



MEMORANDUM
Town of Nags Head
Planning & Development Department

To: Planning Board
From: Holly B. White, Principal Planner
Kate Jones, Senior Environmental Planner
Date: January 14, 2022
Subject: Electric Vehicle Action Plan

BACKGROUND

The Planning Board initiated discussion of electric vehicle charging stations in June 2019, and Staff prepared a detailed memo the following month to facilitate discussion (available here [online](#) at page 51). These initial discussions led to the inclusion of an Electric Vehicle Action Plan as part of the Planning & Development Department and Septic Health FY2020-2021 Strategic Work Plan, with the general goal being to support the increasing prevalence of electric vehicles.

Nags Head Electric Vehicle Action Plan

Staff has met several times with Dr. Timothy Johnson and Masters of Environmental Management (MEM) Program students Camila Ospina, Narissa Petchumrus, and Will Price to discuss the scope of work. The students have provided a project proposal outlining a detailed scope of work for the project (see attached PDF- Electrifying the Outer Banks: Nags Head Electric Vehicle Action Plan). At this month's meeting, Camila, Will, and Narissa will join the Planning Board via zoom to make a brief presentation on the project status and hope to have a discussion with the Planning Board on their perspectives on EV. These questions include, but are not limited to:

- What are your general perspectives on EV?
- Have prospective homeowners been inquiring about EV infrastructure? Have you seen more homeowners with EVs?
- Have you seen customers visit business to utilize EVs?
- From a business owner perspective, what are your thoughts on EVs/EV infrastructure?
- What do you think businesses would need to be willing to host an EV charger in their lot?
- From a planning/land use perspective, what kind of potential do you see regarding installing EV charging infrastructure within 1 year, 5 years, and 10 years?
- What opportunities and barriers do you see regarding EV in general?
- What opportunities and barriers do you see when it comes to available land for hosting EV infrastructure?
- From your perspective, what is the level of knowledge on EV for citizens and business owners? What types of education are needed?

- Are there important stakeholders that should be engaged during this process?
- Who are important partners that should be engaged for implementation?

Following discussion, staff and the students will be available to answer any questions.

Attachment:

- Project Proposal- Electrifying the Outer Banks: Nags Head Electric Vehicle Action Plan
- Presentation



Electrifying the Outer Banks: Nags Head Electric Vehicle Action Plan

Advisor: Professor Timothy Johnson, PhD

Team: Narissa Jimenez-Petchumrus, Camila Zarate Ospina, Will Price



Research Questions

1. With the numbers and use of EVs increasing, is there sufficient charging and other supporting infrastructure in the community to accommodate this increase as well as the needs of the town, residents, businesses, and visitors?
2. What steps can the town take to improve any deficient or less than adequate conditions for EVs?

Methods and Resources of Support

Phase I – Introductory phase

- Research on general EV trends
- Summary of the basics of EVs and EV infrastructure → community members
- Review of the Town of Nags Head → geography, types of business.
- Methods and resources: EV action plans from other cities, research on climate change impacts in the Mid-Atlantic region.



Methods and Resources of Support

Phase II – Core research

- Baseline: existing conditions → infrastructure, policies, regulation regarding EVs and EV infrastructure.
- Identification of stakeholders and compilation of opinions and needs (local businesses, property owners, rental management companies, Dominion Energy)
- Opportunities and challenges: environmental challenges of a coastal town, maintenance costs of EV infrastructure.
- How to implement and fund an EV Action Plan? Guidance on siting and permitting processes and funding mechanisms (utilities, federal government, Congress bills, green banks).
- Methods and resources: individual research, meetings with stakeholders, and engagement with the client.



Methods and Resources of Support

Phase III – Analysis

- Projections for 2, 5 and 10 years of the Town of Nags Head planning needs regarding EVs.
- Discussion of projected EV, battery, charger trends as these affect infrastructure needs.
- Methods and resources: findings from phases I and II, publicly available data, population projections, engagement with the client to ensure accuracy of assumptions.



Methods and Resources of Support

Phase IV – Recommendations

- Comparison between best practices from similar towns/Coastal areas found during phases I and II aimed to provide a clear route for the local government to change or advance the existing condition of the Town forwards a favorable scenario for EVs.
- Recommendations on how to address resiliency
- Guidance to property managers, rental property owners, and local businesses
- Two potential sources of financial support.
- Comprehensive guide on how to implement the EV Action Plan.





Expected Results and Report Format

The Electric Vehicle Action Plan for the Town of Nags Head will encompass:

- Summary of the role of EVs in climate mitigation efforts
- Brief background on EVs
- Analysis of existing conditions for electric vehicles
- Stakeholder needs
- Opportunities and constraints for EVs in Nags Head
- Sources of funding for the Plan
- Scenarios for EV growth
- Recommendations



Electric Vehicle Action Plan
Town of Nags Head, North Carolina

2022

Thank you!



Electrifying the Outer Banks: Nags Head Electric Vehicle Action Plan

Fall 2021 / Spring 2022

By:

Camila Zarate Ospina

Narissa Petchumrus

Will Price

Faculty Advisor:

Timothy Johnson

Masters project proposal submitted in partial fulfillment of the requirements for the Master of Environmental Management degree in The Nicholas School of the Environment of Duke University

We certify the following:

This proposed MP does not involve human subjects research.

This proposed MP does not involve the use of animals in research.

This proposed MP does not involve signing a non-disclosure agreement.

Student Signature:

Date:

Student Signature:

Date:

Student Signature:

Date:

Advisor Signature:

Date:

Part 1: Scope of Work

A. Introduction

Our team will be creating an Electric Vehicle Action Plan for the coastal community of Nags Head, North Carolina. The rise of electric vehicles (EVs) is of special interest to Nags Head for two reasons. First, climate change will be especially devastating to coastal communities as sea levels rise and storms become more frequent and severe, and electric vehicles contribute far less to global warming than fossil fuel vehicles. Second, Nags Head is a beach town which relies on tourists arriving by car to support its economy, which will necessitate adapting to the needs of electric vehicles in order to serve and attract visitors arriving in electric cars.

Nags Head is one of the largest towns on the Outer Banks, a string of barrier islands that stretch along North Carolina's coast. Nags Head is 6.5 square miles in area, with 11 miles of oceanfront. The town has a year-round population of roughly 3,000, but at the height of tourism season can reach 30-40,000 in population.¹

Addressing climate change is especially important for coastal communities like Nags Head. The National Oceanic and Atmospheric Administration (NOAA) predicts that floods at least 3 feet above the current sea level will occur by 2050. The Outer Banks stands to suffer huge amounts of damage as the sea level rises--Dare County, which encompasses most of the Outer Banks, has nearly 8,000 homes below the 3 feet level.² Hurricanes hit the Outer Banks almost every year, often causing millions of dollars in damages.³ Adoption of electric vehicles helps to slow the climate change that threatens the Outer Banks, because EVs produce significantly fewer emissions that cause global warming.⁴

Moreover, Nags Head relies on tourism. The town's 3,000 person population increases by tenfold in the summer. There is no public transportation to Nags Head. The only way on or off the island is by car or boat. Electric car sales are growing steadily in the United States. In 2013,

¹ The Outer Banks of North Carolina. *Nags Head, NC*. <https://www.outerbanks.org/plan-your-trip/towns-and-villages/nags-head/>

² Surging Seas Risk Finder. https://riskfinder.climatecentral.org/state/north-carolina.us?comparisonType=county&forecastType=NOAA2017_int_p50&impact=Housing&impactGroup=Buildings&level=3&unit=ft

³ Dare County. *Hurricane History Since 1985*. <https://www.darenc.com/departments/emergency-management/hurricanes/hurricane-history>

⁴ The Congressional Research Service. *Environmental Effects of Battery Electric and Internal Combustion Engine Vehicles*. June 16, 2020. <https://sgp.fas.org/crs/misc/R46420.pdf>

0.1 million EVs were sold in the U.S. In 2017, 0.4 million were sold. Last year, in 2020, 1.1 million electric cars were sold nationally.⁵ From 2015 to 2017, sales shares of new EVs were about 1%. From 2018 to 2020, EVs have held roughly 2% of the sales shares for new cars.⁶ The U.S. is the third largest consumer of EVs, behind Europe and China.⁷ The U.S. car market declined 23% overall in 2020 due to COVID, but EV sales declined less than the overall market, maintaining a 2% market share.⁸ In addition, several major automakers in the U.S. have committed to producing solely electric vehicles in the future, and states like California have instituted bans on new internal combustion vehicles sales after 2035.

In other words, EVs are here to stay, and current trends indicate that more and more Americans will be driving them in the future.

EVs require dedicated car chargers to make road trips feasible, just like fossil fuel vehicles require gas stations along their route. Electric car chargers are categorized into different levels based on the amount of power they are able to deliver, with higher levels able to more quickly recharge an EV's batteries. The fastest type of chargers are DC fast chargers, which are able to quickly recharge an EV's entire battery in less than an hour. DC fast chargers also require significant infrastructure, including a large transformer and cooling unit installed near to the charging station. Nags Head currently does not have any fast chargers within its borders.⁹ There is a Tesla-brand fast charger in the neighboring Kill Devil Hills to the North. EV drivers with non-Tesla cars would currently have to travel 60 miles inland to Elizabeth City, or 45 miles south to Avon, to charge. In other words, driving a non-Tesla EV to Nags Head is not currently feasible without planning ahead. It is at best very inconvenient. Even Tesla drivers would have to stop off in the neighboring town of Kill Devil Hills to charge before returning to Nags Head. As more and more Americans drive electric cars, Nags Head will need to provide convenient refueling options for visitors in order to continue to attract visitors.

However, the Outer Banks are a particularly challenging place to maintain EV charging infrastructure. Regular storms and flooding, salt air that is corrosive to metal components, and

⁵ The International Energy Agency. *Trends and Developments in Electric Vehicle Markets*. <https://www.iea.org/reports/global-ev-outlook-2021/trends-and-developments-in-electric-vehicle-markets>

⁶ *Id.*

⁷ *Id.*

⁸ *Id.*

⁹ Plugshare. <https://www.plugshare.com/>

the threat of power outages must be considered when deciding if and where to provide EV chargers.

Nags Head is a town with limited resources and will require careful guidance on how best to plan for the future and accommodate the rise of EVs in a way that is realistic and feasible for the community. Specifically, the goal of this project is to research and provide recommendations for Nags Head on the future adoption and needs of EVs; how best to meet these future demands, including what if any charging infrastructure the town should build; possible outside sources of funding for this infrastructure; what guidance to provide to stakeholders, including property managers and planners; and a realistic timeline for Nags Head to adopt these measures.

The project team will create this action plan by researching and forecasting EV adoption; reviewing EV action plans from other communities; engaging in regular communication with the Nags Head town planners; engaging with stakeholders in the community, including property managers, small business owners, designers, and homeowners; researching additional sources of funding for the town, including the federal government and green banks; and exploring avenues for negotiation with Dominion Energy.

B. Objectives

This Master's Project will help the Town of Nags Head (and possibly other Outer Banks communities) prepare for the transition to EVs and begin planning development of the associated charging infrastructure. Two broad questions motivate this analysis: With the numbers and use of EVs increasing, is there sufficient charging and other supporting infrastructure in the community to accommodate this increase as well as town, resident, business, and visitor needs? What steps can the town take to improve any deficient or less than adequate conditions?

The deliverable for this project will be a written Electric Vehicle Action Plan for the Town of Nags Head documenting the following items related to the development and support of EV charging infrastructure:

1. Establish the baseline, existing conditions of existing EV infrastructure within the town of Nags Head.
2. Understand Nags Head stakeholder needs and objectives regarding developing EV infrastructure.
3. Research best practices gleaned from other US cities.
4. Obtain stakeholder reactions to the first three items listed above.

5. Analyze information obtained from other US cities and stakeholder input. Assess immediate 1-2 year (near-term) preparation for EV infrastructure. Provide 5-10 year timeframe simulating future EV demand so EV charging can meet projected demand.
6. Provide our client with recommendations for EV infrastructure and also address resiliency, municipal/utilities/federal funding sources, how to navigate policy opportunities and hurdles, and also relay recommendations to other stakeholders.

C. Methods and Sources of Support

To answer our research questions, we divided the project in 4 phases. Phases 1 to 3 will focus on answering the first question through research and engagement with the Town of Nags Head government, and phase 4 will focus on the second question through the formulation of recommendations for the Town. This section contains a brief description of each phase and the resources needed to complete it.

Phase 1: Climate change impacts on coastal communities and EV basics

Description: Phase 1 involves doing research on climate change impacts on coastal communities, general EV trends, and a detailed summary of the basics of electric vehicles and electric vehicle infrastructure. The objective of this phase is to become familiar with coastal cities climate challenges and to levelize our understanding of EVs and EV trends. This way, it will be simpler to understand the Town of Nags Heads challenges and opportunities once we start the core research portion of the project in phase 2. This section will also include an overview of the Town of Nags Head local community, including geography, population (residential and tourists), and the types of businesses they have.

Resources: Research utilizing Duke University Library' resources, revision of electric vehicles actions plans from other coastal cities or towns, peer-reviewed papers on EVs infrastructure and climate change impacts in coastal communities with a focus on the mid-Atlantic region, and press publications on EV trends.

Phase 2: Analysis of the Town of Nags Head

Phase 2 is the core research phase of the project and consists of focused research on the Town of Nags Head EV's landscape. The analysis is comprised of four sections.

Description section 1: The first section includes researching existing conditions for the development and implementation of an electric vehicle action plan in the Town focusing on existing infrastructure, existing policies, and existing laws regarding EVs, and a revision of the Town's code.

Resources for section 1: Individual research and general questions to the client regarding resources and materials that can contribute to a comprehensive baseline. Use of the information provided in recent memorandums from the Planning and Development Office to the Planning Board of the Town of Nags Heads regarding existing conditions, policies, and laws. Revision of the Assembly meetings regarding EVs.

Description section 2: The second section is focused on the identification of stakeholders in the Town of Nags Heads, a description of their opinions and needs regarding EVs and the potential role they will play when/if the EV Action Plan is implemented.

Resources for section 2: Individual research and general questions to the client regarding information about stakeholders. Request contact information of stakeholders if needed.

Description section 3: The third section is focused on the opportunities and constraints that the Town of Nags Heads faces regarding EVs infrastructure and involves understanding the role of the electric utility that serves the town in the potential implementation of the EV Action Plan. It also involves a detailed summary and understanding of the physical environment challenges of the region for EV infrastructure, including natural disasters and conditions generated by the corrosive salt spray.

Resources for section 3: Individual research and general questions to the client regarding resources and materials that can contribute to an integral understanding of the challenges and constraints. Visit the Town of Nags Heads once phases 1 and section 1 to 3 of phase 2 have been

completed to close potential information gaps and familiarize the team with potential locations for charging stations and general local dynamics.

Description section 4: The fourth section includes research on sources of financial support for the implementation of the EV Action Plan, and resources to guide EV infrastructure siting and permitting. This section will describe in detail the different actors and mechanisms of funding that the town can seek, including but not limited to utilities, the federal government, Congress bills that support EV development, and green banks. It will also provide with resources that the town can seek when/if they are ready to implement the Action Plan.

Resources for section 4: Individual research and general questions to the client regarding sources of funding or mechanisms that they have previously used to support other initiatives. Resources/guides that other towns and cities have used to guide the implementation of their EV Action Plans.

Phase 3: Simulation of EV trends in the Town of Nags Head

Description: we will research and use broad EV trends and EV expectations to assess the Town's immediate planning needs (within 1-2 years), and project EV trends for the next 5 and 10 years to accommodate EV infrastructure recommendations. This will include a discussion of projected EV trends, a discussion of projected trends in batteries, including battery performance and capacity, and a discussion of projected trends in chargers, including power ratings. These factors affect charging demand and infrastructure needs. The research will be based on the information found in previous phases and potential new information regarding population projections for the Town and charging demand by season. The simulation will also show the costs associated with the projected EV trends.

Resources: Individual research on broader EV trends, battery trends, charger trends, and population projections for the Town of Nags Head. Publicly available data on EV trends, and comparison with other EV trend projections, and general questions to the client to ensure accuracy of assumptions. Internal discussions.

Phase 4: Recommendations for the Town of Nags Head and Conclusions

Description: This phase is comprised of multiple sections that will address the differences and similarities of the Town of Nags Head's existing conditions with exemplary towns that have the best practices for EV infrastructure, implementation, and development. With this, we aim to provide a clear route for the local government to change or advance the existing conditions of the Town of Nags Heads towards a favorable scenario for EVs. This section will also include general guidance for property managers for the installation and management of EV infrastructure, and address how similar communities have faced the challenges of an abrasive environment because of the town's proximity to the coast. We will recommend two potential sources of financial support and funding for the EV Plan. Finally, we will conclude with a discussion on how this EV Action Plan can provide a useful template for other communities in the Southeast and how the Town of Nags Head can push decisionmakers to incentivize EV charging.

Resources: individual research and team discussions.

D. Expected Results and Format of Report

The expected result from the project is a written Electric Vehicle Action Plan for the Town of Nags Head. The Action Plan will encompass a summary of the role of electric vehicles (EVs) in greater climate change mitigation efforts and will level down to the specifics of electric vehicles. It will include an analysis of existing conditions for electric vehicles, stakeholder needs, opportunities and constraints for EVs in Nags Head, sources of funding for the Plan, and the evaluation of two scenarios of electric vehicle demand projections and costs. The Plan will conclude with a set of recommendations that can lead the Town of Nags Head into an appropriate path to advance EV's infrastructure. An outline of the Action's Plan content can be found at the end of this section.

The specific audience of the Plan is the Town of Nags Head's Planning Board and the Planning & Development Department. We aim to produce an Action Plan that is accessible for experts and nonexperts in electric vehicles and electric vehicle infrastructure. Thus, stakeholders and general inhabitants and visitors from the town can read the plan and get a good understanding of what electric vehicles are, their role in larger climate change mitigation efforts, and more specifically their importance for the Town of Nags Head.

Project Outline

Introduction

- Brief climate change overview
- Climate change effects on coastal communities
 - Climate impacts that affect Nags Head: sea level rise, water table elevation, intense rainfall.
- Overview of the Town of Nags Heads
 - Geography
 - Population (residents and tourists)
 - Types of businesses
- EVs and their role in emissions' reduction.
- Facts about EVs – EV use on the rise, Nags Head relies on visitors, adapt to current and future EV needs.
 - Potentially consider the case for municipal fleet electrification or potential municipal vehicle charging needs, if any.
- General background on EV trends.
 - How vehicle manufacturers are pivoting to EVs and the place of transportation electrification in broader GHG mitigation goals.
- Why should the Nags Head Planning Board and local stakeholders care about EVs and meeting anticipated EV charging demand?

Basics of EVs and EV landscape geared toward local needs (this section can be useful for stakeholders that are unfamiliar with EV's)

- Definition of key terms
- What are electric vehicles?
 - Types of electric vehicles
 - Plug-in hybrids
 - 100% electric vehicles
 - Light-duty EVs
 - Freight EVs and other heavy-duty vehicles
- What is electric vehicle infrastructure?
 - Types of chargers (for light EVs and heavy-duty EVs)
 - EV charger siting
 - EV charger installation
 - Interconnection needs
 - Possible grid impacts
 - Common locations for chargers

- Who develops and operates public electric vehicle charging stations?
- EV market overview

Analysis

- Existing Conditions
 - Infrastructure (existing chargers, locations, capacity to meet demand)
 - Policies
 - Laws/Code
- Stakeholders Needs and Objectives
 - List and description of stakeholders provided by Nags Head government (second-home owners and many tourists are relatively wealthy and EV infrastructure may be a draw)
 - Town of Nags Head. Interests: municipal fleet electrification, development of public charging stations, regulation of private charging infrastructure.
 - Local businesses. Interests: customer access to public charging, development of own chargers.
 - Property owners.
 - Rental management companies. Interests: development of private infrastructure.
 - Local tourism bureau. Interests: charging access as a means of attracting tourists.
 - Dominion Energy. Interests: support for charging infrastructure, grid impacts of local EV charging.
- Opportunities and Constraints for EV's in Nags Head
 - Utility research: Dominion Energy supplies electricity but is less engaged than Duke and lacks the control Hatteras, which has its own electric co-op. Compare how other utilities view EV support and their practices and incentives.
 - Physical environment: Nags Head is in a harsh physical environment, with corrosive salt spray and flooding a challenge to electric infrastructure.
- Sources of support for EVs and financial sources
 - Utilities
 - Federal government – department of energy?
 - Review infrastructure Bill and other climate legislation and what that might mean in terms of funding for Nags Head.
 - Green banks
- Guides for EV charging infrastructure (infrastructure siting and permitting)
- Scenarios for EV growth – immediate 1-2 years, 5 years, and 10 years
 - Discussion of projected trends in vehicles
 - Discussion of projected trends in batteries (vehicle battery performance, capacity)

- Discussion of projected trends in chargers (power ratings) changes in batteries and chargers affect charging demand and infrastructure needs.
- Extrapolate from broader trends and expectations to answer:
 - Forecast EV growth and what that means for residents and tourists
 - What level of charging demand might Nags Head see?
 - How might this vary by season?
 - What would different levels of charging demand mean for the local grid?
 - Potentially include population projections.
 - Potentially include a chart of stakeholders, their expected EV demand, and interest in EV infrastructure.
 - Costs per scenario

Recommendations for Nags Head

- Best practices for other coastal/similar communities
 - Support for public charging
 - Potential development of municipal fleet electrification
 - Support and regulation of private charging infrastructure development
- Comparison of best practices in other cities with Nags Head.
 - Code review. How does the updated Nags Head EV residential and commercial code compare to best practices?
 - Information from the American Planning Association.
- Guidance for property managers
 - Why providing EV charges at rental properties is important
 - Study of increased rentals for properties that provide charging
 - Resources for affordable EV charger installation
 - Work with Outer Banks visitor Bureau on updating EV information (wayfinding and signage).
- Address resiliency
 - How do other coastal chargers deal with rust and salt?
 - Covered/indoor charging area?
 - High point geographically on town property? Parking lot on hill?
 - Power outages
 - How vulnerable would EV infrastructure be to a storm? How could the town maintain service? How should EV proponents tailor messaging to those who raise this topic as a concern or objection? Potential work with DOE tech assistance on energy resilience.
- Sources of support/funding
 - Recommend the two best sources of funding to support the plan

Final remarks, conclusion

- Discuss how this EV Action Plan could provide a useful template for other Southeast communities (focus to beach towns that share a similar economy and physical environment)
- Discuss in what ways might Nags Head push Dominion or the NC state government to incentivize EV charging.

E. Faculty

Timothy Johnson will be the advisor for this project, as well as the primary advisor responsible for evaluating the project. Dr. Johnson is the Associate Dean of Professional Programs and the Chair of the Energy & Environment Program at the Nicholas School.

Part II: Project Timeline

See the Excel Document attached titled “EVProjectTimeline” for the Project Timeline.

Part III: Team Charter

Team Objectives

1. Critically consider the Town of Nags Head’s electric vehicle needs and make a cohesive action plan as required of our master project to fulfill this objective.
2. Cultivate a flexible, efficient, and effective team.

Communication Plan: Meetings

- Day/Time
 - Weekly meeting on Mondays, 6:00pm-7:00pm via Zoom
- Cancellations
 - We expect a 24 hour notice regarding changes to in-person participation, if possible. If a team member has a time conflict, we will meet as planned and the additional person will call in and/or follow up with others after the conflict
 - If 2/3 team members are unavailable, we will reschedule another virtual meeting accordingly.
- Emergencies
 - We ask that the team member with an emergency alerts the team with as much advance notice as possible. We will work together to spread tasks to other team members and reconvene about next steps.

- Late Policy/Accountability for Internal Deadlines
 - There will be a 10 minute grace period until we begin the meeting as usual
 - If a team member is late 3 times, we will address tardiness as a group
 - If time infractions continue, we will address concerns with our MP Advisor

Internal Communication

- Primary method of communication is via WhatsApp
 - Team members will respond within max of 24 hours of receiving a message. We agree to shorten response time prior to deliverables.
- Back up responses (if a team member has not responded within 24 hours)
 - Text message, titling messages with “URGENT”
- Secondary method of communication is email
 - Emails for heavy content and ongoing updates
 - Outlook for emails, Duke Box for content
 - Use Duke Box to back up and save final versions of documents

External Communication

- Client liaison: Narissa
 - Send client emails and cc the entire team and MP Advisor. Respond to all client emails within 24 hours of receiving one.
 - The client liaison will forward, re-copy, and/or update team members on client correspondence.
 - Take minutes for meetings with client.
 - Make meeting agendas.
- MP Advisor liaison: Camila
 - Respond to emails from the MP Advisor within 24 hours. Briefly discuss the correspondence via WhatsApp.
 - Take minutes for meetings with client.
 - Make meeting agendas.

Team Norms

- Each team member will be as present as possible during team meetings and step out if they need to answer a call, address an emergency, etc.
- Be prepared for each meeting. Meetings will end at the time originally scheduled.
- If an individual anticipates not being prepared for a meeting, they should notify the group as soon as possible, with an *idealistic* 24 hour notice
- Employ active listening when appropriate
 - Listen, summarize, and repeat back what was said versus listening to only respond

- Assume that team members have good intentions in their feedback and be open to constructive criticism. Be assertive and honest about feedback
- Be open to editing feedback/try to not take feedback personally
- Step forward and step back
 - Make space for each person, ask the group “are there any additional thoughts?” as opposed to pointed questions to individual group members
- Managing team conflicts
 - To address team conflicts, members will approach each other directly in a 1-1 setting as a first course of action versus openly “calling out” in front of other team members
 - Use “I” statements and avoid accusatory language
 - Lean on MP Advisor as a second/third party
- After receiving feedback on deliverables, the team will discuss it in the next meeting.
- Be open and realistic about individual workloads. Team members will hold each other accountable to taking on a reasonable amount of work.

Roles and Responsibilities

1) Ongoing Roles

- a. Client Liaison: **Narissa**
 - i. Generate agendas for meetings, email client on behalf of MP team, and take minutes during client meetings.
- b. MP Advisor liaison: **Camila**
 - i. Generate agendas for meetings, email advisor on behalf of MP team, and take minutes during advisor meetings.
- c. Meetings facilitator: **Will**
 - i. Ensure that we stay on track for both MP Advisor and client meeting agendas and that the MP Project Team’s questions are answered.
- d. Minutes taker for internal group meetings/generate group on-going questions: **All**
- e. Rotating Editors for each deliverable: **All**
 - i. Different team members will edit during different rounds. These will rotate so the deliverable is reviewed at least 3 times.
 - 1. First round:** Content
 - 2. Second round:** Structure, Voice, and Flow
 - 3. Third Round:** Grammar and Punctuation
- f. Data Management: **All**

Information Management

- A. All documents, meeting notes, and deliverables will be stored in Duke Box.
- B. Final deliverable documents will be backed up using Box.