash	News	Both	7	2		
2/11 /14	#NC asks judge to delay settlement with Duke while it "undertakes a comprehensive review of all #coalash facilities" <a href="http://wapo.st/1h68CjR">http://wapo.st/1h68CjR</a>	Coal ash	News	Both	14	1	0	0
2/12 /14	In the wake of Dan River #coalash spill, #NC should sever its cozy ties with Duke: <a href="http://www.charlotteobserver.com/2014/02/11/4685034/state-should-sever-its-cozy-ties.html">http://www.charlotteobserver.com/2014/02/11/4685034/state-should-sever-its-cozy-ties.html</a> ...	Coal ash	News	Both	5	1	0	0

1/27 /14	Duke Energy celebrates #solar in NC, so why are they trying to dismantle the state's net metering policy? <a href="http://appvoices.org/2014/01/24/whos-sour-on-solar-day/">http://appvoices.org/2014/01/24/whos-sour-on-solar-day/</a> ...	Energy	News	Both	3	0	0	1
1/28 /14	Job Aid Zones Face a New Test in #Coal Country via @nytimes <a href="http://nyti.ms/MnPxfM">http://nyti.ms/MnPxfM</a>	Energy	News	Both	0	0	0	0
1/27 /14	ICYMI: Freedom Industries let workers know of the 2nd chemical (PPH), days before it told investigators: <a href="http://ow.ly/t0zFY">http://ow.ly/t0zFY</a>	Other	News	Both	2	0	0	0
1/27 /14	18 days after #WVchemicalspill, today is the last day water will be distributed in Kanawha County, W.Va. ...	Other	News	Both	1	2	0	0

1/29 /14	.@LennyKohm1 says there is no separation between ecological and social justice, "The people are part of the system" <a href="http://appvoices.org/2013/12/09/the-changemakers/">http://appvoices.org/2013/12/09/the-changemakers/</a> ...	Other	News	Both	0	0	0	1
2/6/ 14	Impressive infographic by @TVA_Newsroom on meeting demand during #arctic weather: <a href="http://ow.ly/tm1Dz">http://ow.ly/tm1Dz</a>	Climate Change	News	Both	0	0		0
1/26 /14	On @msnbc, @AppVoices Matt Wasson says WV citizens care about clean water, it's the politicians/industry that don't <a href="http://www.msnbc.com/disrupt/watch/how-coal-mining-affects-w-va-s-water-126805571655">http://www.msnbc.com/disrupt/watch/how-coal-mining-affects-w-va-s-water-126805571655</a> ...	Other	Personal	Both	2	0	0	0

1/28/14	50 years from now will we be able to say "Yes we did" on addressing #climate change?	Climate Change	Political	Both	5	3	0	0
2/7/14	Take action to ensure, in @PatMcCraryNC's words, "This never happens again in North Carolina." <a href="http://appvoices.org/rww/stopthespill/">http://appvoices.org/rww/stopthespill/ ...</a>	coal ash	Political	Both	3	2		1
2/13/14	Hilarious cartoon on @theobserver - the real story behind coal ash in NC : <a href="http://bit.ly/1cz7TQI">http://bit.ly/1cz7TQI</a>	Coal ash	Political	Both	4	2	0	0
1/28/14	We need new #carbon pollution standards #SOTU	Energy	Political	Both	5	1	0	0

1/27 /14	Mapping Obama's economic Promise Zones, including eastern Ky. via @AJAM <a href="http://alj.am/1lgqbj4">http://alj.am/1lgqbj4</a>	Other	Political	Both	1	0	0	0
1/28 /14	Well played. "It's time to do away with workplace policies that belong in a "Mad Men" episode." #SOTU	Other	Political	Both	1	2	0	0
1/28 /14	I was told this speech would be all about #inequality? #SOTU	Other	Political	Both	1	0	0	0

1/28/14	Obama says 2014 will be a breakthrough year, but will govt. help or hinder this progress? #SOTU	Other	Political	Both	0	2	0	0
1/28/14	Tuning into the #SOTU, will Obama say anything about his Promise Zones initiative, how about the #WVchemicalspill?	Other	Political	Both	4	1	0	0
2/6/14	#coalash spill contaminated Dan River with high levels of arsenic, chromium, lead, other toxic metals @Waterkeeper, @yadkinrivkeeper	coal ash	Informational	Negative	6	2		0
2/8/14	AppVoices water quality test results confirm #coalash toxics in Dan River, NC, after spill at #DukeEnergy plant. <a href="http://bit.ly/1l8h0hb">http://bit.ly/1l8h0hb</a>	coal ash	Informational	Negative	11	1		1

1/28/14	"All of the above" energy strategy graphic on <a href="http://whitehouse.gov">http://whitehouse.gov</a> live stream did not include #coal	Energy	Informational	Negative	2	0	0	0
2/5/14	The Dan River # <u>coalah</u> spill: "It's like a lava flow moving slowly toward Danville" - <a href="http://www.godanriver.com/news/danville/it-s-like-a-lava-flow-moving-slowly-toward-danville/article_c669beb4-8ecf-11e3-8fab-001a4bcf6878.html">http://www.godanriver.com/news/danville/it-s-like-a-lava-flow-moving-slowly-toward-danville/article_c669beb4-8ecf-11e3-8fab-001a4bcf6878.html</a> ...	coal ash	News	Negative	18	4		0
2/6/14	SC leads the nation in cleaning up its #coalah, the next spill in NC is just a matter of time: <a href="http://www.newsobserver.com/2014/02/06/3597344/the-next-spill-in-nc-is-just-a.html">http://www.newsobserver.com/2014/02/06/3597344/the-next-spill-in-nc-is-just-a.html</a> ...	coal ash	News	Negative	3	2		0



2/7/14	Environmentalists say N.C. river is 'toxic soup' after coal ash spill via @AJAM <a href="http://alj.am/1iyMY4E">http://alj.am/1iyMY4E</a>	coal ash	News	Negative	6	0		0
2/9/14	Coal ash ponds 'disasters waiting to happen' <a href="http://www.news-record.com/news/article_2c95f018-9150-11e3-9bd2-001a4bcf6878.html#.UveLXBKpEq8.twitter">http://www.news-record.com/news/article_2c95f018-9150-11e3-9bd2-001a4bcf6878.html#.UveLXBKpEq8.twitter</a> ... via @newsandrecord	Coal ash	News	Negative	5	3	0	0
2/10/14	Speechless.. Freedom Industries, the company responsible for #WVchemicalspill, skips congressional hearing on spill. <a href="http://thinkprogress.org/climate/2014/02/10/3273201/freedom-chemical/">http://thinkprogress.org/climate/2014/02/10/3273201/freedom-chemical/</a> ...	Coal ash	News	Negative	13	3	0	0

2/11 /14	West Virginians are contending with yet ANOTHER #coal-related spill, this one of slurry waste in Kanawha County. <a href="http://bit.ly/1ns1LS6">http://bit.ly/1ns1LS6</a>	Coal ash	News	Negative	20	3	0	1
2/11 /14	When will it end? #WV is investigating a significant #coal slurry spill in eastern Kanawha County. <a href="http://www.wvgazette.com/News/201402110032...">http://www.wvgazette.com/News/201402110032 ...</a>	Coal ash	News	Negative	12	2	0	0
2/13 /14	"Consequences flowed across state lines.." Virginian Pilot editorial on Dan River #coalash spill <a href="http://hamptonroads.com/2014/02/coal-ash-other-ills-flowing-nc...">http://hamptonroads.com/2014/02/coal-ash-other-ills-flowing-nc ...</a>	Coal ash	News	Negative	5	2	0	0

1/28 /14	Community groups sue over coal mining pollution in Virginia <a href="http://appvoices.org/2014/01/28/penn-va-selenium-pr/">http://appvoices.org/2014/01/28/penn-va-selenium-pr/ ...</a>	Energy	News	Negative	3	0	0	1
1/27 /14	To understand why NC will allow #fracking companies to keep chemicals secret, take a glance at West Virginia: <a href="http://ow.ly/t0kjK">http://ow.ly/t0kjK</a>	Fracking	News	Negative	5	1	0	0
1/27 /14	... not necessarily because the water is 100% safe. But because "Federal resources have been exhausted." <a href="http://ow.ly/t090G">http://ow.ly/t090G</a>	Other	News	Negative	2	1	0	0

1/29 /14	Put simply: "People don't trust the information they're getting anymore, because this whole thing has been a blunder" <a href="http://ow.ly/t5Aox">http://ow.ly/t5Aox</a>	Other	News	Negative	4	0	0	0
2/11 /14	More than a month after #WVchemicalspill, schools are still detecting unacceptable levels of MCHM: <a href="http://www.wvgazette.com/News/201402110056">http://www.wvgazette.com/News/201402110056</a> ...	Coal ash	News	Negative	8	2	0	0
1/30 /14	VA acorn production hit its lowest in 6 years this fall. Find out why at <a href="http://appvoices.org/2013/12/09/the-forests-bread-and-butter/">http://appvoices.org/2013/12/09/the-forests-bread-and-butter/</a> ...	Resource Conservation	News	Negative	2	1	0	1

2/13/14	Just a reminder to Patriot Coal, @DukeEnergy and Freedom Industries: Please remember to report spilling your toxic #coal waste immediately.	Coal ash	Other	Negative	6	6	0	0
2/3/14	How will we fix the gap between culture and #sustainability? Answers from cofounder of @greenopps in West Asheville <a href="http://appvoices.org/2013/12/10/dewayne-barton-building-opportunity-in-west-asheville/">http://appvoices.org/2013/12/10/dewayne-barton-building-opportunity-in-west-asheville/</a> ...	energy	Personal	Negative	2	3		1
1/27/14	Water distro is ending, but we're still getting reports like this one: <a href="http://ow.ly/t0dIz">http://ow.ly/t0dIz</a> . Would you drink this? <a href="http://ow.ly/i/4pxzs">http://ow.ly/i/4pxzs</a>	Other	Personal	Negative	1	0	1	0

1/27/14	For many, problems from the #WVchemicalspill are ongoing. RT to help our water watch team track the contamination: <a href="http://ow.ly/sZX73">http://ow.ly/sZX73</a>	Other	Personal	Negative	5	1	0	0
2/3/14	@AppVoices, @cleanenergyorg, @NCCConservation demand disclosure of magnitude of Dan River #coalash spill: <a href="http://www.cleanenergy.org/environmental-groups-call-for-immediate-disclosure-of-magnitude-of-coal-ash-disaster/">http://www.cleanenergy.org/environmental-groups-call-for-immediate-disclosure-of-magnitude-of-coal-ash-disaster/ ...</a>	coal ash	Political	Negative	2	2		0
2/6/14	Tell @DukeEnergy enough is enough, clean up #coalash ponds threatening NC's waters: <a href="http://appvoices.org/rww/stopthepill/">http://appvoices.org/rww/stopthepill/ ...</a>	coal ash	Political	Negative	6	0		1

2/7/14	Have not seen any comment from @SenatorHagan, @SenatorBurr, @HowardCoble on #coalash spill polluting their state and districts.	coal ash	Political	Negative	2	3		0
1/28/14	For a speech sprinkled with anecdotes of American progress, #SOTU discussion of #energy, #climate was pretty abstract.	Energy	Political	Negative	4	2	0	0
2/3/14	An unknown amount of #CoalAsh has spilled into the Dan River: <a href="http://www.charlotteobserver.com/2014/02/03/4661193/duke-energy-plant-reports-coal.html">http://www.charlotteobserver.com/2014/02/03/4661193/duke-energy-plant-reports-coal.html</a> ...	coal ash	Informational	Neutral	27	5		0
2/4/14	Interactive map of Duke Energy #coalash spill polluting the Dan River: <a href="http://a.tiles.mapbox.com/v3/waterkeeperalliance.h69alfel/page.html">http://a.tiles.mapbox.com/v3/waterkeeperalliance.h69alfel/page.html</a> ...	coal ash	Informational	Neutral	2	2		0

2/5/14	Broken pipe at Duke @coash pond was metal, not concrete. <a href="http://ow.ly/tkxMS">http://ow.ly/tkxMS</a>	coal ash	Informat ional	Neutral	2	0		0
2/6/14	#video of #coash coating everything surrounding Danville Water Intake <a href="http://ow.ly/tlxih">http://ow.ly/tlxih</a>	coal ash	Informat ional	Neutral	3	0	1	1
2/10/14	Got questions about the NC #coash spill? EPA reps in Danville, Va. Feb. 11 to (hopefully) share some answers. <a href="http://bit.ly/1h59aq9">http://bit.ly/1h59aq9</a>	Coal ash	Informat ional	Neutral	8	3	0	0
2/11/14	Appalachian Voices @AppVoices 11 Feb 2014 First photos from the #coal slurry spill on Fields Creek, Kanawha County, #WV: <a href="http://www.flickr.com/photos/appvoices/sets/72157640844879363/">http://www.flickr.com/photos/appvoices/sets/72157640844879363/ ...</a>	Coal ash	Informat ional	Neutral	55	4	0	0



2/11/14	Here's an interactive map of the #NC #coalash spill developed by our friends at @selc_org: <a href="http://ow.ly/twmRE">http://ow.ly/twmRE</a>	Coal ash	Informational	Neutral	12	1	0	0
2/5/15	A new page on @SECoalAsh has photos and comprehensive media coverage since the beginning of Dan River #coalash spill. <a href="http://ow.ly/tk8YG">http://ow.ly/tk8YG</a>	coal ash	Informational	Neutral	3	1		0
2/2/14	U.S. #solar industry employs more than #coal, #gas combined via @GreenBiz <a href="http://grn.bz/1bb1iLV">http://grn.bz/1bb1iLV</a>	energy	Informational	Neutral	6	1		0
1/28/14	.@CoralMDavenport #SOTU update: "Executive Action a Powerful Tool on #Climate Agenda" <a href="http://nyti.ms/1ew6ZF8">http://nyti.ms/1ew6ZF8</a>	Climate Change	News	Neutral	1	0	0	0
2/4/14	New photos taken at the @DukeEnergy #coalash spill today - don't try this at home. <a href="http://bit.ly/1fXSADW">http://bit.ly/1fXSADW</a>	coal ash	News	Neutral	43	10	1	1

2/6/ 14	Waiting on @NCDENR to release results from #coalash spill, reports from @yadkinrivkeeper, @Waterkeeper aren't good: <a href="http://tinyurl.com/kd26kjs">http://tinyurl.com/kd26kjs</a>	coal ash	News	Neutral	4	0		0
2/12 /14	100,000 gals. of coal slurry spilled in W.Va. creek Feb. 11; how are officials controlling it? <a href="http://bit.ly/1boy1TL">http://bit.ly/1boy1TL</a>	Coal ash	News	Neutral	11	1	1	0
1/28 /14	A rundown on Dominion's plan to hijack community net metering: <a href="http://wp.me/p2J6aF-52">http://wp.me/p2J6aF-52</a>	Energy	News	Neutral	1	0	0	0
1/30 /14	"Considerate Consulting: Andrew Grigsby's Vision of #Sustainability" <a href="http://shar.es/QnQFG">http://shar.es/QnQFG</a>	Energy	News	Neutral	1	1	0	0
2/3/ 14	Breaking: we're tracking a #coal ash spill at Duke Energy's Dan River power plant: <a href="http://www.charlotteobserver.com/2014/02/03/4661193/duke-energy-plant-reports-">http://www.charlotteobserver.com/2014/02/03/4661193/duke-energy-plant-reports-</a>	coal ash	Personal	Neutral	8	1		0

	coal.html ...							
2/4/14	AppVoices water quality experts on the scene of NC #coalash spill, taking samples, pictures. <a href="http://bit.ly/1fXSADW">http://bit.ly/1fXSADW</a>	coal ash	Personal	Neutral	10	3	1	1
2/4/14	The intrepid @AppVoices paddlers on their way to investigate the Dan River #coalash spill	coal ash	Personal	Neutral	9	3	1	0
2/10/14	Tune in to the @maddow show tonight to see @AppVoices Amy Adams @appalactionamy discuss NC #coalash spill <a href="http://www.msnbc.com/rachel-maddow-show">http://www.msnbc.com/rachel-maddow-show</a> ...	Coal ash	Personal	Neutral	14	4	0	0
2/13/14	The Appalachian Voice with full coverage of #wwwatercrisis is on newsstands and online now: <a href="http://appvoices.org/thevoice">http://appvoices.org/thevoice</a>	Coal ash	Personal	Neutral	12	5	1	1

2/4/ 14	Team of @AppVoices scientists continue to take water samples from #coalash spill in Dan River via @mxnews: <a href="http://ow.ly/thp6y">http://ow.ly/thp6y</a>	coalash	Personal	Neutral	6	0		0
1/29 /14	Listening to @Kenwardjr on #WVchemicalspill on @nprfreshair	Other	Personal	Neutral	3	1	0	0
1/28 /14	The chamber got much quieter as Obama began discussing #climate	Climate Change	Political	Neutral	2	2	0	0
2/4/ 14	The latest, loudest alarm bell that Duke should not be storing #coalash near our state's waterways: <a href="http://appvoices.org/2014/02/04/coal-ash-spill-pollutes-dan-river/">http://appvoices.org/2014/02/04/coal-ash-spill-pollutes-dan-river/</a> ... @selc_org	coal ash	Political	Neutral	6	0		0
1/28 /14	"Believe it." #SOTU	Other	Political	Neutral	0	1	0	0

1/28 /14	Lots of very memorable lines thus far: "If you cook our troops' meals or wash their dishes, you shouldn't have to live in poverty" #SOTU	Other	Political	Neutral	0	1	0	0
1/28 /14	Education in the #SOTU was the subject of a great @nytimes editorial recently: <a href="http://ow.ly/t3nZX">http://ow.ly/t3nZX</a>	Other	Political	Neutral	0	1	0	0
1/28 /14	"Opportunity is who we are," Obama uses stories of American progress, including John Boehner's	Other	Political	Neutral	0	0	0	0
1/28 /14	Maybe 2014 will be a breakthrough year in spite of Congress.. Obama says he won't stand still when exec action can be used.	Other	Political	Neutral	1	0	0	0
1/28 /14	Good shot of Paul Ryan and Hal Rogers sitting together	Other	Political	Neutral	1	1	0	0

1/30 /14	#EPA has agreed to issue (finally!) first-ever federal rules for controlling #coalash, by the end of this year. <a href="http://bit.ly/1hRXgMX">http://bit.ly/1hRXgMX</a>	Coal ash	News	Positive	10	1	0	1
2/13 /14	Following Dan River #coalash spill, federal authorities launch a criminal investigation into @NCDENR: <a href="http://bigstory.ap.org/article/apnewsbreak-us-investigates-nc-environment-agency...">http://bigstory.ap.org/article/apnewsbreak-us-investigates-nc-environment-agency ...</a>	Coal ash	News	Positive	15	7	0	0
1/27 /14	Thankful for Wes Addington and members of @AppCitizensLaw who defend victims of #coalmining accidents. Read more - <a href="http://appvoices.org/2013/12/04/on-">http://appvoices.org/2013/12/04/on-</a>	Energy	News	Positive	4	3	0	1
2/11 /14	Thank you, @SenRockefeller, for standing up and speaking out about the importance of clean water: <a href="http://n.pr/1nqy2X4">http://n.pr/1nqy2X4</a> via @nprnews	Other	News	Positive	6	1	0	0

1/27/14	Proud to join @VCNVAorg in #RVA to tell @TerryMcAuliffe to address climate change's impacts in Virginia: <a href="http://ow.ly/t0hb8">http://ow.ly/t0hb8</a>	Climate Change	Personal	Positive	2	0	1	0
2/18/14	We're representing mountains, clean water and healthy communities at the #moralmarch in Raleigh, N.C.	Resource Conservation	Personal	Positive	36	20	1	0
2/4/14	The US Senate just passed the Farm Bill, which includes programs to expand #energy efficiency in rural communities. <a href="http://ow.ly/thteR">http://ow.ly/thteR</a>	energy	Political	Positive	1	1		0

1/28 /14	Shout out to Steve Beshear, governor of "not the most liberal part of the country." #SOTU	Other	Political	Positive	1	0	0	0
1/28 /14	"We all owe it to the American people to say what we're for, not just what we're against." #SOTU quotes.	Other	Political	Positive	6	2	0	0



APPENDIX E: CLEAN WATER FOR NORTH CAROLINA TWITTER/TWEETS

TWEET	SUBJECT MATTER	CATEGORY	MOTIVATION	RETWEET	FAVORITE	MULTIMEDIA	WEB LINK
<p><a href="#">#NorthCarolina</a> has 50 <a href="#">#coalash</a> impoundments like <a href="#">#danriver</a>. Make sure the next spill isn't in your backyard  <a href="http://bit.ly/DanRiverSpill">http://bit.ly/DanRiverSpill</a></p>	coal ash	Informational	Both	0	1	0	0
<p>What grade would you give Duke Energy for its handling of the Dan River <a href="#">#coalash</a> spill? Vote here:  <a href="http://ow.ly/tCF2w">http://ow.ly/tCF2w</a></p>	Coal ash	Informational	Both	0	0	0	0
<p>Love clean water? Protect NC's water from <a href="#">#fracking</a> and <a href="#">#naturalgas</a> development on Feb. 22 in Durham. Register: <a href="http://bit.ly/1dBimdE">http://bit.ly/1dBimdE</a></p>	Fracking	Informational	Both	0	0	0	0

CNN covers the Dan River tragedy: <a href="http://cnn.it/MG1pZP">http://cnn.it/MG1pZP</a> . Demand cleanup of other ponds in NC BEFORE disaster happens: <a href="http://bit.ly/DanRiverSpill">http://bit.ly/DanRiverSpill</a>	Coal ash	News	Both	0	0	0	0
No more #sweetheart #coalash deals this #ValentinesDay <a href="http://bit.ly/1iVR6w9">http://bit.ly/1iVR6w9</a> #danriver. Thanks @cleanenergyorg !	Coal ash	News	Both	0	0	0	0
#Naturalgas is not a clean energy alternative. <a href="http://ow.ly/sSOVY">http://ow.ly/sSOVY</a>	Energy	News	Both	3	1	0	0
Is the U.S. Awash in Decades Worth of Cheap, Abundant #NaturalGas and #Oil? <a href="http://ow.ly/t9TrI">http://ow.ly/t9TrI</a>	Energy	News	Both	0	0	0	0
#Frackquakes - Earthquakes that are most likely caused by deep well injection of #fracking wastewater <a href="http://ow.ly/t7Rty">http://ow.ly/t7Rty</a>	Fracking	News	Both	0	0	0	0

California drought sets up #fracking face-off <a href="http://ow.ly/tmq2I">http://ow.ly/tmq2I</a>	fracking	News	Both	0	0	0	0
<a href="http://ow.ly/ttd7V">http://ow.ly/ttd7V</a> Buncombe Co. residents petition against land use change impacting Bull Creek & the Swannanoa. @buncombeGov	Land Conservation	News	Both	0	0	0	0
Great blog in the Huffington Post - The right to #cleanwater: <a href="http://ow.ly/tmu0V">http://ow.ly/tmu0V</a> #SayNotoTPP	Resource Conservation	News	Both	0	0	0	0
#WestVirginia disaster stresses the need for strong regulation & environmental law enforcement. <a href="http://www.citizen-times.com/article/20140124/OPINION03/301240005...">http://www.citizen-times.com/article/20140124/OPINION03/301240005 ...</a>	Energy	Political	Both	0	0	0	0
The 'All of the Above' energy plan still favors too many #fossilfuels like #naturalgas. #ActOnClimate #frackfreenc <a href="http://bit.ly/1ewsV2I">http://bit.ly/1ewsV2I</a>	Energy	Political	Both	0	0	0	0

ow.ly/t7ddX private water cos. want to hike rates w/no public hearings...thx, @RoyCooperNC & @JanetCowell, for pushing back!	Resource Conservation	Political	Both	0	0	0	0
Ceres report: More than 1/2 of #oil and #gas wells in #drought stricken areas. http://bit.ly/1ivFM9i @Ceres News @terical @bbloomersfarm	fracking	Informational	Negative	0	0	0	0
More Than 80,000 Tons Of Coal Ash Flow Into N.C. River http://ow.ly/tmwkD	coal ash	News	Negative	1	0	0	
Advocates tried 3 times to sue Duke Energy to clean up #coalash, NC DENR shielded the utility. http://bit.ly/1gutez3 @KevinSiers	Coal ash	News	Negative	2	1	0	0
Much Of #NorthDakota's #NaturalGas Is Going Up In Flames http://ow.ly/t9UPH	Energy	News	Negative	2	0	0	0

NPR special series on the great plains #oilrush: Booming Oil Fields May Be Giving Sex Trafficking A Boost <a href="http://ow.ly/tmtQO">http://ow.ly/tmtQO</a>	Energy	News	Negative	1	0	0	0
Concern Rising with Prospect of a #ShaleGas Industry in the United Kingdom <a href="http://ow.ly/tmuTh">http://ow.ly/tmuTh</a>	Energy	News	Negative	0	0	0	0
Countries look to US #naturalgas as energy source. Increased #LNG exports could mean more #fracking <a href="http://ow.ly/t0dJd">http://ow.ly/t0dJd</a> #keepncfrackfree	Fracking	News	Negative	0	0	0	0
#Fracking in #WNC? Unlikely but still unsettling <a href="http://ow.ly/t2cKW">http://ow.ly/t2cKW</a>	Fracking	News	Negative	0	0	0	0
As the #oil industry moves in, #NorthDakota local residents move out. Find out why>> <a href="http://ow.ly/t4ZYu">http://ow.ly/t4ZYu</a> #FrackFreeNC #ActOnClimate	Fracking	News	Negative	2	0	0	0
#Ohio EPA, health officials dismiss #radioactive threat from #fracking <a href="http://ow.ly/t2fwZ">http://ow.ly/t2fwZ</a>	Fracking	News	Negative	0	0	0	0
#PA #fractivist banned from properties, including a new county hospital, owned by Cabot Oi & Gas <a href="http://bit.ly/1fITMBY">http://bit.ly/1fITMBY</a>	Fracking	News	Negative	2	0	0	0

#banfrackingnow							
Study shows that proximity to #fracking sites increases risk of #birthdefects <a href="http://ow.ly/t9SHZ">http://ow.ly/t9SHZ</a>	Fracking	News	Negative	0	0	0	0
Two new fracking sites have been proposed in Lancashire (UK) by Cuadrilla <a href="http://ow.ly/tmqWE">http://ow.ly/tmqWE</a>	Fracking	News	Negative	0	0	0	0
.@GinaEPA Please be a honey...we can't drink big oil's money. Reopen PA, TX, WY #fracking investigations. #Dontfrackus <a href="http://ow.ly/tDJnI">http://ow.ly/tDJnI</a>	Fracking	News	Negative	7	6	0	0
Looking for Spanish resources on #climatechange? Find the info you need here>> <a href="http://ow.ly/t28Jo">http://ow.ly/t28Jo</a>	Climate Change	Informational	Neutral	0	0	0	0
Watch @maddock report on the #NC #coalash spill #StopCoalAshPollution Video: <a href="http://bit.ly/LS3Esx">http://bit.ly/LS3Esx</a>	Coal ash	Informational	Neutral	0	1	0	0
Powerful Photos Go Deep Inside America's #Fracking Boom <a href="http://ow.ly/sSTSE">http://ow.ly/sSTSE</a>	Fracking	Informational	Neutral	0	0	0	0

Gasland, Part II in Boone next week: Thurs Feb 4th. Don't miss out! For more info>> <a href="http://ow.ly/t4Z09">http://ow.ly/t4Z09</a> #keepncrackfree @gaslandmovie	Fracking	Informational	Neutral	4	0	0	0
Next week: Feb 5th - Avner Vengosh on the myths & reality of #watercontamination associated w/ #shalegas & #fracking <a href="http://ow.ly/t51lh">http://ow.ly/t51lh</a>	Resource Conservation	Informational	Neutral	1	0	0	0
Historic Thousands on Jones Street tomorrow! <a href="http://www.hkonj.com/">http://www.hkonj.com/</a> <a href="http://ow.ly/i/4wa4i">http://ow.ly/i/4wa4i</a>	Resource Conservation	Informational	Neutral	0	1	1	0
Big #oil and #gas should disclose emissions, environmental groups say <a href="http://ow.ly/tgVGv">http://ow.ly/tgVGv</a>	Energy	News	Neutral	0	0	0	0
MEC Seeks To Cut Water Contamination Liability For Drilling Companies <a href="http://bit.ly/1c4LytX">http://bit.ly/1c4LytX</a> #keepn	fracking	News	Neutral	0	0	0	0

cfrackfree							
Moral March on #Raleigh today! We stand with #NC for #cleanwater, #air and #socialjustice for all!	Resource Conservation	Personal	Neutral	2	0	0	0
March for #environmentaljustice on February 8th in Raleigh! Get involved, watch: <a href="http://bit.ly/1guhOOR">http://bit.ly/1guhOOR</a>	other	Political	Neutral	0	0	0	0
Protect your community from #fracking in #NC. Hear from Calvin Tillman, on Feb 22 in Durham. Register today <a href="http://bit.ly/1dBimdE">http://bit.ly/1dBimdE</a>	Fracking	Informational	Positive	5	3	0	0
<a href="http://ow.ly/tB6n6">http://ow.ly/tB6n6</a> US launching criminal investigation of Duke, DENR on coal ash spill.	Coal ash	News	Positive	0	0	0	0
#NYCmayor, Bill de Blasio, says no to #fracking <a href="http://ow.ly/tOfHF">http://ow.ly/tOfHF</a>	Fracking	News	Positive	3	0	0	0
Thousands gathered in Raleigh this Saturday for #MoralMarch <a href="http://ow.ly/i/4yx8i">http://ow.ly/i/4yx8i</a> #FrackFreeNC	Fracking	News	Positive	0	0	0	0



The #MoralMarch on #Raleigh showed the nation that #NorthCarolina is ready to fight back>> <a href="http://slate.me/1bIHLmt">http://slate.me/1bIHLmt</a> @Slate @Dahlialithwick	other	News	Positive	0	0	0	0
<a href="http://ow.ly/to50s">http://ow.ly/to50s</a> thanks to @CouncilofCDNs, there's a new #fractivist toolkit for communities to use! #frackfreenc	fracking	Political	Positive	0	0	0	0

APPENDIX F: NORTH CAROLINA COASTAL FEDERATION TWITTER/TWEETS

DATE	TWEET	SUBJECT MAT	CATEGORY	MOTIVATION	RETWEET	FAVORITE	MULTIMEDIA	WEBSITE
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		TER						LI N K
2/ 13 /1 4	Feds launching criminal probe of NC DENR after Dan River coal ash spill -3rd largest in US history, btw <a href="http://www.startribune.com/business/245377311.html">http://www.startribune.com/business/245377311.html</a> ...	Coal ash	News	Both	0	0	0	0
2/ 7/ 14	Washington Daily News: NCDOT officials get an earful on ferry tolls #ncpol #ncga <a href="http://www.thewashingtondailynews.com/2014/02/06/speakers-oppose-ferry-tolls/">http://www.thewashingtondailynews.com/2014/02/06/speakers-oppose-ferry-tolls/</a> ...	Coastal Conservation	News	Both	0	0	0	0
2/ 8/ 14	US House clears Hatteras beach driving bill - VA Pilot #ncpol <a href="http://hamptonroads.com/2014/02/house-oks-hatteras-beachdriving-bill">http://hamptonroads.com/2014/02/house-oks-hatteras-beachdriving-bill</a> ...	Coastal Conservation	Political	Both	0	0	0	0

1/ 28 /1 4	Raleigh N&O: legislature pits ferry \$ vs. road \$ on NC coast #ncpol <a href="http://www.newsobserver.com/2014/01/27/3569739/road-worrier-nc-legislature-pits.html">http://www.newsobserver.com/2014/01/27/3569739/road-worrier-nc-legislature-pits.html</a> ...	other	Political	Both	0	0	0	0
2/ 7/ 14	Huge Leak of Coal Ash Slows at North Carolina Power Plant, via @nytimes <a href="http://nyti.ms/1buXkxL">http://nyti.ms/1buXkxL</a>	coal ash	News	Negative	1	0	0	0
2/ 4/ 14	Duke researchers raise concerns about rising ocean acidity. <a href="http://www.nccoast.org/m/article.aspx?k=8665aea9-11e7-4cd1-b125-1a5449cc4a04">http://www.nccoast.org/m/article.aspx?k=8665aea9-11e7-4cd1-b125-1a5449cc4a04</a> ...	Coastal Conservation	News	Negative	1	1	0	1

2/4/14	VA Pilot: NC closes speckled trout fishery after cold snap hurts fish population #ncpol <a href="http://hamptonroads.com/2014/02/nc-stops-speckled-trout-fishing-after-coldstun-events...">http://hamptonroads.com/2014/02/nc-stops-speckled-trout-fishing-after-coldstun-events ...</a>	Wildlife Conservation	News	Negative	0	0	0	0
2/14/14	North Carolina Coastal Federation: Kitty Hawk Considers Beach Taxing Plan <a href="http://www.nccoast.org/Article.aspx?k=cba68d0-aa47-406a-a4eb-287a32861fd1&amp;utm_source=feedburner&amp;utm_medium=email&amp;utm_campaign=Feed%3A+NCCFNews+%28Coastal+Review+Online%29#.Uv4Jpd-aX90.twitter...">http://www.nccoast.org/Article.aspx?k=cba68d0-aa47-406a-a4eb-287a32861fd1&amp;utm_source=feedburner&amp;utm_medium=email&amp;utm_campaign=Feed%3A+NCCFNews+%28Coastal+Review+Online%29#.Uv4Jpd-aX90.twitter ...</a>	Coastal Conservation	Personal	Negative	0	0	0	1
2/7/14	Everyone knows Lake Mattamuskeet is important, troubled; no one knows why; no \$ to get answers #ncga #ncpol <a href="http://nccoast.org/m/article.aspx?k=3c602cdb-56d8-4617-8487-107cab1ad7c0...">http://nccoast.org/m/article.aspx?k=3c602cdb-56d8-4617-8487-107cab1ad7c0 ...</a>	Land Conservation	Political	Negative	1	0	0	1

2/4/14	A circle of stones and a puzzle for lovers of the Cape Hatteras lighthouse. <a href="http://www.nccoast.org/m/article.aspx?k=f988c548-a51e-461b-b3ed-bd988e3e1040">http://www.nccoast.org/m/article.aspx?k=f988c548-a51e-461b-b3ed-bd988e3e1040</a> ...	Coastal Conservation	Informational	Neutral	0	1	0	1
2/4/14	WUNC Radio: 5 things you should know about NCDOTs proposed ferry rate hike. <a href="http://wunc.org/post/five-things-you-should-know-about-ncs-proposed-ferry-toll-hikes">http://wunc.org/post/five-things-you-should-know-about-ncs-proposed-ferry-toll-hikes</a> ...	Coastal Conservation	Informational	Neutral	0	0	0	0
2/12/14	More OBX snow <a href="http://fw.to/iD5Qvqe">http://fw.to/iD5Qvqe</a>	other	Informational	Neutral	0	0	1	0
2/6/14	FYI - here's your pileated woodpecker pic for Thursday morning #peckerheaven #habitat	Wildlife Conservation	Informational	Neutral	2	2	1	0

2/ 12 /1 4	North Carolina Coastal Federation: Bald Head Prepares Terminal Groin Project <a href="http://nccoast.org/Article.aspx?k=b430ce83-7785-440b-81bb-ad3887824f48#.UvuKcPWQtU.twitter">http://nccoast.org/Article.aspx?k=b430ce83-7785-440b-81bb-ad3887824f48#.UvuKcPWQtU.twitter ...</a>	other	News	Neut ral	3	0	0	1
2/ 5/ 14	Coastal Fed ?s re Hofmann Forest leads Corps to review clearing of 5,500+ acres, wetland destruction #ncpol <a href="http://www.nccoast.org/m/article.aspx?k=9208ec7a-9e12-40e1-996c-289c998f0bf4">http://www.nccoast.org/m/article.aspx?k=9208ec7a-9e12-40e1-996c-289c998f0bf4 ...</a>	land cons ervat ion	Perso nal	Neut ral	1	0	0	1
2/ 3/ 14	A circle of stones and a puzzle for lovers of the Cape Hatteras lighthouse. <a href="http://www.nccoast.org/m/article.aspx?k=f988c548-a51e-461b-b3ed-bd988e3e1040">http://www.nccoast.org/m/article.aspx?k=f988c548-a51e-461b-b3ed-bd988e3e1040 ...</a>	other	Perso nal	Neut ral	0	1	0	1

2/ 10 /1 4	Our Coast: Kayaking Ocracoke in Winter <a href="http://www.nccoast.org/m/article.aspx?k=ffc21481-1028-4366-9b52-2c8fc460ee33">http://www.nccoast.org/m/article.aspx?k=ffc21481-1028-4366-9b52-2c8fc460ee33 ...</a>	other	Personal	Neutral	0	0	0	1
2/ 11 /1 4	A horse who learns songs around a piano inside a house and other cultural tidbits re Ocracoke Isle <a href="http://www.nccoast.org/m/">http://www.nccoast.org/m/</a>	other	Personal	Neutral	0	0	0	1
1/ 30 /1 4	NC Coastal regulators studying new approaches to managing NCs eco and politico sensitive inlets #ncga #ncpol <a href="http://www.nccoast.org/m/article.aspx?k=18c80f28-b0b8-4016-82f9-9469500e3d73">http://www.nccoast.org/m/article.aspx?k=18c80f28-b0b8-4016-82f9-9469500e3d73 ...</a>	Coastal Conservation	Political	Neutral	1	0	0	1

2/ 12 /1 4	Support @USFWSHQ Coastal Program! #iheartestuaries @SenatorBarb @SenShelbyPress @RepHalRogers @NitaLowey	Coas tal Cons ervat ion	Politi cal	Neut ral	0	0	1	0
2/ 13 /1 4	Today's Good News: 2 non-profits, 2 universities, a local biz & a city team up, clean up 2 Wilmington creeks <a href="http://www.nccoast.org/m/article.aspx?k=74cd2159-76d8-4b73-8a8b-8b930ecaa57f">http://www.nccoast.org/m/article.aspx?k=74cd2159-76d8-4b73-8a8b-8b930ecaa57f</a> ...	Coas tal Cons ervat ion	News	Positi ve	0	0	0	1
1/ 28 /1 4	Two brothers, one friend, three college degrees - and a lotta fish: meet the new brand of NC fisherman <a href="http://nccoast.org/m/article.aspx?k=55082060-f54c-40bb-b5de-63ff506d10c7">http://nccoast.org/m/article.aspx?k=55082060-f54c-40bb-b5de-63ff506d10c7</a> ...	other	News	Positi ve	0	0	0	1



2/14/14	.@stoptitan: China announces \$1.6B air fund, #polluters like #cement plants are not to be approved on principle <a href="http://usat.ly/1evrGAm">http://usat.ly/1evrGAm</a>	other	News	Positive	1	1	0	0
2/4/14	In VA, "living shorelines" now popular to restore shoreline; Coastal Fed has promo'd them in NC for yrs. <a href="http://hamptonroads.com/2014/02/living-shorelines-gaining-favor-erosion-buffers...">http://hamptonroads.com/2014/02/living-shorelines-gaining-favor-erosion-buffers ...</a>	Coastal Conservation	Personal	Positive	0	0	0	0
2/7/14	A: aw, ok: just little ol us, the NC Coastal Federation. Planting on, and providing protection for, the world's prettiest coast since 1980	Coastal Conservation	Personal	Positive	1	1	0	0
2/6/14	Pileated Woodpeckers rejoice: NC Coastal Land Trust saving 2,300 acres in Pender Cty #peckerheaven #habitat <a href="http://www.nccoast.org/m/article.aspx?k=5673057b-f6d2-4dd7-bd05-cc558d050a26...">http://www.nccoast.org/m/article.aspx?k=5673057b-f6d2-4dd7-bd05-cc558d050a26 ...</a>	land conservation	Personal	Positive	0	0	0	1

2/7/14	Q: who's planting 123,000 (no, that's NOT a typo) trees over 407 acres as part of a massive wetland restoration on the NC Coast?	land conservation	Personal	Positive	5	0	0	0
1/29/14	Shellabrate NC Oysters C'mon! There's a party goin on around here a shell-a-bration 2 last thru out the year <a href="http://nccoast.org/m/article.aspx?k=ebee01b5-268c-41fc-b520-b55c54762076">http://nccoast.org/m/article.aspx?k=ebee01b5-268c-41fc-b520-b55c54762076</a> ...	other	Personal	Positive	1	0	0	1
2/14/14	.@NCFreshCatch thanks for all your hard work promoting & celebrating our favorite bivalve, the oyster! #cleanwater #oysters #NC	Coastal Conservation	Political	Positive	1	0	0	0

APPENDIX G: AUDUBON NORTH CAROLINA FACEBOOK

Date	Post	Topic	Category	Focus	C E	Like s	Share s	Comment s	Image/Vide o	Link to websit e
2/14/15	Starting TODAY join in the Great Backyard Bird Count to show your love for our feathered friends. LEARN MORE --> <a href="http://ncaudubonblog.org/.../north-carolina-is-for-the-birds.../">http://ncaudubonblog.org/.../north-carolina-is-for-the-birds.../</a> Starting TODAY join in the Great Backyard Bird Count to show your love for our feathered friends. LEARN MORE --> <a href="http://ncaudubonblog.org/.../north-carolina-is-for-the-birds.../#NCGBBC">http://ncaudubonblog.org/.../north-carolina-is-for-the-birds.../</a> #NCGBBC	Wildlife Conservation	Personal	Neutral		12	12	0	Image	1
2/13/15	Shuckster - the American Oystercatcher our Facebook fans helped name - gets his own feature article! On our blog read about how AMOY populations are holding steady and might even be increasing thanks to our conservation work! Click here --> <a href="http://oystercatchertracking.org/press-covers-good-news-ab.../">http://oystercatchertracking.org/press-covers-good-news-ab.../</a>	Wildlife Conservation	Personal	Neutral		12	0	0	Image	0

2/2/14	It's Superb Owl Day! See how The National Audubon Society did that - Super Bowl = Superb Owl. So clever! Post your favorite owl pics and tag them with #Superb_Owl all day long!	Wildlife Conservation	Informational	Positive		44	0	0	Image	0
2/15/14	"SHARE" if you are counting this weekend for the Great Backyard Bird Count!!! Join citizen scientists and bird nerds across North Carolina for Audubon's Great Backyard Bird Count (GBBC) now through Monday. It's easy - just count for at least 15 minutes and submit your sightings. Get all the details here --> <a href="http://ncaudubonblog.org/.../north-carolina-is-for-the-birds.../#ncgbbc">http://ncaudubonblog.org/.../north-carolina-is-for-the-birds.../#ncgbbc</a>	Wildlife Conservation	Personal	Positive		6	0	0	Image	1
1/27/14	LEGAL VICTORY FOR BIRDS: The U.S. Ninth Circuit Court of Appeals rejected the U.S. Department of the Interior's Arctic Ocean oil lease sales, great news for Spectacled Eiders and other wildlife! Audubon and other groups have been fighting this battle in the courts. Learn more and see our statement: <a href="http://www.audubon.org/.../offshore-oil-leases-americas-arcti...">http://www.audubon.org/.../offshore-oil-leases-americas-arcti...</a> (Photo: Spectacled Eider by USFWS)	Wildlife Conservation	Political	Positive		48	13	3	Image	0

APPENDIX H: ENVIRONMENT NORTH CAROLINA FACEBOOK

Date	Post	Topic	Category	Focus	CE	Likes	Shares	Comments	Image/Video	Link to website
2/6/14	What countries are most responsible for global warming? A new report attempts parcel out the answer by degree. The US and China lead the way. That's why it's up to us to lead the way and solve the problem. <a href="http://bit.ly/1bgfUtF">http://bit.ly/1bgfUtF</a>	Climate Change	Informational	Both		8	3	0	image	0
2/10/14	Our interns got over 30 calls from our members in @Congressman G.K. Butterfield's district asking him to oppose any efforts to stop the EPA for regulating carbon pollution.	Climate Change	Personal	Neutral		6	0	0	Image	0
2/4/14	Offshore wind is growing every year! Imagine what it will be like when NC and other US states get in the game! The time to move forward with offshore wind is now.	Energy	Political	Neutral		16	3	1	image	0
2/3/14	Solar jobs are on the rise! In fact people employed in the solar industry just passed the amount employed in the coal and natural gas industries COMBINED!	Energy	Political	Neutral		12	13	1	Image	0

	SHARE this to help spread the success story of solar power!									
2/6/14	Yesterday our interns collected photo petitions to Gov. McCrory letting him know how much the students at UNC love clean water!	Resource Conservation	Political	Neutral		20	17	0	Image	0
1/31/14	Bioluminescent phytoplankton make for some amazing pictures. FYI, they glow when they are stressed out, so if you are someplace where these little guys live, go easy on them! For more info, read here: <a href="http://bit.ly/1jYzi3Y">http://bit.ly/1jYzi3Y</a> Have a great weekend!	Other	Informational	Positive		6	0	0	Image	0
1/30/14	Over 800 schoolchildren from Hong Kong got together to call for protection of the ocean environment. Look at what they did!	Coastal Conservation	News	Positive		37	13	0	Image	0
2/14/14	We'd also like to share our love of the Outer Banks! LIKE and SHARE if you could use some beach time after this storm!	Other	Personal	Positive		1	1		Image	0

APPENDIX I: CLEAN WATER FOR NORTH CAROLINA FACEBOOK

2/14/14	1,500! Wow - thanks for your support!	Other	Personal	Both		21	0	0	Image	0
2/13/14	Kevin Siers' cartoon brings it home: NC needs to stop shielding its largest utility from taking responsibility for #coalash pollution, and start holding Duke accountable!	Coal ash	Political	Both		16	2	2	Image	0
1/26/14	The Marcellus Shale Documentary Project aims to tell the story of how natural gas development impacts people and communities living in shale country. The photo below shows enough natural gas bubbling from a natural spring to light it on fire. This gas showed up in the spring after David Headley's property was fracked in Smithfield, PA. Headley, who owns horses, discovered the bubbles when his horses stopped drinking water from this location after the fracking. For more, check out <a href="http://ow.ly/sSTJ3">http://ow.ly/sSTJ3</a>	Fracking	News	Negative		9	3	0	Image	0

2/12/14	<p>Winter has paid another snowy visit to North Carolina! While the snow falls, consider registering for our meeting held on Saturday, February 22 in Durham.</p> <p>We are very excited to welcome, Calvin Tillman, former mayor of DISH, TX and co-founder of ShaleTest for this meeting. You may remember Tillman from his appearance on GASLAND when he described the noise and air pollution coming from natural gas compressor stations near his community. Come learn about what we can do to protect NC from fracking - register today!  <a href="http://bit.ly/1dBimdE">http://bit.ly/1dBimdE</a></p>	Energy	Informational	Neutral		7	1	0	Image	0
1/28/14	<p>Discussion of fracking in the western part of our state has spurred a lot of questions. If you haven't read this column by John Boyle then be sure to take a look!  <a href="http://ow.ly/t2coj">http://ow.ly/t2coj</a> Pictured: Black Mountain, NC</p>	Fracking	Informational	Neutral		4	0	0	Image	0
2/9/14	<p>We have a right to clean water! If the Transpacific Partnership Trade Agreement is authorized by President Obama then regulations that protect our food and water will fall by the wayside.</p>	Resource Conservation	Informational	Neutral		9	0	2	Image	0



	Check out this blog to learn more>> <a href="http://ow.ly/tmurT">http://ow.ly/tmurT</a>									
2/15/14	Our meeting, "Fracking in NC? Science, Justice and Protecting Communities" is only one week away! It is a fantastic opportunity to hear national and local activists, researchers, and local elected officials about ways that we can prevent fracking in our state! Please consider joining us, registration found here: <a href="http://bit.ly/1dBimdE">http://bit.ly/1dBimdE</a>	Fracking	Personal	Neutral		8	2	0	Image	0

2/14/14	Do you love clean water? Iris Marie Bloom (pictured below: front left), founder of Protecting Our Waters sure does and has been fighting for clean water and environmentally just communities in Pennsylvania. Iris has been leading the charge help stop fracking and shale gas development including pipeline infrastructure and LNG export terminal projects. Hear from Iris Marie Bloom and other national speakers and leaders on February 22 for our meeting: "Science in NC? Science, Justice, and Protecting Communities" Register here: <a href="http://bit.ly/1dBimdE">http://bit.ly/1dBimdE</a>	Fracking	Personal	Neutral		9	3	0	Image	0
	Did you hear the great news? Earlier this week, the CEO of Shell Oil announced that they would not drill in the Arctic! Read the press release here>> <a href="http://bit.ly/1hUliXA">http://bit.ly/1hUliXA</a>	Energy	News	Positive		11	1	1	Image	0
2/10/14	We had a great time marching for justice along with thousands of others at Saturday's Moral March on Raleigh! Check out more photos on our Flickr photostream here>> <a href="http://bit.ly/1dCRNFi">http://bit.ly/1dCRNFi</a>	Other	Political	Positive		11	0	0	Image	1

	#MoralMarch #HKonJ									
2/7/14	Historic Thousands on Jones Street tomorrow morning! Join us as we rally for for social, economic, environmental, health and voting justice! Join over a hundred diverse organizations working together for justice to make this the largest march/rallyever in the South! Visit <a href="http://www.hkonj.com">www.hkonj.com</a> for more info	Other	Political	Positive		7	1	0	Image	0
1/30/14	Investor-owned water utilities want permission to begin raising customer rates in NC without holding customer hearings, but the Attorney General and, most recently, state Treasurer are standing up to this injustice! Our thanks to Attorney General Roy Cooper and NC Treasurer Janet Cowell for recognizing the importance of customers having a voice in drinking water decisions. <a href="http://bit.ly/1lo9W3F">http://bit.ly/1lo9W3F</a>	Other	Political	Positive		8	0	0	Image	0

**APPENDIX J: NORTH CAROLINA COASTAL FEDERATION FACEBOOK**

<b>Date</b>	<b>Post</b>	<b>Topic</b>	<b>Category</b>	<b>Focus</b>	<b>CE</b>	<b>Likes</b>	<b>Shares</b>	<b>Comments</b>	<b>Image/Video</b>	<b>Link to website</b>
2/11/14	Hello! Today's CRO is appropriate for much of the coast today: A Winter Walk Through Culture Sam Jones of Ocracoke often let his beloved horse, IkeyD, into the house for songs around the piano. Learn more about Sam, his horse and other cultural tidbits of the island. <a href="http://bit.ly/1kyOMhO">http://bit.ly/1kyOMhO</a>	Other	Personal	Neutral		13	0	3	Image	1
2/7/14	Happy Friday, all! Here's today's CRO: What's Wrong With Lake Mattamuskeet? The largest natural lake in the state is in trouble. Everybody who has anything to do with the lake is worried, but no one really knows what's causing the problems or how to fix them. <a href="http://bit.ly/1eFj3aP">http://bit.ly/1eFj3aP</a>	Resource Conservation	Informational	Both		7	1	2	Image	1

2/5/14	Your hump day CRO: Corps Investigates Ditching in Hofman The N.C. Coastal Federation's request for information spurred the Army Corps of Engineers to investigate possible illegal ditching of wetlands in the Hofmann Forest. (photo from 1954) <a href="http://bit.ly/1ipPDgM">http://bit.ly/1ipPDgM</a>	Land Conservation	Informational	Negative		13	1	1	Image	1
2/1/14	Check out what's going on in the Southeast region in early 2014, including a 'Shored Up' film screening, snow and volunteer renovation days at the Coastal Education Center.	Coastal Conservation	Informational	Neutral		14	0	2	Image	0

APPENDIX K: APPALACHIAN VOICES FACEBOOK

Date	Post	Topic	Category	Focus	CE	Likes	Shares	Comments	Image/Video	Link to website
4/10/14	Representatives from the EPA are holding a public meeting TUESDAY from 6:30 - 8 p.m. in Danville to provide an update on the Dan River coal ash disaster and answer questions (we hope)! City of Danville Municipal Building, City Council Chambers, 4th floor, 427 Patton Street. Here's what the river looks like today ...	Coal ash	Informational	Neutral		5	0	0	Image	0
4/4/14	Photos from the site of the Eden, N.C. coal ash spill, where Appalachian Voices team members have been on the scene since last night, conducting water testing and surveying the damage. For more info, visit <a href="http://appvoices.org/.../04/coal-ash-spill-pollutes-dan-river/">http://appvoices.org/.../04/coal-ash-spill-pollutes-dan-river/</a>	Coal ash	Informational	Neutral		25	30	3	Image	1
4/11/14	West Virginia Slurry Spill on Fields Creek.	Coal ash	News	Neutral		48	84	19	Image	0

4/11/14	<p>First photos from the unfolding slurry spill in West Virginia. As Program Director Matt Wasson said in an email, the pics "can't really convey how disgusting the water really is."</p> <p>View more at <a href="http://www.flickr.com/photos/appvoices/sets/72157640844879363/">http://www.flickr.com/photos/appvoices/sets/72157640844879363/</a></p>	Coal ash	News	Neutral		19	16	5	Image	1
4/4/14	<p>We are having a Volunteer Night tomorrow Wednesday, February 5 from 6-9pm at our Boone office located at 171 Grand Blvd! Our latest issue of The Appalachian Voice newspaper will be here and we need your help getting it ready to ship out. As always, there will be free pizza and soda. Please email <a href="mailto:maeve@appvoices.org">maeve@appvoices.org</a> or call (828) 262-1500 if you are able to come. See you tomorrow!</p>	Other	Personal	Neutral		5	1	3	Image	0
1/28/14	<p>Obama seemed to rush through an obligatory discussion of energy without honing in on any details or using the type of anecdotes spread throughout the rest of the SOTU. What did you think of his remarks on natural gas and solar?</p>	Energy	Political	Neutral		12	1	6	Image	0

4/8/14	We're at the #moralmarch with thousands of determined people in Raleigh, N.C., today representing the mountains and clean water.	Other	Political	Positive		242	81	8	Image	0
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APPENDIX L: DOGWOOD ALLIANCE FACEBOOK

Date	Post	Topic	Category	Focus	C E	Like s	Share s	Commen ts	Image/Vid eo	Link to websit e
2/14/14	We have so much love, respect, and admiration for all our dedicated supporters! From the bottom of our forest-loving hearts: Happy Valentine's Day!	Resource Conservation	Personal	Positive		126	3	0	Image	0
2/11/14	Ain't that just the truth? <a href="http://bit.ly/1g32dmt">http://bit.ly/1g32dmt</a>	Other	Informational	Neutral		12	1	0	Image	1
2/6/14	Stand up for what you believe in, and chances are you WON'T be alone! Help us save North Carolina's Hofmann Forest! <a href="http://www.dogwoodalliance.org/?p=5736">http://www.dogwoodalliance.org/?p=5736</a>	Land Conservation	Political	Positive		9	2	0	Image	1
1/29/14	Don't let our US forests be burned so that Europe can turn on its lights. Watch & share this #biomass video: <a href="http://www.dogwoodalliance.org/wetlandsupin smoke">www.dogwoodalliance.org/wetlandsupin smoke</a>	Resource Conservation	Political	Neutral		76	14	7	Image	1

1/27/14	Danna Smith took Dr. Anna Stephenson of the UK Department of Energy and Climate Change on a field trip. Seems like Dogwood Alliance's "Our Forests Aren't Fuel" campaign is on the radar and scientific investigation is underway.	Climate Change	Informational	Neutral		15	0	0	Image	0
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