

**Communication and Public Engagement Strategies:
Greater Northfield Sustainability Collaborative**

Caroline Hull and Sophie Homans

ENTS 310: Environmental Law and Policy

Spring 2018

I. Executive Summary

This paper addresses the role of communication and public engagement strategies in implementing Northfield's Climate Action Plan (CAP). We argue that communication must be inclusive and widespread while simultaneously targeting specific stakeholder groups. Then, Northfield ought to design and implement initiatives that engage these same stakeholders in ways that stress the inclusive and purposeful nature of CAP. We recommend that Northfield develop five major engagement and communication strategies with a particular focus on the first two: incorporate equity, identify stakeholders, implement meetings and public hearings, release announcements and updates, and publish drafts with opportunities for public comment. While there are some challenges with our communication and engagement strategies, the benefits for the city, its residents and the environment far exceed any negatives. By implementing these strategies, Northfield will bolster trust throughout the community and improve its decision-making processes.

II. Introduction

While scientific advancements and updates are crucial to combating climate change, without public engagement and communication, Northfield will struggle to see real action. In developing its CAP, the city must engage and communicate with its residents in order to involve as many community members as possible, as well as to spread awareness. Inclusivity and specificity in engagement and communication strategies are important in making sure all stakeholder voices are heard and equity is adequately addressed. Northfield residents should be active participants in the development of the city's CAP because without their involvement, the plan will lack the thoughtfulness and credibility necessary to effectively combat climate change.

The following two strategies are expected to have the most significant impact on the development of Northfield's CAP and subsequently on addressing climate change: identify stakeholders in the community and incorporate equity into the development and planning process of CAP. While the ultimate goal of these public engagement and communication strategies is to address climate change, our recommendations offer even more social benefits. The economic and environmental benefits of our strategies are not a direct result of the communication and public engagement recommendations that we propose. Rather, these benefits will become apparent when the plan is implemented and there is widespread involvement and commitment to the city's CAP. The two significant recommendations stated above should be operationalized as separate strategies and as well as components of each communication and public engagement recommendation proposed in this paper. In other words, identifying stakeholders and addressing equity are addressed continuously throughout the paper because they are relevant to any and all actions Northfield takes throughout the planning process. These two strategies, discussed in further detail later, will help the city reach its largest audience and produce an inclusive and effective CAP. Furthermore, all of the strategies proposed in this paper are intended to act jointly instead of individually. In this paper, we frequently mention the effectiveness of the proposed strategies. While it is difficult to quantitatively measure effectiveness, we argue that strategies are effective when they are frequently suggested from other cities and when they thoroughly involve and engage residents. In other words, success and effectiveness are dependent on participation.

To communicate and engage with the Northfield community, we propose five major policy choices. As previously stated, the two strategies with the most significant impact are identifying stakeholders and incorporating equity. The remaining three strategies include:

holding meetings and public hearings; sending out announcements and updates throughout the development of the CAP and the decision-making processes; and publicizing multiple drafts of the CAP with surveys and events to facilitate feedback throughout the process. In the coming pages, we will further explore all five of these policy choices.

This paper covers both communication and public engagement, however, because the two are so closely intertwined, the policy suggestions are not differentiated. Instead, they incorporate aspects of both. In order to achieve the most impactful public engagement, the communication must be clear, precise and effective. Together, the five strategies described in this paper are all intended to create the most productive communication and public engagement. This occurs through inclusion of the largest, most diverse group of Northfield's population while also meeting specific needs for individualized stakeholder groups.

The goal of this paper is to provide reasonable communication and public engagement strategies that Northfield can use in creating both an inclusive and effective CAP. We only discuss strategies that can be used during the process and development of CAP and do not provide recommendations for implementation. To begin, we explain the effects and the importance of using communication and public engagement strategies. We will analyze the necessary steps of developing the CAP, especially with regards to equity and diversity of participation. Additionally, we highlight the policies that Northfield has already implemented, and the future plans that it has made. Next, we discuss the strategies recommended for communication and public engagement specifically addressing actions that will be most effective and inclusive. The strategies proposed throughout the paper are largely drawn from other municipalities across the United States. Many municipalities have effectively implemented CAPs that can act as examples for Northfield, and any other jurisdiction that wishes to create a CAP.

To begin, the first recommendation highlights incorporating equity into all of the strategies used in developing Northfield's CAP. Then, we emphasize the importance of identifying stakeholders in the Northfield community. We offer strategies that help in the process of identifying stakeholders, but we do not propose specific groups. Next, we recommend holding meetings and public hearings; we delve into the different types, formalities, and audiences. Then, we suggest issuing announcements and updates on the CAP's development and the strategies that can be used to achieve inclusivity and equity with the chosen outreach. Finally, we recommend publishing drafts of the CAP with surveys and events to encourage feedback; again, this will be related back to equitable action. To conclude, we discuss the challenges with the design and implementation of our communication and public engagement strategies. In general, our paper covers the topics that we believe are most applicable to Northfield in the process of developing an inclusive and effective CAP. We do not claim that our suggestions are the only viable options, rather they offer an important starting point for the city.

III. Importance of Climate Change Adaptation and Mitigation Actions

A. Brief Summary of Climate Change/Greenhouse Gas Emissions

Climate change poses an impending threat to our communities, the nation, and the world.

Associated with climate change is global warming, rising sea levels, and more frequent/severe extreme weather. Most communities have already experienced impacts caused by climate change, but eventually all people will be exposed to its effects, and the effects will become more extreme. Minnesota has already experienced weather resulting from climate change. For example, since 2000, Minnesota has suffered five mega rain storms and four between 1970 and 1990. A mega rain storm is defined as "6 inches of rain over at least 1,000 square miles, with a

core of 8 inches” and is indicative of newly changing weather patterns.¹ These storms can lead to intense flooding, something that greatly threatens Northfield. Greatly contributing to the growing threat of climate change are greenhouse gas (GHG) emissions. These gases alter Earth’s balance between solar radiation and heat that is released back into the atmosphere. Common sources of GHG emissions come from: agriculture, livestock, natural gas, refrigerants, and cement production, to just name a few. The United States greatly contributes to the greenhouse effect - comprising 14% of total GHG emissions in 2015 with only 5% of the world’s population. Climate change poses a real threat to Northfield, but by developing a CAP, the city is making its best effort to mitigate and adapt to the changes.

B. Importance of Public Engagement and Communication

While climate change is often understood on a global level, much of the work to combat it must occur within small communities. Local sustainability efforts have proven to be effective in communities across the world and especially in Minnesota (such as St. Louis Park and Minnesota State University Mankato).² In developing its CAP, Northfield must engage and communicate with its residents so that the plan reflects the interests of all community members. Allowing for local participation increases commitment to combating climate change, builds trust between residents and leads to better decision making.³ However, participation is only possible if the city effectively communicates with all of its residents to spur engagement. City leaders must

¹ Paul Douglas. "State Climate Office: 2016 First Year With 2 Minnesota ‘Mega-Rain’ Events." Star Tribune. September 27, 2016. Accessed May 29, 2018. <http://www.startribune.com/state-climate-office-2016-first-year-with-2-minnesota-mega-rain-events/395046591/>.

² "St. Louis Park Climate Action Plan: 2040 Setting a Course toward Carbon Neutrality." St. Louis Park. February 2018. <https://www.stlouispark.org/home/showdocument?id=8214>; "Minnesota State University Mankato Climate Action Plan." Minnesota State University Mankato. August 5, 2015. <https://www.mnsu.edu/greencampus/climateactionplan/MinnesotaStateUniversityMankatoClimateActionPlanv3.pdf>.

³ Cathleen Kelly, Cecilia Martinez, and Walker Hathaway-Williams. "A Framework for Local Action on Climate Change." Center for American Progress. September 28, 2017. <https://www.americanprogress.org/issues/green/reports/2017/09/28/439712/framework-local-action-climate-change/>.

aim to “provide stimulation and support” instead of an overbearing top down approach.⁴ Local efforts work best when community leaders identify stakeholders and develop specific yet inclusive communication and engagement strategies that simultaneously enrich communities.

To begin, we define public engagement and communication according to CAPs from two California cities. While from specific plans, similar definitions are applied to CAPs across the country. Edmonton, California articulates that public engagement “creates opportunities for people to contribute to decision making by City Council and Administration about the City’s policies, programs, projects, and services, and communicates how public input is collected and used.”⁵ Then, Novato, California defines communication as “improving public access to timely, accurate, and helpful information... providing a variety of easy, accessible, and meaningful ways to engage... [and] promoting transparency in the City’s decision-making process.”⁶ We operationalize these two definitions throughout our paper and use them to create effective engagement and communication strategies for the city of Northfield.

We proceed with the general importance of engagement. Residents will feel that they have a stake in the community’s behavior and practices if they are allowed to be active participants in combating climate change. According to a policy paper by the UK based organization, NESTA (National Endowment for Science, Technology and the Arts), “community-led responses can help local authorities deliver cuts in CO2 emissions by generating a local sense of collective purpose that draws people into the debate and encourages a more open

⁴ Jonathan Oosterman. 2016. “Making Climate Action Meaningful: Communication Practices in the New Zealand Climate Movement.” *New Zealand Sociology*; *Hamilton* 31 (5): 131–57.

⁵ “The Council Initiative on Public Engagement New Public Engagement Practice and Implementation Roadmap Final Report.” City of Edmonton. April 2017.
https://www.edmonton.ca/programs_services/documents/NewPublicEngagementPracticeandImplementationRoadmapFinalReport.pdf.

⁶ “Communications and Community Engagement Plan 2015-2016.” City of Novato. 2015-2016.
<https://novato.org/home/showdocument?id=13163>.

approach to government messages to reduce emissions.”⁷ Civic engagement plays a crucial role in galvanizing residents towards collective action because it brings individuals together - whether that be through events, clean-ups, lectures or a common set of beliefs about the value of our environment.

Next, we consider the importance of engagement with regards to stakeholders. According to Mark Reed, a professor of Natural and Environmental Sciences at Newcastle University, “stakeholder participation needs to be underpinned by a philosophy that emphasizes empowerment, equity, trust and learning.”⁸ Being an inclusive and forward-thinking community, Northfield should have no problem incorporating a variety of stakeholders into the process of developing its communication and public engagement strategies nor deploying these projects and campaigns to all members of the community. Additionally, by encouraging stakeholder participation, environmental decisions will likely be perceived as more “holistic and fair, [as they] account for a diversity of values and needs and recognize the complexity of human-environmental interactions.”⁹

Without communication, Northfield’s engagement goals will likely be unmet. It is clear that many in the community believe in the existence of climate change, but this does not mean that motivating residents to become more involved is an easy feat. Climate change is a challenging and daunting societal issue, but effective communication can help to “translate understanding and concern into action.”¹⁰ Without relevant communication strategies, many plans may never achieve fruition because they will lack community support and understanding.

⁷ “Policy Paper: Working with Communities to Tackle Climate Change.” 2010. NESTA.

https://www.nesta.org.uk/sites/default/files/working_with_communities_to_tackle_climate_change.pdf.

⁸ Mark S. Reed. 2008. “Stakeholder Participation for Environmental Management: A Literature Review.” *Biological Conservation* 141 (10): 2417–31. <https://doi.org/10.1016/j.biocon.2008.07.014>.

⁹ Ibid.

¹⁰ Jonathan Oosterman.

With effective communication, Northfield will foster transparent and two-way relationships with its residents. Communicating information about the development of its CAP will keep residents engaged in the process and lead to more comprehensive plans ready to tackle climate change. If residents are unaware of Northfield's CAP and the processes associated with its development, they will lack the tools to be active participants in its creation. Communication from city government to a diverse group of stakeholders as well as to the general public is crucial to helping Northfield adapt to and mitigate the effects of climate change.

C. Co-benefits of Communication and Public Engagement

In addition to the environmental benefits of effective communication and public engagement in developing Northfield's CAP, the city can also expect positive externalities. By bringing together a diverse group of residents, Northfield will help to strengthen community ties and encourage collective action for the sake of one's neighbors. First, reaching out to and engaging with a variety of stakeholders with an attention to equity will enrich the community and lead to social benefits.¹¹ Then, trust amongst members of the community and towards city leadership will be strengthened.¹² Lastly, Northfield's CAP will be the result of better-decision making because diverse perspectives helped to shaped its development.¹³ While we mainly focus on the CAP's social co-benefits, it is important to acknowledge the positive economic externalities. However, these specific benefits are further discussed in our colleagues' papers.

One way to address residents of Northfield who may be disinclined to participate in development and/or implementation of the CAP is to use "no-regret strategies."¹⁴ These are

¹¹ John Gardner, et al. "A Framework for Stakeholder Engagement on Climate Adaptation." CSIRO. Climate Adaptation National Research. 2009. https://research.csiro.au/climate/wp-content/uploads/sites/54/2016/03/3_CAF_WorkingPaper03_pdf-Standard.pdf.

¹² Ibid.

¹³ John Gardner, et al.

¹⁴ Alejandro E. Camacho. "Adapting Governance to Climate Change: Managing Uncertainty through a Learning Infrastructure." *Emory Law Journal* 59, no. 1 (2009): 1-77.

strategies that “are directed at providing net benefits irrespective of the effects of climate change.”¹⁵ Because of this, even individuals who don’t want to address climate change adaptation or mitigation should be incentivized to participate because the other benefits, be they economic or otherwise, are motivation enough.

IV. Northfield’s Past, Present, and Future Actions

A. Summary of Previous Actions

Since the 1990s, Northfield has been involved in addressing climate change. However, its efforts were not always realized due to a lack of participation and city council support. In the 1990’s, a climate action plan was proposed to the city council and again in 2007, but neither plan passed. Fortunately, just this year, the Energy Working Group received a 1000 signature petition helping to pass a policy that allowed the city government to finally create a climate action plan.

Between the 1990s and present day, Northfield residents have been active in addressing climate change. For example, nine years ago, a group started the Earth Day celebration - a tradition that continues to grow today (see Appendix 1). The event is now a three-day affair with speakers, food trucks, skill building, tree planting, bike maintenance, candle making, and a variety of other activities to promote sustainable living and encourage connections within the community. According to Mary Jo Cristofaro, a resident of Northfield and the leader of the city’s Earth Day celebration, Earth Day is the biggest event for raising awareness for climate change that Northfield has to offer. She considers it the key to public engagement and communication.¹⁶

Northfield uses a website, the “Greater Northfield Sustainability Collaborative,” to publish information regarding its efforts. On the site, many documents regarding public engagement strategies can be located along with examples and case studies of projects and plans

¹⁵ Alejandro E. Camacho

¹⁶ Mary Jo Cristofaro. 2018. Interview for Environmental Law and Policy Group Project.

from other similar cities across the country. Also, the city has used surveys to help it and the Energy Working Group better understand public opinion.¹⁷ Lastly, Northfield has worked with Carleton and St. Olaf, in addition to other organizations, to facilitate conversations about climate change. Through meetings and groups, Northfield has started to incorporate its residents into its plans for greater sustainability and conscious living.

Northfield furthered its steps towards sustainability and GHG emission reduction in 2011 when it joined the GreenStep Cities Program. As part of the implementation of the GreenStep Cities program, numerous actions have been taken. Some of the most significant actions, as determined by a three star scale created through the program, include: replacing all of the city's traffic signal lights with LEDs; adopting a Complete Streets Policy which "design[s] surface transportation corridors that balance the needs of all users;" addressing street trees and storm water; phasing in non-motorized transportation for city police and staff; and adopting construction and demolition ordinances for permits which require recycling and reuse.¹⁸ However, as explained by these actions, it seems that Northfield has yet to address the issue of climate communications and community outreach.

B. Summary of Current and Future Actions

In order to address the state of Northfield, regarding sustainability and climate change, the city worked on an assessment of the environment as part of a strategic planning process for 2018-2020. Beginning in the spring of 2017, the city conducted a community forum, a survey, and a joint meeting among the City Council, the Economic Development Authority (EDA), and the Planning Commission. The goals they outlined fell under two categories: development and implementation.

¹⁷ Mary Jo Cristofaro.

¹⁸ "City of Northfield." 2017. Minnesota GreenStep Cities. 2017.
https://greenstep.pca.state.mn.us/cityInfo.cfm?ctu_code=2395265&open=1.

While not all of the 2018-2020 Strategic Plan focuses on sustainability and climate change, a portion of it does.¹⁹ A Climate Action Plan was written in order to address flooding, food/agricultural support, renewable energy, walkability, city facility energy efficiency, and sustainable development.

As noted in both the community forum and the survey, there is a need for improved communication from the city. So, as part of the 2018-2020 Strategic Action Plan, in the section dealing with climate change impacts, one major focus is creating a climate communications and outreach program. Moving forward, in the spring of 2018, the Climate Action Plan Advisory Board members will be approved by the Northfield City Council.²⁰ Then, over the course of the year and through 2019, working groups, such as the Environmental Quality Commission (EQC) or the Climate Action Planning Advisory Board (CAPAB), will draft the CAP that will be released for public input. The plan is expected to be implemented by 2020 with regular updates throughout.²¹

V. Actions Yielding Significant Impact

A. Incorporating Equity

In nearly every city that has developed a CAP, communication and civic engagement have played a significant role in the development of the document. Municipalities recommend identifying stakeholders and creating programs that meet the needs of their residents. Cities also recognize the need for equity in the development process, arguing that a truly successful CAP must reflect typically marginalized groups, such as Spanish-speaking, low-income, and disabled

¹⁹ “City of Northfield Minnesota: FY 2018-2020 Strategic Plan.” August 2017.

<https://www.ci.northfield.mn.us/DocumentCenter/View/5833/Northfield-Strategic-Plan-2018---2020>

²⁰ Ibid.

²¹ “Greater Northfield Sustainability Collaborative.” n.d. Greater Northfield Sustainability Collaborative. Accessed April 25, 2018. <http://northfieldsustainability.org/>.

populations.²² While we recognize that there are other marginalized groups in Northfield, such as the Somali and Hmong populations, we do not include them in this paper because they do not represent as large of a group as does the Spanish-speaking population.²³ However, once Northfield addresses the latter, it will be able to use the same plan to develop strategies for other non-English speaking groups.

We first define equity according to the Oxford English dictionary: “the quality of being fair and impartial.”²⁴ However, we operationalize the word using Portland, Oregon’s Climate Action through Equity proposal. Portland describes “climate equity [as] ensuring the just distribution of the benefits of climate protection efforts and alleviat[ing] unequal burdens created by climate change. This requires intentional policies and projects that simultaneously address the effects of and the systems that perpetuate both climate change and inequity.”²⁵ In order to equitably address climate change, Northfield must reach-out to marginalized groups during the development of its CAP, not just after the fact. By doing so, the needs of all Northfield residents will be better understood and addressed. To measure equity, we again look to Portland, Oregon who has identified nine equity considerations to be addressed in each CAP related action. While these considerations are more applicable to actions taken after the creation of a CAP, they can also be applied to the developmental stages. When thinking of equitable communication and engagement, we recommend that Northfield consider the following: disproportionate impacts, shared benefits, accessibility engagement, capacity building, alignment and partnership,

²² "The Integration of Equity in the Portland/Multnomah County 2015 Climate Action Plan." Portland Oregon. July 12, 2016. <https://www.portlandoregon.gov/bps/article/583501>.

²³ "Census Reporter Profile Page for Northfield, MN." Census Reporter. 2016. <https://censusreporter.org/profiles/16000US2746924-northfield-mn/>.

²⁴ "Definition of Equity." English Oxford Dictionaries. <https://en.oxforddictionaries.com/definition/equity>.

²⁵ "The Integration of Equity in the Climate Action Plan/Multnomah County 2015 Climate Action Plan."

relationship building, economic opportunity and staff diversity, and accountability (see Appendix 4).²⁶

Additionally, while many conceive climate change as a concern of affluent communities and not marginalized groups, recent scholarship debunks this belief. According to *Climate Change and Communities of Color*, low-income people and people of color are underrepresented in environmental organizations, but they are particularly concerned with environmental issues.²⁷ For example, “research has shown that people of color support environmental protection at a higher rate than whites. Sixty-eight percent of minority voters feel that climate change is an issue we need to be worried about right now, not something we can put off into the future.”²⁸

B. Identifying Stakeholders

One of the most crucial steps in developing a CAP is identifying important stakeholders, a topic that has been touched on several times throughout this paper. The stakeholders that Northfield identifies should cover a diverse range and “cross-section” of people in the community.²⁹ These key interest groups can be identified by CAPAB before the CAP is developed. The CAPAB can then work with these interest groups, engaging with them on their specific interest area throughout the development of the plan. When identifying stakeholders in the community, there are two important issues to understand. First, the local government will play a key role in developing and implementing the CAP, and therefore, they are likely to be a major stakeholder. The New York Department of Environmental Conservation recommends “including elected and appointed officials and municipal staff who may be involved with implementing

²⁶ “The Integration of Equity in the Climate Action Plan/Multnomah County 2015 Climate Action Plan.”

²⁷ Ibid.

²⁸ Ibid.

²⁹ “City of Milwaukie Climate Action Plan: Communications and Engagement Plan.” Milwaukie Oregon. February 7, 2018.

https://www.milwaukieoregon.gov/sites/default/files/fileattachments/sustainability/page/85191/2018_0207_milwaukie_cap_publicengagementplan_finaldraft.pdf.

recommendations, as well as interested groups and individual citizens.”³⁰ Second, understanding the demographics of the community is crucial. The goal of a CAP is to be both inclusive and effective; to achieve this, leadership must actively involve the largest, most diverse group of community members. However, it is important to recognize that involving all residents is nearly impossible. The following are examples of potentially important demographic groups in Northfield: the elderly, the college student populations (Carleton and St. Olaf), younger students (such as middle and high school), and the Spanish speaking population (which makes up 12% of Northfield). These stakeholder groups, once identified, should play an important role in creating either individual or sector-based policies that define specific goals tied to emission reduction and climate change adaptation.³¹

Using a suggestion from San Diego, California, we recommend that once stakeholders are identified, an initial contact list should be compiled. This mailing list can be used as a way to notify interested parties of events and updates regarding the development of the plan. As the plan is developed and the community becomes more aware, we predict that additional names will be added to the contact list (like an email listserv) through word-of-mouth communication and increasing participation.³² These strategies work to be inclusive, giving everyone who wants, an equal opportunity to participate in community events and to receive updates on the development of the CAP.

Using stakeholders as an initial starting point for communication can lead to greater engagement later on in the CAP process. Each stakeholder has its “own motivations for supporting local climate action (energy savings, disaster preparedness, job creation, stewardship

³⁰ "Pledge Element 2 - Develop a Local Climate Action Plan." Department of Environmental Conservation. <https://www.dec.ny.gov/energy/67101.html>.

³¹ "Develop a Local Climate Action Plan." Department of Environmental Conservation.

³² "Public Outreach and Engagement Plan Climate Action Plan." San Diego County. March 2016. <https://www.sandiegocounty.gov/content/dam/sdc/pds/advance/cap/SDCountyCAP-PublicOutreachandEngagementPlan.pdf>.

of the land) or their own priorities about what should be in a climate action plan.”³³ Therefore, stakeholders are more likely to participate in developing and implementing their CAP, if they feel that their voices have been heard throughout the decision-making process. Stakeholders are experts in their fields, and as such they should be better at identifying the environmental changes that can be most easily and effectively made.

One of the major challenges with using stakeholders as an identifying factor is that each stakeholder group is unique and may require a different method of communication. However, if stakeholders are identified early on, specific communication strategies pertaining to each group can be thoroughly developed. Our recommendations include: sending out email notifications, holding formal and informal meetings, and sponsoring small public hearings. By identifying specific strategies to communicate with stakeholders it will be easier to understand their individualized priorities. Using these strategies, there will be more diverse participation leading to a more deeply engaged community.

The most significant externality associated with stakeholder identification is social improvement. Stakeholder identification helps to build a strong social network in the community and leads to a more comprehensive implementation process with greater participation. It does so by bringing together different sectors of the community that may not be incentivized to get involved unless specifically addressed. By acknowledging all voices in the community, Northfield’s CAP will reach a larger audience and induce collective action.

C. Meetings and Public Hearings

One effective strategy for public outreach and engagement is holding community meetings and public hearings. These events can be organized in a variety of ways in order to include as much

³³ "Climate Communication for Local Governments." Serppas. November 2011. https://serppas.org/media/1079/http___wwwicleiusaorg_action-center_engaging-your-community_iclei_climate_communication_local_governments.pdf.

of the public as possible. One effective strategy used by San Diego, California was holding meetings for different sectors of the public.³⁴ The meetings ranged from very formal to informal and all-inclusive to targeting specific stakeholders. The variety of meetings and public hearings allow for different community members to learn about the CAP and become involved in the decision-making process, as well as provide the CAPAB with input on what environmental concerns should be addressed.

One type of meeting used by San Diego is termed a “scoping meeting.”³⁵ The scoping meeting should be held early on in the CAP development process. The goal of this meeting is to allow organizations and members of the public to learn about how the CAP will be developed and how the decision-making process will proceed. This meeting is open to anyone and should be informal as to encourage substantial participation. We recommend that the meeting be focused on two-way communication. Therefore, the public can learn about the process from individuals in local government and on the planning board. In return, individuals on the planning board and in local government can hear from the public about what environmental issues they believe need to be addressed and what policies they think are important in mitigating and adapting to climate change.

Another strategy used by San Diego that is also applicable to Northfield is information booths. We recommend that Northfield set-up these booths or tables at community events, such as Jesse James Days, Earth Day, or at the farmers market during warm-weather seasons. Having informal events such as these can be very beneficial to the community because it encourages individuals to become involved who may not have otherwise been interested in participating. These booths and tables can also raise awareness about the CAP to those who might not even

³⁴ "Public Outreach and Engagement Plan Climate Action Plan." San Diego County.

³⁵ Ibid.

know it exists. Along with this, if there are email sign-up sheets at these community events, individuals can request to receive updates about the progress and development of the plan.

As previously mentioned, identifying a list of stakeholders in the community can be critical to engaging with the public and effectively communicating the development of the CAP. One way to target stakeholders is to hold stakeholder specific meetings. In these meetings, the parties should work to determine how the CAP applies to them and what CAP changes are important. We recommend that stakeholder meetings should also be held in the form of community workshops. During these workshops, the CAPAB should update the stakeholder groups on the developments that have already been made in the writing of the CAP. In return, the stakeholders can provide input throughout critical steps of the planning process.³⁶ Having involvement between the stakeholder groups and the CAPAB allows for ideal two-way communication that effectively generates more public engagement.

Finally, after a draft of the CAP is written, we recommend that it is published for the public to read (discussed in more detail later). This public outreach strategy should be accompanied by public hearings, held by the CAPAB, and surveys. The public hearing should be open to all members of the community. In order to achieve equity and engage the greatest number of people, this event should be held at a central location, and the city should provide resources such as childcare and food/refreshments. A notice for the public hearing should be put in the local newspaper, sent to the stakeholder notification mailing list, and be posted on the Northfield website and Facebook page.³⁷ Napa County, California provides an excellent example

³⁶ "Public Outreach and Engagement Plan Climate Action Plan." San Diego County.

³⁷ "Public Outreach and Engagement Plan Climate Action Plan." San Diego County.

of how a city can effectively hold a public hearing.³⁸ They held a public hearing after a CAP draft had been written and used the hearing as an opportunity to inform the public. The meeting was intended to “[provide] a baseline inventory of greenhouse gas emissions” from Napa County, as well as to explain the strategies chosen in the CAP that would reduce emissions.³⁹ The City of Whitefish, Montana also used public hearings in a similar manner.⁴⁰ They requested feedback on the CAP during its development, as well as gathered final approval of strategies from the planning committee. These hearings are very beneficial to both the development and implementation stages of a CAP.

All of these different meetings and public hearings address different sectors of the population in order to communicate and engage with the largest number of Northfield residents. Again, we recommend that the events vary in formality as well as in audience, allowing for the most effective two-way communication. Holding meetings and public hearings are socially, economically, and environmentally beneficial to the Northfield community. Socially, holding meetings and public hearings act as a platform to bring community members together and encourage collective action. These meetings build support and ties between individuals and stakeholders, and this leads to a stronger social atmosphere. By involving the largest number of individuals in the community as well, Northfield will hopefully see vast participation in the implementation process, which will lead to the deepest GHG emission reductions possible and potential economic savings.

D. Announcements and Updates

³⁸ "Notice of Public Hearing: Climate Action Plan for Unincorporated Napa County." County of Napa. <https://www.countyofnapa.org/DocumentCenter/View/333/Climate-Action-Plan-Public-Hearing-Notice-for-April-3-2012-PDF>.

³⁹ Ibid.

⁴⁰ "Climate Action Plan." City of Whitefish Montana. <http://www.cityofwhitefish.org/public-works/climate-action-plan.php>.

Important to developing a CAP is keeping the residents of the city informed and educated on the plan's progress. Using inclusive and targeted announcements to update residents about the CAP should be a priority for Northfield. While announcements have been mentioned in previous sections with regards to specific initiatives such as public comment periods for drafts and events, this section aims to highlight the role of weekly and monthly announcements/updates in keeping residents generally engaged.

Online and print sources should be employed to publicize announcements. For online sources, Northfield, like Novato, California, should consider using: online forums, social media, surveys, and the City's website.⁴¹ Specifically, social media platforms can provide many benefits to a community and assist in its communication. As a cost-free medium, social media provides residents with a platform to share ideas and learn about the city's CAP. One of the most important benefits of social media is the speed at which information can spread. Thomas Bryer, an assistant professor at the University of Central Florida, who performed a case study on social media that improves civic engagement, explains, "cities and city agencies can efficiently and cost-effectively solicit participation at events, meetings, ceremonies, and the like" (see Appendix 2).⁴² Mobilization can occur very quickly for a positive purpose.

Additionally, leaders in the community, as well as students and professors at both Carleton College and St. Olaf College have posted information and research to the "Greater Northfield Sustainability Collaborative" website. On the site, there are also listings of events and general information about sustainability in Northfield. As a medium that provides information

⁴¹ "Northfield, MN - Official Website | Official Website." 2016 TH 246 and Jefferson Parkway Intersection Study | Northfield, MN - Official Website. Accessed May 29, 2018. <https://www.ci.northfield.mn.us/>.

⁴² Thomas Bryer. 2013. "Designing Social Media Strategies for Effective Citizen Engagement: A Case Example and Model." *Wiley Periodicals*, April. <https://onlinelibrary.wiley.com/doi/pdf/10.1002/ncr.21114>.

through written postings, this page is a useful resource to members of the community.⁴³

Therefore, we recommend using the Greater Sustainability website to spread awareness.

However, its accessibility should be improved in order for it to be more effective. The city should consider having a link to this cite on its own webpage, or it should change the keywords associated with the page. At the moment, when using the phrases, “Northfield Climate Change” and “Northfield Climate Action Plan,” in a google search, the “Northfield Greater Sustainability Collaborative” website does not appear on the first page of results. We realize that this issue may be too difficult to solve, but it would improve accessibility if it were addressed. While we do not expect the website to be in Spanish as well as English, it would be helpful to include a page that contains some Spanish-language material.

Additionally, Milwaukie, Oregon recommends using a variety of informational sources to update residents on the CAP process. For example, the city suggests creating and publishing fact sheets, technical memos, and PowerPoint presentations.⁴⁴ While technical memos and PowerPoints will likely remain online, printing fact sheets on small cards or flyers throughout town should help spread greater awareness. Similarly, Northfield should consider issuing news releases and also using the Northfield newspaper as an outlet for letters to the editor or advertisements that could be submitted.⁴⁵ With print media and most media for that matter, three general principles apply: know your purpose; know your audience; be clear and concise.⁴⁶ While print media is less relevant today than in the past, it should still play a significant role in Northfield’s communication strategies. Many argue that “print media has the advantage of

⁴³ “Greater Northfield Sustainability Collaborative.”

⁴⁴ “City of Milwaukie Climate Action Plan: Communications and Engagement Plan.”

⁴⁵ “Public Outreach and Engagement Plan Climate Action Plan.” San Diego County.

⁴⁶ “Writing for Print Media.” 2018. National Institute of Agricultural Extension Management (MANAGE). <http://www.manage.gov.in/studymaterial/printmedia.pdf>.

making a longer impact on the minds of the reader with more in-depth reporting and analysis.”⁴⁷ Additionally, technology has made print media more relevant and faster, especially considering that most print media is published online, and many old printed pieces have been added to online databases.⁴⁸

Announcements should primarily aim to update residents on major events in the development of the CAP. However, if these major releases are not supplemented with weekly and monthly reminders, residents may become uninterested. As mentioned, announcements for events are crucial, but general engagement announcements improve awareness and minimize formalities. With more avenues through which residents can learn about their CAP, people will be substantially involved, and the final product should be more inclusive.

To address equity, we recommend that announcements are made in both English and Spanish, and sources should be both online and in print. Similarly, to the announcements for draft comments, general updates should be sensitive to non-native English-speaking communities, those with disabilities and low-income residents.⁴⁹ Making announcements in Spanish and English will improve diversity of involvement. Flagstaff, Arizona and Milwaukie, Oregon are examples of cities that have taken on this inclusive approach to their CAPs.⁵⁰ We suggest that Northfield has at least one volunteer or staff who is able to fluently speak Spanish so that Spanish-speaking residents can follow-up with any questions or concerns that they may have with the announcements. Lastly, print sources are valuable engagement tools for low-income residents who may not have access to a computer or for the elderly population who may not be as equipped with technology. Email, social media, and online updates are great tools for many

⁴⁷ Ibid.

⁴⁸ “Writing for Print Media.”

⁴⁹ “City of Milwaukie Climate Action Plan: Communications and Engagement Plan.”

⁵⁰ “Public Engagement Strategy: Flagstaff Climate Action and Adaptation Plan.” Flagstaff. December 2017. https://www.flagstaff.az.gov/DocumentCenter/View/56237/Flagstaff-Public-Engagement-Strategy_Draft_12-1-17.

people in Northfield, but without print announcements, the CAP will not reach its full potential.

E. Drafts of CAP with Surveys and Events

We propose that Northfield use a draft and survey system during the creation and implementation stage of its CAP. As Northfield begins writing its CAP, it will likely go through a series of drafts that are revised and reviewed by members of local government and residents. While these revisions are crucial to the success of the CAP, it is important to include other members of the community during the revision stages. Other communities, both similar and different to Northfield, have found great success in allowing for community-wide revisions. For example, San Diego County utilized a draft process during the engagement and communication stages of its CAP. The County is quoted saying: “Having a clear process by which the public can be involved, review, and comment on the draft CAP will result in a better document that can be used later to streamline CEQA analysis and compliance for many types of projects in the County.”⁵¹

It is not necessarily wise to publicly post the draft at all stages of the process, rather we recommend that the city ask for recommendations and public comments only at the major stages. For example, some cities, such as Milwaukie, Oregon, have requested public comments in the pre-stages of their CAP design. Milwaukie organized a summit “advertised via the City website, by email and in local news outlets.” At the summit and with an online survey, the city accumulated feedback that helped it to write its first draft of the CAP. The city also paid close attention to equity.⁵² After this initial stage, the city will hopefully begin writing the CAP. During the writing stages, Northfield should continue to hold summits and issue surveys to encourage public comment and feedback. In four California cities, Pasadena, El Cerrito,

⁵¹ "Public Outreach and Engagement Plan Climate Action Plan." San Diego County

⁵² "City of Milwaukie Climate Action Plan: Communications and Engagement Plan."

Oceanside and Las Encinitas, public comment events were organized in an attempt to gather feedback. Typically, comments are accepted at both the event and online through a survey or an online portal. At the events or workshops, Northfield should be prepared to answer questions regarding the CAP. We also suggest that the city include a presentation that gives more general information about the CAP and the impending threats of climate change.⁵³ Additionally, we suggest that the online or written comment period last between one and two months, allowing for ample response time.⁵⁴

All outreach regarding public commenting opportunities and any events associated with this should be made available to non-native English-speaking communities (Spanish-speaking in particular), those with disabilities and low-income residents.⁵⁵ By publishing outreach in both Spanish and English, as did Flagstaff, Arizona, Northfield will reach a more diverse audience.⁵⁶ It is also important to ensure that Spanish-speaking individuals are able to submit comments in Spanish. If other language barrier issues arise, we recommend that the city work with the foreign language departments at either Carleton or St. Olaf to address these language needs. To include residents with disabilities or those of lower socioeconomic status, public events and online surveys should be diversified. For example, events should be held at multiple times and children should be allowed to attend to accommodate a variety of work schedules. Additionally, these events should be broadcasted on Facebook or other online sources so that those with mobility

⁵³ "PRESS RELEASE - Public Invited to Provide Input on City's Draft Climate Action Plan." The City of Encinitas. July 7, 2017. <https://www.encinitasca.gov/Home/City-News/ArticleID/51>;

"Oceanside Draft Climate Action Plan (Cap) Public Workshop." Osidenews. February 13, 2018. <http://www.osidenews.com/2018/02/14/oceanside-draft-climate-action-plan-cap-public-workshop/>.

⁵⁴ Maria Sanders, Melanie Mintz, and Karen Pinkos. "Agenda Item No. 7(A): Public Release of the Draft Climate Action Plan." The City of El Cerritos. <http://www.el-cerrito.org/DocumentCenter/View/2467/cc13-02-197a>;
"Public Invited to Comment on Draft Climate Action Plan." City of Pasadena: Office of the City Manager. January 12, 2018. <https://www5.cityofpasadena.net/city-manager/2018/01/12/public-invited-to-comment-on-draft-climate-action-plan/>

⁵⁵ "City of Milwaukie Climate Action Plan: Communications and Engagement Plan."

⁵⁶ "Public Engagement Strategy: Flagstaff Climate Action and Adaptation Plan."

restrictions can remain engaged from their homes.⁵⁷ Also, all public events should be easily accessible, in order to accommodate those with disabilities.⁵⁸ Lastly, and as Northfield already does at many of its events, such as Earth Day, the city should make sure to have an ASL translator present at all community-wide events.

The surveys and comment related information should also be distributed through paper sources, considering not all residents have access to computers.⁵⁹ We recognize that Northfield cannot anticipate all equity issues which is why it is important for the city to design a working group that focuses on this issue. For example, Portland, Oregon created an equity working group comprised of members from six different community organizations representing low-income and minority communities.⁶⁰

VI. Key Issues in Program Design and Implementation

A. Incorporating Equity

In addressing equity, it may be difficult to construct meaningful outreach if the leadership is relatively homogenous. While this issue may be difficult to overcome at first, creating an equity working group should definitely alleviate concerns. Regardless of the working group, it is important that CAP leaders articulate inclusive messaging from the beginning and avoid demeaning or minimizing minority voices. If underrepresented populations feel targeted, alienated or belittled by those with more power, it may undermine Northfield's equity outreach strategies. Therefore, it is crucial that leaders in the community be thoughtful and respectful

⁵⁷ Hazem Rashed-Ali, et al. "City of San Antonio Climate Action and Adaptation Plan (CAAP)." San Antonio. January 26, 2018.
<http://www.sanantonio.gov/Portals/0/Files/Sustainability/CAAPDraftEngagmentPlanPublicReview.pdf?ver=2018-01-26-134007-697>.

⁵⁸ "City of Milwaukie Climate Action Plan: Communications and Engagement Plan."

⁵⁹ "The Integration of Equity in the Portland/ Multnomah County 2015 Climate Action Plan."

⁶⁰ Ibid.

throughout the process. The equity working group, consisting of residents from a variety of backgrounds, will greatly aid in this challenge.

Incorporating equity into the development of Northfield's CAP will foster inclusivity and lead to better decision making. However, depending on the political climate of Northfield, some residents may feel that their voices are being drained out in the city's attempt to expand its support system. Additionally, and as mentioned previously, the city may not be able to address all minority groups. If Northfield fails to identify a population in the city that would benefit from equitable outreach, that group may feel unacknowledged and unimportant. However, the benefits to developing comprehensive and thoughtful communication and engagement strategies focused on equity far outweigh the difficulties associated with this goal.

Achieving equity is relatively cost free. However, the city may need to spend money on translating services to assist in both communication and engagement. The city could pay Carleton and St. Olaf students to help in this process or hire private firms to translate documents if the colleges are unable to assist. While translating may cost the city time and money, Northfield could save money by requesting volunteers/interns who could provide translation services for the city. The benefit of using volunteers and interns from Carleton and St. Olaf is that these students will become involved in the CAP and likely spread awareness. Also, these students may be able to attend local events that may need a translating service. To reach low-income communities and those with disabilities some costs may be incurred from printing more material than would typically be necessary, but these costs are relatively insignificant. Lastly, the city may need to alter event sites so that they are more accessible for disabled residents. However, it is highly unlikely that any of the site locations would be handicap inaccessible in the first place.

B. Identifying Stakeholders

The few challenges associated with identifying stakeholders can be attributed to both identifying the correct groups and enough groups. When creating stakeholder groups, it is important to identify the members that have significant influence and knowledge in designing and implementing policies that can be effectively achieved. However, it can be difficult to know which members have that information. The CAPAB, EQC, or whatever group is in charge of identifying relevant stakeholder groups should aim to reach out to all of the important stakeholders and not leave any out. By grouping stakeholder groups together, the communication strategies used may not work as effectively, in comparison to defining very narrow groups. This could cause lack of public engagement later in the process.

Another challenge associated with including numerous stakeholders is that too many people may become involved in the development and planning process. With too many people involved, the process can be prolonged and become more complicated. Additionally, it may be difficult to incorporate all of the suggestions and feedback. If individuals or stakeholder groups feel that their input is ignored, this could lead to push-back later in the implementation process.

There is minimal to no cost associated with identifying stakeholders. The only real cost is time and human resources. For example, the CAPAB or another board will likely need to take the time to develop these groups.

C. Meetings and Public Hearings

While meetings and public hearings are effective sources of both communication and public engagement, there are a few challenges associated with these events. The most prominent challenge is attracting substantial attendance. If not enough attention is brought to the gathering, attendance will be scarce and the effectiveness of the event will be minimal. Northfield must

spend considerable time developing strategies to reach a large population and incentivize people to attend meetings. However, many of our recommendations provide examples for achieving this goal. As discussed, Northfield should compile contact lists for stakeholders, and send out announcements as sources that communicate both the CAP's progress and details of upcoming events. By using these methods of communication and public engagement in a cohesive and continuous manner, Northfield will more effectively engage the community than if it were to use these strategies only one at a time.

A challenge associated with announcements about meetings and public hearings may be cost. As with identifying stakeholders, there is the cost of time and human resources. However, there is the potential for external costs in printing and design as well. Additionally, two of the recommendations associated with the meetings and public hearings strategy were providing childcare and food at the meetings in order to make them more accessible. If these recommendations are taken into consideration, there could be the added cost of paying individuals for childcare, as well as paying for food. However, there are alternative solutions to having to pay for these costs. One solution for childcare could be setting up a community service program with the local high school, where high school students could volunteer to watch children during the duration of the meeting. Community service hours could be used to get more credit or could be put towards clubs like the National Honors Society. Similarly, a solution to the cost of food could be asking volunteers to bring food to the meetings. Individuals could sign up to bring in vegetable trays, sandwiches, etc. Sign-up sheets could be passed around with participation being completely voluntary.

D. Announcements and Updates

While social media has many beneficial uses that cause effective and efficient communication between residents, there are negative impacts that occur with the use of social media as a tool for communication - especially when it relates to politics. Because of the speed at which social media spreads, communication, misinformation, erroneous information and libel can rapidly reach the eyes of countless people within minutes.⁶¹ However, to some extent this can be combated. In Bryer's study, looking at a case involving the Metropolitan Transit Authority (MTA) in Southern California, the Facebook page they created came with a list of comment guidelines (see Appendix 3). They explained the type of comments encouraged and discouraged and included a notice warning that any comment containing inappropriate content would be removed. Using this strategy, the MTA page was able to monitor the information that was accessible on its website and limit it to solely effective, productive content.

Written media, specifically print media, is often seen as a dying institution. With the rise of alternative sources of media and information, it has become increasingly less popular. In 2015, weekday circulation and Sunday circulation fell by 7% and 4% respectively. Additionally, print advertising revenue has experienced a significant drop; it fell by about 8% in 2015. However, it is important to note that while newspaper circulation has been on the decline, it is still the most widely used way of reading the news (51% in 2015).⁶² Newspapers are also environmentally undesirable because they waste paper and ink and require transportation.

Additionally, the median age of people who read newspapers is 53.5. This is about 12 years more than those who read the newspaper online and about 15 years more than those who

⁶¹ Thomas Bryer.

⁶² Amy Mitchell, Jesse Holcomb, and Rachel Weisel. 2016. "State of the News Media 2016." Pew Research Center. <https://assets.pewresearch.org/wp-content/uploads/sites/13/2016/06/30143308/state-of-the-news-media-report-2016-final.pdf>

read the newspaper on their phones (through Facebook and the Huffington Post).⁶³ The relatively older ages that these sources attract, may pose a problem to the youth and college students in Northfield. However, there are alternative avenues of reading the news other than these three mediums. This project hopes to address these younger populations with social media and the visual media that is often associated with written sources.

Lastly, print announcements can be costly to produce and generate significant waste. If these mediums are handled efficiently and the messaging/visuals are effective, they can help promote important campaigns and events. However, if they are unprofessional or poorly thought-out and executed, they will be wasteful.

E. Drafts of CAP with Surveys and Events

Various issues that may arise during this process are mostly related to oversaturation of information and the city being unable to meet certain requests. By opening up the CAP to public comment during the drafting phase, Northfield risks being subject to criticism that may be difficult to resolve. The city could be seen as not listening to the voices of its residents, while in reality the complaints may just be too complex or the issues may be unavoidable. Additionally, in making sure to reach a wide range of Northfield's residents, the city may find itself spending more time and money than it initially expected. The unforeseen hurdles that will likely arise may not be easily addressed, but the equity working group should help to mitigate any major problems. Despite these issues with implementation, most cities encourage a public drafting period because it fosters a more inclusive and sustainable CAP, the lynch pins for success. Additionally, equity is crucial to inclusivity. This process will amplify the voices of Northfield's residents and strengthen the city's CAP.

⁶³ Jim Conaghan. 2017. "Young, Old and In-Between: Newspaper Platform Readers Ages Are Well Distributed." News Media Alliance. *News & Insights* (blog). May 17, 2017. <https://www.newsmediaalliance.org/age-newspaper-readers-platforms/>.

VII. Conclusion

This paper demonstrates the importance of communication and public engagement to developing inclusive and comprehensive CAPs. By using recommendations from cities across the country and supplementing these suggestions with our own creative initiatives, we offer a detailed analysis of the communication and public engagement strategies most likely to benefit Northfield. Crucial to the success of Northfield's CAP is incorporating equity and identifying stakeholders. Without these two processes, the city will fall short of its ultimate goal: climate change adaptation and mitigation. However, we also offer additional recommendations that are necessary components to effective communication and engagement.

Local communities play a key role in addressing climate change issues. To be successful, Northfield must work with the community to inspire change. We hope that our proposals regarding communication and public engagement can act as a platform to help Northfield work towards an effective CAP. We are excited to be a part of the process and look forward to seeing all that Northfield can accomplish.

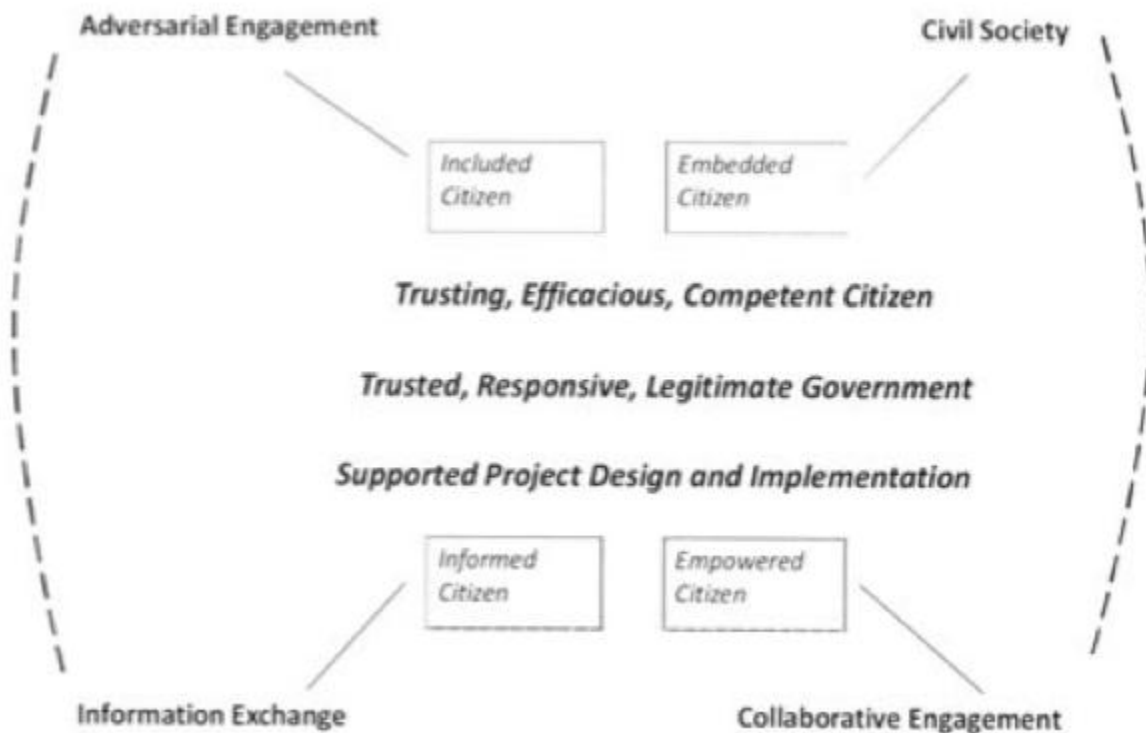
APPENDIX 1: EARTH DAY PRESENTATION



Picture of keynote speaker, Mark Seely at Earth Day 2018. Mark Seely gave a presentation on the climatology of Minnesota. Prior to this presentation, the community enjoyed activities such as yoga, biking, picking up trash, an art march, and food trucks!

Photo taken by Sophie Homans

APPENDIX 2: SOCIAL MEDIA MODEL FOR DESIGN AND IMPLEMENTATION



Proposed model for designing and implementing social media, with the goal of increasing civic engagement.⁶⁴ Civil society, adversarial engagement, information exchange, and collaborative engagement are all outcomes from effective social media use, creating citizens who are included, embedded, informed, and empowered.

⁶⁴ Thomas Bryer.

APPENDIX 3: FACEBOOK GUIDELINE EXAMPLES

Table 2. Metro Facebook Comment Guidelines

Metro welcomes comments and opinions from all visitors to our online communities relating to Southern California transit topics and issues. All visitors to our sites need to abide by our online comment guidelines.

We encourage comments that:

- Are "on topic," or that stick to the subject matter of the article or blog post.
- Are responses to comments left by other readers.
- Are brief and have a positive, constructive tone.
- Are open to being contradicted by other readers.
- Might disagree with the content in the article or blog post, but do not insult the writer (or commenter) of an article or blog post.

We discourage comments that:

- Are not "on topic," or that don't stick to the subject matter of the article or blog post.
- Insult the writer (or commenter) of an article or blog post.
- Are nonconstructive, hateful, or spiteful. Should comments or exchanges develop into personal attacks or inappropriate remarks, Metro reserves the right to remove them.

We will delete comments that contain language or imagery which:

- Are defamatory, compromise public safety or operations, contravene law, or are disruptive or factually inaccurate.
- Are harassing, threatening, or vulgar (including personal attacks or comments disparaging an individual or group based on ethnicity, race, gender, religion, age, disability, or sexual orientation), invade personal privacy, contain sexual content, or are obscene.
- Are advertising or spam, including any link to another site.
- Infringe on a copyright or other proprietary right.
- Violate any of this site's Terms and Conditions.

Violation of Metro's online comment guidelines will result in a commenter's post being removed without notice.

Source: https://www.facebook.com/WestsideSubwayExtension/app_7146470109.

Example of Facebook Guidelines used to steer citizens towards productive beneficial comments. While the information and any comments and discussion posted on the page are not censored before posting, the site states that comments that violate certain guidelines will be removed without notice.⁶⁵

⁶⁵ Thomas Bryer.

APPENDIX 4: MEASURING EQUITY

EQUITY CONSIDERATIONS

1. Disproportionate impacts

Does the proposed action generate burdens (including costs), either directly or indirectly, to communities of color or low-income populations? If yes, are there opportunities to mitigate these impacts?

2. Shared benefits

Can the benefits of the proposed action be targeted in progressive ways to reduce historical or current disparities?

3. Accessibility

Are the benefits of the proposed action broadly accessible to households and businesses throughout the community — particularly communities of color, low-income populations, and minority, women and emerging small businesses?

4. Engagement

Does the proposed action engage and empower communities of color and low-income populations in a meaningful, authentic and culturally appropriate manner?

5. Capacity building

Does the proposed action help build community capacity through funding, an expanded knowledge base or other resources?

6. Alignment and partnership

Does the proposed action align with and support existing communities of color and low-income population priorities, creating an opportunity to leverage resources and build collaborative partnerships?

7. Relationship building

Does the proposed action help foster the building of effective, long-term relationships and trust between diverse communities and local government?

8. Economic opportunity and staff diversity

Does the proposed action support communities of color and low-income populations through workforce development, contracting opportunities or the increased diversity of city and county staff?

9. Accountability

Does the proposed action have appropriate accountability mechanisms to ensure that communities of color, low-income populations, or other vulnerable communities will equitably benefit and not be disproportionately harmed?

The equity working group in Portland, Oregon “used the [above] Equity Considerations to conduct a basic equity assessment of every action proposed in the draft Climate Action Plan. Actions were revised based on that assessment and the updated actions were shared with the Equity Working Group to determine if their feedback had been adequately integrated.”⁶⁶

Works Cited

⁶⁶ "The Integration of Equity in the Portland/ Multnomah County 2015 Climate Action Plan."

- Bryer, Thomas. 2013. "Designing Social Media Strategies for Effective Citizen Engagement: A Case Example and Model." *Wiley Periodicals*, April.
<https://onlinelibrary.wiley.com/doi/pdf/10.1002/ncr.21114>.
- Camacho, Alejandro E. "Adapting Governance to Climate Change: Managing Uncertainty through a Learning Infrastructure." *Emory Law Journal* 59, no. 1 (2009): 1-77.
- "Census Reporter Profile Page for Northfield, MN." Census Reporter. 2016.
<https://censusreporter.org/profiles/16000US2746924-northfield-mn/>.
- "City of Milwaukie Climate Action Plan: Communications and Engagement Plan." Milwaukie Oregon. February 7, 2018.
https://www.milwaukieoregon.gov/sites/default/files/fileattachments/sustainability/page/85191/2018_0207_milwaukie_cap_publicengagementplan_finaldraft.pdf.
- "City of Northfield." 2017. Minnesota GreenStep Cities. 2017.
https://greenstep.pca.state.mn.us/cityInfo.cfm?ctu_code=2395265&open=1.
- "City of Northfield Minnesota: FY 2018-2020 Strategic Plan." August 2017.
<https://www.ci.northfield.mn.us/DocumentCenter/View/5833/Northfield-Strategic-Plan-2018---2020>
- "Climate Action Plan." City of Whitefish Montana. <http://www.cityofwhitefish.org/public-works/climate-action-plan.php>.
- "Climate Communication for Local Governments." Serppas. November 2011.
https://serppas.org/media/1079/http___wwwicleiusaorg_action-center_engaging-your-community_iclei_climate_communication_local_governments.pdf.
- "Communications and Community Engagement Plan 2015-2016." City of Novato. 2015-2016.
<https://novato.org/home/showdocument?id=13163>.
- Conaghan, Jim. 2017. "Young, Old and In-Between: Newspaper Platform Readers Ages Are Well Distributed." News Media Alliance. *News & Insights* (blog). May 17, 2017.
<https://www.newsmediaalliance.org/age-newspaper-readers-platforms/>.
- Cristofaro, Mary Jo. 2018. Interview for Environmental Law and Policy Group Project.
- "Definition of Equity." English Oxford Dictionaries.
<https://en.oxforddictionaries.com/definition/equity>.
- Douglas, Paul. "State Climate Office: 2016 First Year With 2 Minnesota "Mega-Rain" Events." Star Tribune. September 27, 2016. Accessed May 29, 2018.
<http://www.startribune.com/state-climate-office-2016-first-year-with-2-minnesota-mega-rain-events/395046591/>.

- Gardner, John, Anne-Maree Dowd, Claire Mason, and Peta Ashworth. "A Framework for Stakeholder Engagement on Climate Adaptation." CSIRO. Climate Adaptation National Research. 2009. https://research.csiro.au/climate/wp-content/uploads/sites/54/2016/03/3_CAF_WorkingPaper03_pdf-Standard.pdf.
- "Greater Northfield Sustainability Collaborative." n.d. Greater Northfield Sustainability Collaborative. Accessed April 25, 2018. <http://northfieldsustainability.org/>.
- Kelly, Cathleen, Cecilia Martinez, and Walker Hathaway-Williams. "A Framework for Local Action on Climate Change." Center for American Progress. September 28, 2017. <https://www.americanprogress.org/issues/green/reports/2017/09/28/439712/framework-local-action-climate-change/>.
- "Minnesota State University Mankato Climate Action Plan." Minnesota State University Mankato. August 5, 2015. <https://www.mnsu.edu/greencampus/climateactionplan/MinnesotaStateUniversityMankatoClimateActionPlanv3.pdf>.
- Mitchell, Amy, Jesse Holcomb, and Rachel Weisel. 2016. "State of the News Media 2016." Pew Research Center.
- "Northfield, MN - Official Website | Official Website." 2016 TH 246 and Jefferson Parkway Intersection Study | Northfield, MN - Official Website. Accessed May 29, 2018. <https://www.ci.northfield.mn.us/>.
- "Notice of Public Hearing: Climate Action Plan for Unincorporated Napa County." County of Napa. <https://www.countyofnapa.org/DocumentCenter/View/333/Climate-Action-Plan-Public-Hearing-Notice-for-April-3-2012-PDF>.
- "Oceanside Draft Climate Action Plan (Cap) Public Workshop." OsideNews. February 13, 2018. <http://www.osidenews.com/2018/02/14/oceanside-draft-climate-action-plan-cap-public-workshop/>.
- Oosterman, Jonathan. 2016. "Making Climate Action Meaningful: Communication Practices in the New Zealand Climate Movement." *New Zealand Sociology; Hamilton* 31 (5): 131–57.
- "Pledge Element 2 - Develop a Local Climate Action Plan." Department of Environmental Conservation. <https://www.dec.ny.gov/energy/67101.html>.
- "Policy Paper: Working with Communities to Tackle Climate Change." 2010. NESTA. https://www.nesta.org.uk/sites/default/files/working_with_communities_to_tackle_climate_change.pdf.

- "PRESS RELEASE - Public Invited to Provide Input on City's Draft Climate Action Plan." The City of Encinitas. July 7, 2017. <https://www.encinitasca.gov/Home/City-News/ArticleID/51>.
- "Public Engagement Strategy: Flagstaff Climate Action and Adaptation Plan." Flagstaff. December 2017. https://www.flagstaff.az.gov/DocumentCenter/View/56237/Flagstaff-Public-Engagement-Strategy_Draft_12-1-17.
- "Public Invited to Comment on Draft Climate Action Plan." City of Pasadena: Office of the City Manager. January 12, 2018. <https://ww5.cityofpasadena.net/city-manager/2018/01/12/public-invited-to-comment-on-draft-climate-action-plan/>
- "Public Outreach and Engagement Plan Climate Action Plan." San Diego County. March 2016. <https://www.sandiegocounty.gov/content/dam/sdc/pds/advance/cap/SDCountyCAP-PublicOutreachandEngagementPlan.pdf>.
- Rashed-Ali, Hazem, Roger Enriquez, John Merrifield, Keith Muhlestein, Francine Romero, Hatem Sharif, and Rob Tillyer. "City of San Antonio Climate Action and Adaptation Plan (CAAP)." San Antonio. January 26, 2018. <http://www.sanantonio.gov/Portals/0/Files/Sustainability/CAAPDraftEngagmentPlanPublicReview.pdf?ver=2018-01-26-134007-697>.
- Reed, Mark S. 2008. "Stakeholder Participation for Environmental Management: A Literature Review." *Biological Conservation* 141 (10): 2417–31. <https://doi.org/10.1016/j.biocon.2008.07.014>.
- Sanders, Maria, Melanie Mintz, and Karen Pinkos. "Agenda Item No. 7(A): Public Release of the Draft Climate Action Plan." The City of El Cerritos. <http://www.el-cerrito.org/DocumentCenter/View/2467/cc13-02-197a>.
- "St. Louis Park Climate Action Plan: 2040 Setting a Course toward Carbon Neutrality." St. Louis Park. February 2018. <https://www.stlouispark.org/home/showdocument?id=8214>.
- "The Council Initiative on Public Engagement New Public Engagement Practice and Implementation Roadmap Final Report." City of Edmonton. April 2017. https://www.edmonton.ca/programs_services/documents/NewPublicEngagementPracticeandImplementationRoadmapFinalReport.pdf.
- "The Integration of Equity in the Portland/ Multnomah County 2015 Climate Action Plan." Portland Oregon. July 12, 2016. <https://www.portlandoregon.gov/bps/article/583501>.
- "Writing for Print Media." 2018. National Institute of Agricultural Extension Management (MANAGE). <http://www.manage.gov.in/studymaterial/printmedia.pdf>.