Overseeing Oversight: CAG and the Hudson River PCB Superfund Site

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**Abstract**

In the 1940s, General Electric (GE) dumped 1.3 million pounds of polychlorinated biphenyls (PCBs) into the Hudson River in Upstate New York. As a result, 40 miles of the Hudson River was declared a Superfund site. When GE was forced by the Environmental Protection Agency (EPA) to dredge contaminated PCB sediment from the Hudson River, there was concern of agency capture due to EPA and GE’s close knit relationship.

In order to make sure that GE and the EPA are held accountable for their actions, a unique form of oversight known as the Community Advisory Group (CAG) is utilized. The CAG is made up of a variety of unelected officials, who represent different community interests in the area. We gathered data about CAG through semi-structured interviews, archival analysis, and by attending a CAG meeting. Our results indicate that compared to traditional oversight, CAG members have more dedication, technical capacity, ability to expand the cleanup project, and ability to share knowledge. However, there is lack of public involvement, lack of member commitment and stakeholder bias. While CAG does have its flaws, we believe that CAG is an effective form of oversight.

**Introduction**

The Hudson River polychlorinated biphenyls (PCB) Superfund site in New York, is one of the largest environmental cleanups in history. General Electric (GE) contaminated the river with 1.3 million PCBs, coming from multiple overflow pipes from two of GE’s facilities in Hudson Falls, NY and Ft. Edwards, NY. However, it is estimated that there are potentially 1 million more pounds of PCBs in the Hudson River (Lyons, 2014). PCBs are commonly used for electrical equipment such as capacitors and transporters.

GE has been working with the Environmental Protection Agency (EPA) for the past 10 years to dredge the Hudson River of PCBs and restore it to its former ecological integrity. The EPA is overseeing this project, with oversight from several different groups including the Community Advisory Group (CAG). Our study focused on understanding how this complex oversight structure works and what the implications are of using this unique form of oversight.

The form of oversight specific to the Hudson River PCB Superfund site is unique in comparison to other clean ups due to its democratic nature and self-elected CAG. Through the study of CAG we will explore the ways in which non-traditional forms of oversight function and how effective this is in comparison to traditional forms of oversight.

**Purpose Statement**

The purpose of our research is to explore the role of CAG as an alternative type of oversight in the Hudson River PCB Superfund site, and how it compares in effectiveness to traditional oversight. Major overarching questions for our research include:

1. How is oversight in the Hudson River PCB Superfund site implemented?
2. Is CAG a successful form of oversight?
3. How does CAG compare to traditional forms of oversight?

**Background**

Superfund, also known as The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), was created in the 1980s for the purpose of cleaning environmental hazardous waste sites (EPA, 2014). Superfund gives the EPA authority to compel responsible parties to clean hazardous waste sites they have contaminated. The Superfund process is time consuming and there are a number of steps in place to ensure the effectiveness of the clean up. These steps give them authority to conduct removal actions, enforce responsible parties, ensure community involvement, involve the states, and ensure long-term protectiveness (EPA, 2014).

The Hudson River was declared a Superfund site in 1970, after a remedial investigation found large concentrations of PCBs in the river as a result of pollution from GE manufacturing plants. The New York State Department of Environmental Conservation (NYDEC) and the EPA decided that leaving PCBs in the Hudson River was the best solution because there was a possibility the water supply could be contaminated when PCBs were extracted. However, in the 1980s, the environmental decision making process was reopened with the help of community involvement and political pressure. From 1989 to 2002, the EPA and NYDEC explored the best possible methods to clean up the Hudson River (Benaman 2014).

There were several options considered when choosing to clean the Hudson River. The first option considered was dredging. Dredging involves scooping PCBs from the river bed with as little contamination as possible. Another option considered was capping. Capping is when a large number of sediments consisting of organic carbon are used to attract the PCBs, and is then layered over the top of the river bed. Because PCBs are attracted to organic carbon, there is less risk of water contamination above the bed. The last option considered was natural attenuation or the 'do nothing' solution. Natural Attenuation involves placing clean sediments over the river bed which will hopefully trap the PCBs and prevent further contamination of the river. After much debate, dredging was chosen as the best possible solution to clean the Hudson River (Benaman 2014).

Prior to the cleanup and throughout the process, GE has been reluctant to take responsibility for their actions (Lyons, 2014). GE’s CEO, Jack Welch, has stated continuously that PCBs are safe and cause no harm to the environment (Lyons, 2014). However, the International Agency for Research on Cancer has linked PCBs with reproductive, toxic, and carcinogenic risks (Lyons, 2014). Despite these facts, GE was highly opposed to dredging the Hudson River because they said it would cost too much money and could potentially cause more harm to the environment. For over two decades, the EPA and GE argued about the toxicity of PCBs and dredging the Hudson River. Additionally, GE waged a media campaign to prevent the dredging process from occurring. However, eventually GE was forced to dredge the Hudson River after EPA released the Record of Decision (ROD) in 2002.

A ROD is the outcome of extensive investigations to create a solution to remove threats to the public's health and the environment (EPA, 2015). The content of a ROD includes:

1. Superfund site location
2. Description and history
3. Problem identification
4. Status of the enforcement actions
5. Goals for remedial action
6. Discussion of remedial alternatives
7. Selected remedial actions
8. The responsiveness summary
9. The administrative record (EPA, 2014).

.The ROD set a goal for the project, the method to be used (a combination of dredging and minimal capping), the scope, and the parameters of the cleanup. The ROD holds GE responsible for cleaning up 2.65 million cubic yards of contaminated sediments in the Hudson, in addition to removing 150,000 pounds of PCBs. The projected cost of this project was $500 million (EPA, 2015).

Once a site is considered Superfund and the cleanup begins, an agency oversees the behavior of the industry performing the cleanup. Additionally, different stakeholders groups oversee that the cleanup is done properly. In the case of the Hudson River PCB Superfund site, many different stakeholders make sure that both the EPA and GE are adhering to the contract that was written in 2002, and that they are held accountable for their actions.

The dredging process is expected to be completed by the spring of 2015. After, there will be a restoration process, which involves restoring the ecological habitat and covering the river bed with clean material.

**Traditional Oversight**

The most common types of traditional oversight include legislative oversight, which uses tools such as congressional hearings, media, public participation and agency oversight. While Congressional Oversight is one of the most common types of oversight, it has yet to be well measured. However, Cynthia Nolan argues that it functions better in coalition with bureaucratic agencies, like the EPA (Nolan, 2014). Nolan claims that bureaucracies have more expertise than Congress, and that congressional relationships with bureaucratic agencies are rooted in a, “trade off between accountability and expertise” (Nolan, 2014). Additionally, “more technical and complex subjects discourage the likelihood of oversight” (Nolan, 2014). While a member of congress could gain necessary expertise over time, it would involve a time commitment. This is less likely to happen because legislators/congress representatives may not prioritize these oversight duties or issues in their political career (Nolan, 2014). As a result, few members of Congress become experts on these subjects. However, this does not mean that legislative/congressional oversight is a failure. The success of legislative oversight lies in transparency. Nolan argues that the more transparent a subject is, the more accountable the bureaucratic agency will be. There are congressional tools which increase transparency,  including public debates, speeches, reports, and votes (Nolan, 2014).

Media is another method of traditional oversight. Media such as newspaper articles are considered key democratic elements that play an important role in bridging the gap between society and those who govern. The media provides reliable and diverse information to the public

and can serve as a government watchdog that holds political and state actors accountable for their actions (Caparini, 2004). However, governments may suppress certain information if they believe its release would harm public interests, therefore creating tension between government and the media (Caparini, 2004). As a result, the media cannot be solely relied on to act as oversight in a cleanup project.

Public involvement also plays an important role in traditional oversight. For successful and democratic governance, it is essential for the public to be informed, involved, and educated. However, in governance, it is rare to find an active and successful form of public participation (Steiner, 2011). In order to have an active role, the public or a representative of the public, needs to hold a formalized role in the oversight process with the government and industries (Steiner, 2011). Unfortunately, even in long-established democracies, the relationship between the public and government/industries has been unsuccessful. As a result, public interests fail to be addressed (Steiner, 2011). While government agencies are obliged to serve in the public’s best interests, many agencies are too closely tied to the industries that they are regulating, to provide successful oversight (Steiner, 2011).

Lastly, there are a number of ways the agency overseeing a project acts as oversight. For example, when monitoring cleanup sites, the EPA conducts daily inspections of the site and equipment of an industry to make sure that they are safely and efficiently cleaning up a waste site. In addition, they also have public hotlines where the public can call and voice their concerns about the cleanup process (EPA, 2014). If the agency is reliable and holds up their responsibilities, then this can serve as an effective form of oversight.

**Non-Traditional Oversight**

Non-traditional forms of oversight are not commonly used, however can be very helpful in overseeing an environmental cleanup project. One method of non-traditional oversight is known as a Community Advisory Group (CAG). CAG is a group that is formed by the EPA and independently run by unelected members. These members come from a variety of backgrounds and represent numerous interests. Additionally, CAG is designed to serve as a forum for the exchange of information among local community and EPA, the state regulatory agency and other pertinent federal agencies involved in cleanup of the Superfund site (EPA, 2015). There are currently, 65 CAGs in the United States and they are generally formed for larger and more time consuming cleanup projects. These CAGs have seen varying levels of success in serving as a form of oversight (EPA, 2015).

**Successful Examples of Oversight**

Authors Kenneth Morgan and Gary Stegner bring up the example of the Fernald Uranium Plant, which experienced severe environmental and health impacts as well as serious backlash from the community in the 1980’s. They remedied these problems through the use of a CAG, which positively influenced oversight in this instance. The Fernald Uranium Plant was a facility of the US Department of Energy, and became a media sensation when the system released 300 pounds of uranium oxide into the environment and several off property wells were contaminated with uranium. Fear and outrage spread while citizen activism groups formed, and negative publicity caused several lawsuits. There were major technical problems at the site, which were creating serious health and environmental problems (Morgan & Stegner, 2011). In order to address these problems as well as quell the outrage within the community, advisors knew they had to change their communication “to establish two way personal communication with primary stakeholders” (Morgan & Stegner 2011, p. 69). Fears that existed around the creation of CAG were that it would only represent part of the community, and that time and resource consuming trivial issues would become the focus of the group. However, the Fernald Advisory Board was very successful in terms of decision making, addressing concerns within the community, and quelling negative feelings towards the site and agency due to their wise choice in stakeholders, as well as the facilitator. (Morgan & Stegner, 2011). This shows how CAG can serve as an effective form of oversight when used properly.

**Unsuccessful Examples of Oversight**

A serious issue in terms of effective oversight is a problem known as agency capture. Agency capture is when government agencies that are established to regulate industries end up being influenced and controlled by the companies the agencies were supposed to regulate (Mank 1993).

The EPA has been subject to agency capture in the past. In 2004, when the EPA stated that hydraulic fracturing (fracking) had little negative impact on the environment, the rate of fracking increased dramatically. It was later revealed that five of the seven people who approved the usage of fracking, had contracts of interests in fracking (Estabrook, 2011). As a result, the EPA is no longer allowed to regulate issues related to fracking.

Additionally, there is ongoing debate as to whether the EPA’s Superfund program has been captured by GE. The main issue with this relationship is that the EPA relies on industry for their expertise, which creates an institutional bias favoring contractors (Mank 1993). As a  result, contractors hired to cleanup waste sites may encourage EPA to undertake expensive cleanup strategies that do little to improve public health or the environment (Mank 1993). These examples show how agency capture can lead to unsuccessful oversight.

**Community Advisory Group (CAG)**

Community Advisory Groups at Superfund sites are an outcome of Superfund Community Involvement, which stems from the EPA’s community involvement program. Fundamental principles of Superfund Community involvement are that people know what the EPA is doing, and have input in the decision making process. CAGs, under this involvement program, seek to inform the public about environmental problems and associated risks, involve members of the public in the process of making cleanup decisions, and identify/resolve conflict (Charnley & Engelbert, 2005). There are currently 65 CAGs in the United States, but only 10% of active sites on the National Superfund list have Community Advisory Groups. Community involvement work at Superfund sites is difficult because the cleanups are complex, controversial, costly, involve routine technical/engineering challenges, and often generates disagreement about how clean a site needs to be for public and environmental health (Charnley & Engelbert, 2005).

A recent study of CAGs found that they have little impact on the planning process in environmental cleanups and there was varying satisfaction with the outcome of certains CAGs. For example, some members found that their CAG was successful at facilitating discussion and circulating information, while other CAG members had serious concerns about their ability to address specific concerns and ability to affect the remediation process (Chess and Purcell, 1999).

What is unique about Community Advisory Groups is their ability to function as unelected community oversight over agencies involved in the cleanup. This brings up the question, whether CAGS are an effective form of oversight, and whether they can be used as an alternative, or in conjunction with more traditional forms of oversight. While CAG has been linked with successfully involving different stakeholders in the past, and working as a form of oversight, we are unsure if this is the case pertaining to the Hudson River PCB Cleanup CAG.

**Research Design**

We decided to focus our research on the Hudson River PCB Superfund site for several reasons. First, the Hudson River cleanup is one of the largest Superfund sites in United States history, ranging a total of 40 miles from Ft. Edward, NY to Troy, NY. It is a large and complex project that affects many different stakeholders. Currently, the EPA is overseeing the project to make sure that GE is adhering to the 2002 Record of Decision. Due to the high risk of agency capture in this project, the possibility for GE and the EPA to shirk their responsibilities on the project is high.

Because of this, oversight of the cleanup is key in terms of getting the work done. This oversight must include representatives from many different agencies/organizations that make sure that progress meets community interests/standards. Due to the variety of stakeholders involved in a cleanup of this size, and the range of interests represented at CAG, oversight developed at this site is uniquely democratic and experimental. Additionally, there is the need to better understand whether an unelected group such as CAG can function as an effective form of oversight, and how it compares to traditional oversight.

**Methods**

*Qualitative Data Collection*

We conducted thirteen semi-structured interviews, with various stakeholders who were involved with the Hudson River Superfund CAG. We developed our interviews with questions that focused on individual opinion/knowledge, as well as information about their organization/group. There was, however, some overlap in the interview questions. The number of questions in each interview typically ranged from ten to fifteen. Common questions asked included, their opinion on GE and EPA’s work, as well as the effectiveness of CAG.

We selected stakeholders to interview by looking at the CAG website and member listings, which showed different organizations that attended and participated in the meetings. Additionally, we looked at CAG meeting summaries to find out which individuals were more active in attendance than others. From there, we chose relevant stakeholders with a wide variety of interests, and contacted them individually to set up meeting times for our group. Table 1 represents the diversity of stakeholders we interviewed.

|  |  |  |
| --- | --- | --- |
| **Name of Interviewee** | **Organization** | **Interest** |
| Abigail Jones | Riverkeeper | Environmental Group |
| Althea Mullarkey | Scenic Hudson | Environmental Group |
| Daniel Raichel | NRDC | Environmental Group |
| Gary Klawinski | EPA | Goverment |
| Jen Benaman | Anchor QEA | GE |
| Joan Gerhardt | Behan Communications | GE |
| Kathryn Jahn | NRDA | Goverment |
| Larisa Romanowski | EPA | Goverment |
| Manna Jo Greene | Clearwater | Environmental Group |
| Ona Ferguson | Consensus Building Institute | Facilitation |
| Tim Holmes | Schuylerville Chamber of Commerce | Community Development |
| Julie Stokes | Saratoga Chamber of Commerce | Community Development |
| Paul Post | The Saratogian | Media |

Table 1   Members we interviewed and their affiliation

We made sure to contact people from different backgrounds in an effort to receive accurate and diverse data.

Each interview lasted an average of 45 minutes, and were conducted either via teleconference or in person. Each interview had specific questions pertaining to each stakeholder. However, there were some overlapping questions for each interview which are listed below:

1. Do you believe GE is doing an effective job? Is it enough?
2. Have the EPA/GE been responsive to concerns addressed by the community?
3. What is your role in CAG?
4. Do you think that CAG is an effective in overseeing the Hudson River PCB cleanup?
5. What other stakeholders do you work with?

We also attended a CAG meeting on April 23, 2015. Because dredging does not occur during the winter, April was the first opportunity for us to attend a meeting. This gave us the chance to observe interactions between stakeholders in person, and watch a number of presentations given by either GE, the EPA, or an environmental group.

*Archival Research*

A large portion of our data also came from archival research. In order to understand CAG as a form of oversight, we had to research oversight, forms of oversight, and their effectiveness in general through literature review. In preparation for our interviews, we thoroughly researched each person and the organization they worked for to keep our questions relevant and noteworthy.

Most of our qualitative data came from the summaries of each CAG meeting from 2004 to present. There have been a total of 67 CAG meetings since January 2004, with each meeting summary ranging from about 10-20 pages. These meeting include topics addressed, presentations given, member concerns raised, and people who attended. We looked through each one of these summaries in order to assess what kind of power the CAG possessed, different concerns raised by the public, how effectively GE and EPA were fulfilling their roles, different forms of oversight used during the project, and general interaction between the public,  GE and EPA.

While reading CAG summaries we coded for topics such as community concerns/requests, as well as conflicts. Afterwards we determined relevant themes from the summaries that would help us better understand the effectiveness of CAG and how they function as a form of oversight. These themes include, dedicated expertise, oversight, decision making power, info sharing, local knowledge, public confidence, and record of decision. We then looked through CAG summaries again and recorded specific examples that demonstrated the above themes. We also made sure to code and take note when navigational dredging, a theme that was very common, was later addressed at meetings. We also coded to see how often every member attended, in order to determine the most active members of CAG throughout the years. Lastly, we coded the summaries to determine how often the public attended CAG meetings. By doing so, we were able to quantify the average number of public attendees per meeting every year, and made a graph based on our findings.

**Results and Discussion**

*A Typical CAG Meeting*

Based on our attendance at a CAG meeting, interviews with CAG members/attendees, and archival analysis of meeting summaries, we have gained a thorough understanding of how a typical CAG meeting functions. CAG started in 2004,  and meets four to eight times per year for three hours, but can run over time. These meetings are held on Thursdays and usually begin at 1:30pm. At the beginning of the meeting, the facilitator asks everyone to introduce themselves and the organization or interest that they represent. Next, the facilitator explains the agenda for the meeting, and the conduct that is to be expected at these meetings. Meeting agendas are created by the CAG’s administration committee (Summary, June 28th 2012).  Next, there is a technical presentation given by either GE or the EPA about the progress of the dredging process.  These presentations usually include pictures of the project, and maps showing areas of the Hudson that have been dredged thus far. After the presentation, there is time for discussion among CAG members and the public during which they can clarify questions they may have as well as make requests to address specific aspects of the remediation process. Although it is usually CAG members speaking, the public have the opportunity to ask questions if they choose. Occasionally, the NRDA will give a presentation about the ecological integrity of the Hudson River and give recommendations to GE and EPA on how to restore the Hudson River. It is also common for Environmental groups such as Scenic Hudson, or Clearwater to give presentations on topics that range from navigational dredging to backfill in certain areas of the Hudson River. After all the presentations are given, the public has time to raise and address concerns they have about the Hudson River, or the cleanup project. The EPA and GE will answer the questions to the best of their ability, but sometimes they do not have the information needed readily available.

*CAG Oversight*

After a review of the list of thirty two CAG members, we found that the main stakeholders represented include environmental concerns, community development, economic development, government, recreation, media, agriculture, environmental justice, labor, as well as GE and the EPA. However, after a review of the CAG summaries, we found that many of these members fail to attend these meetings regularly. The members crossed out in Figure 1 shows the groups that have failed to attend over the years

Figure 1: Interests represented in CAG

As a result, there is a loss of important stakeholder interests such as environmental justice, labor, and agriculture. Additionally, of the members who do attend CAG, summaries reveal that environmental and community development representatives are the most vocal and active in the discussions. This can lead to bias in the types of concerns that are being brought up and may not represent community interests as a whole (Figure 1). These meetings are also open for public attendance, however the CAG summaries reveal that they do not attend often.

*CAG Priorities Over the Years*

When CAG meetings first started in 2004, major priorities for the group included logistics, attendees, and the establishment of communication methods. Communication issues pertain to group email listservs, websites etc. Economic issues focused on jobs created from the project. The first major issue brought up in CAG was where the dewatering facilities would be. Once these dewatering facilities were established, there were many complaints, as the public didn’t have time to properly give their feedback via public comment. Because of this, communication issues were often brought to the meetings, with environmental groups and the public frustrated with their lack of information access, and a desire for GE to have more of a role in the meetings. These problems continued into 2005, with CAG members and the public feeling like the EPA were not addressing their concerns and needs. However, by the end of 2005, CAG felt like there was better communication from EPA.

In 2007, CAG focused more on technical issues, such as dredging plans, floodplains plans, archaeological studies updates, and habitat restoration updates. As the dredging project neared the end from 2010-2015, issues shifted to focus more on bringing attention to areas of the Hudson River that are not being dredged, and are not included in the Record of Decision, such as the navigational canal and 136 acres of contaminated river.

Through our analysis of CAG priorities over the years, we have seen that members have the ability to follow the progress of the dredging process, and even dictate priorities for GE and the EPA to address. Because of this ability to challenge GE and EPA, and push forward their own initiatives, CAG members are able to effectively oversee the project to make sure that topics stay current and relevant. Additionally, CAGs ability to follow different priorities over the years is  something that traditional oversight may not be able to achieve.

*Knowledge Sharing*

Different non-governmental organizations (NGO’s) have accredited CAG in helping them build relationships among fellow groups with similar interests. During CAG meetings, CAG members are able to give presentations and share relevant information such as independent meetings, updates on the project, and data being analyzed. CAG serves as a place where different groups can exchange information and gives groups with similar interests the chance to rally together for larger initiatives. A representative from Clearwater explained that because the Hudson River spans many miles, it is difficult to work together with different organizations who are not closeby (Greene, 2015). However, the CAG gives them the opportunity to share information and form bonds with different organizations, who they normally wouldn’t be able to meet in a common place. She explains:

 What's helpful is that when we make reasonable suggestions the up-river

 communities who also attend the CAG meetings get to hear that and that's how we've

 built trust over the last 15 years. And likewise when they raise concerns we get to hear

 them and advocate for their needs. (Greene, 2015)

This quote demonstrates that while NGO’s may not individually be able to challenge large corporations such as GE, or government agencies like the EPA, when working in tandem they are able to push their initiatives forward and build strong bonds that help them properly challenge GE and EPA to do a good job in the cleanup process.

*Dedication*

GE and the EPA’s cleanup of the Hudson River is a project that has spanned 10-15 years, and the CAG has existed from 2004 to 2015. We found that not all members are equally involved, but there are members who have been involved in the CAG for over a decade. In particular, some of the most dedicated members represent environmental groups, and the Schuylerville chamber of Commerce. (3 members from environmental orgs, 1 from Chamber of Commerce). The environmental organizations most active are Clearwater, Riverkeeper, and Scenic Hudson. Due to their longtime membership and activity in the project, we believe their dedication has led to more effective oversight.

*Technical Capacity*

From the CAG meeting summaries, and the meeting we attended we believe CAG illustrates evidence of exceptional technical expertise. At each meeting there are presentations by the EPA and GE regarding the progress of the current state of dredging, and the future of the project. The Natural Resources Damages Assessment (NRDA) also gives presentations often about how PCBs and the dredging process are affecting wildlife and plants in the Hudson River, and inform CAG members about different risk assessment studies performed. Technical data is helpful because it provides detailed  and evidence based information about the dredging process.

We believe the following CAG summary quotes demonstrate the complexity of information shared, as well as CAG members technical capacity/ability to understand and perform effective oversight. The 2 sets of quotes shown below are taken from CAG meeting summaries, and display the CAG’s technical capacity and ability to understand and comment upon complex, technical presentations:

* “Risk from fish consumption is the key driver for the remedy...variation in the concentration data – which may be caused by flow conditions (flooding vs. low water conditions), fish-to-fish differences, river activities that resuspend sediments and PCBs, or other natural variance – is sometimes observed.” -EPA report (Oct 30th, 2014)
* “Variability in Concentration Data: CAG members asked what the possible reasons might be for variability in fish concentration data and in particular for spikes in tissue at different times and locations. Mr. Klawinski said spikes could be due to related river activity such as large vessels moving through several times per day. He clarified that spikes would not be caused by the processing facility” -CAG Member (Oct 30th, 2014)

The first quote shown above is an excerpt from an EPA presentation, which revolves around the risk of fish consumption in a contaminated river. They discuss the fact that there is variability in their fish concentration data, and give a number of reasons as to why this is occurring, but no direct answer. The quote below is a CAG member response. You can see that the member immediately asks what the possible reasons for variation may be. The first example displays EPA trying to evade responsibility, and CAG using effective oversight to make sure they are accountable.

Another example of CAGs ability to understand technical information:

* “Joseph Moloughney of the New York State Canal Corporation (NYSCC) presented maps illustrating areas and current channel depth in the Hudson River where NYSCC requires a deeper channel for navigation than currently exists. Shading representing navigational dredging needs was overlain on shading representing areas GE delineated for dredging in Phase 2.”   -NYS Canal Corp. (December 10, 2009)
* “A CAG member asked to be provided with the calculated discrepancy (dredge volume in cubic yards) between GE’s dredging plans and NYSCC’s navigational dredging needs.”      -CAG Member (December 10, 2009)

The first quote above is an excerpt from an NYS Canal Corp presentation. The same type of interaction between presenter and CAG member occurs in the second set of quotes, and once again, portrays effective oversight. We believe the reason that the CAG is capable of doing this type of oversight is due to their longtime involvement, dedication, and thus technical expertise. Active members of CAG are very knowledgable about the details of dredging, and this is why they have the capability to hold the EPA and GE responsible for their actions in the Hudson River PCB Superfund site.

*Expanding the Scope of the Cleanup*

The Record of Decision which GE follows for the cleanup, does not include certain areas of the Hudson which still have PCBs in them. One of these areas is known as the Navigational Channel. A representative we interviewed from Scenic Hudson claimed, “the fact that it was not included in the original remediation was a failure back when it was being negotiated” (Mullarkey, 2015). Individuals began realizing a need for navigational dredging in 2008. Since then, it has been brought up in 68% of the CAG meetings. In a 2009 meeting summary, a member concern was recorded, stating, “there is need for dredging to navigational depths, noting the regular loss of economic development” (CAG Summary 7/16/09).

The group’s desire to expand the scope of the cleanup in this way is once again an example of their ability to put pressure on the EPA and GE to do a good job in properly cleaning the Hudson River. However, it also displays the CAG’s unique ability to push for community interests. Although CAG opinion’s may be biased due to the unequal activity of it’s members, there is still community perspective being represented. This desire for navigational dredging supports economic development in the area, as the CAG member stated. It is also very possible, that a more traditional form of oversight like congress would not push for a community interest like this. Congress is an outside oversight source that just doesn’t have the knowledgeable community perspective that exists in CAG .

*Seek to Involve the Public*

As previously stated, while CAG does have a variety of stakeholders attending the meetings, one of the groups that fails to attend is the public. Despite this, CAG attempts to include the public in other forms. For example, when we attended the CAG meeting on April 23, 2015, the EPA was in the process of reviewing a decommissioning draft created by GE. This draft was created because 2.50 of the 2.65 cubic yards required to be dredged by the ROD, had been removed, and GE was getting prepared to remove their technical equipment from the area. However, additional dredging is still seen as a necessity for these environmental groups. Because of the lack of dredging in the navigational channel, and an additional 136 acres, they would prefer if GE kept the equipment in the vicinity. Environmental groups also wanted to include the public in this process, in order to elongate the review process and to gather public opinion on the topic. In order to achieve this, an environmental group representative asked the EPA representative if the document would be open for public opinion and circulation. When the EPA replied hesitantly, the representative asked for access to the document when the review was finished, so it could be circulated to environmental groups and the public. This kind of action epitomizes the type of oversight that the environmental groups who attend CAG utilize.

Environmental groups also target the public by using both media and social media. Facebook and Twitter are commonly used by different environmental groups in order to educate and update the public on the dredging process. Different media coverage is also commonly present at CAG meetings. For example, the Saratogian commonly goes to the meetings in order to inform local citizens. In addition, there is national coverage for both the Hudson River PCB Cleanup and CAG. Both the New York Times and Times Union have run several stories over the past years, addressing community concerns, and spreading awareness of the project on a national level, in hopes to spark public interest.

*Traditional Forms of Oversight Utilized*

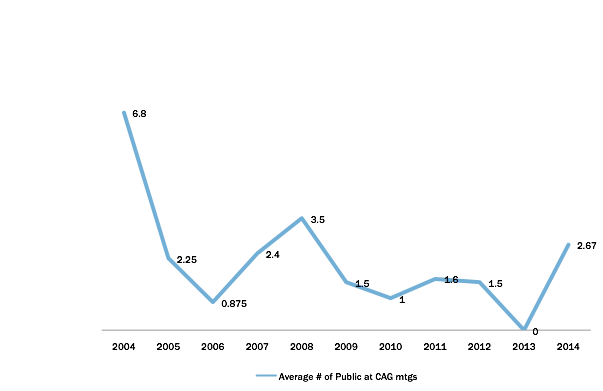
Other methods of traditional oversight used in the Hudson River PCB cleanup process include risk assessment studies, daily site checks of the dredging facilities, and a 24 hour complaint hotline. For example, the NRDA performs a series of risk assessment studies in order to determine the negative effects caused by PCB sediment contamination. These studies focus on how PCBs influence  both human health and environmental health. For example, one of the ways in which the NRDA is measuring PCB influence is by studying the mink population in the Hudson region. Once the study is completed, the NRDA can add it to the case that they are preparing, which could help them if they decide to take GE to court to clean more contaminated areas in the Hudson River that are not in the original record of decision.

Additionally, the EPA inspects dredging sites along the 40 mile stretch almost daily to make sure that engineers are making progress and all equipment is up to date (Romanowsky, 2015). These site checks ensure that GE is following through with the ROD and cleaning the appropriate areas of the Hudson River in a timely manner. There is also a hotline created by GE, in order to allow the public to voice concerns pertaining to the project. Most of these concerns are minor, and usually involve noise, smell, or lighting of the project. While this type of oversight has proven to be successful in addressing these minor concerns, in the grand scheme of the project there is no larger impact.

*CAG Compared to Traditional Oversight*

Traditional methods of oversight include congressional hearings, media, and public involvement. Congressional hearings rely on elected officials to oversee the cleanup process and hold them responsible for making sure issues are being properly addressed. However, congress as an oversight body is not always effective because elected officials tend to be very busy and may not prioritize environmental issues as a concern. However, CAG members have the dedication, time and knowledge to commit to a project of such high magnitude. As a result, relying solely on traditional methods of oversight may not be as effective.

The media is another method of traditional oversight. Media, such as newspaper articles or radio messages, cover stories related to the dredging process to inform people about what is going on. This puts pressure on GE and the EPA to do a good job in the cleanup process because they do not want bad publicity. There have been a number of media stories in The Saratogian, Times Union, and the New York Times. However, media coverage alone would not be able to pressure GE and the EPA to expand the scope of the dredging process as various CAG members have done.

Public involvement is another form of traditional oversight utilized in the past. However, the public has generally not been an effective form of oversight in the Hudson River PCB Cleanup. We believe that there are a few contributing factors to lack of public involvement. First, CAG meetings are at an incredibly inconvenient time. These meetings, as previously stated, are held midday on Thursday, which do not allow the general public to attend, due to their own working schedules. As a result, there is little public attendance at CAG meetings (Graph 2).

Graph 1: Attendance of CAG members over the years

While public attendance was relatively high in the first year of CAG, it quickly wavered off. This is likely because of the the longevity of the project, and the amount of time and commitment it would take to stay involved. As Graph 1 illustrates, CAG attendance has declined greatly since the project has started, which would make it difficult for the public to affect any significant change in the cleanup process.

**Conclusion and Recommendations**

Overall, despite CAGs limitations, we believe that it is one of the most effective types of oversight utilized in the case of the Hudson PCB Cleanup. CAG has pushed the initiatives of the cleanup forward, and has challenged both GE and the EPA on the effectiveness of the cleanup in ways that traditional oversight would not have been able. There have been zero congressional hearings regarding the cleanup, some media coverage, and little public involvement. While CAG is a group of unelected and biased stakeholders  they have been able to improve the cleanup, and involve local stakeholders successfully.

Because of CAGs effectiveness in this cleanup, we believe that it should become a more integrated part of the environmental cleanup process, and should be more widely utilized in cleanups throughout the nation. There is also a large possibility that another CAG will be created in the Hudson River PCB Superfund site, for the restoration phase. We have a number of recommendations that we believe could improve this new CAG. For example, in order to involve the public more it would be helpful to change the CAG meeting time. We believe that by changing the meeting times from midday on Thursday to a time where the public would be more able to attend, such as a weekend, would increase public involvement. We also would suggest that people continuing our study should interview public attendees on why they do not regularly go to CAG meetings, and how EPA and GE can address this issue.

An example of a future study that could be done pertaining to CAG is to compare and contrast how different CAGs for other Superfund sites work and get a better understanding of what works well and what does not work well. We believe that by further illuminating the different strengths and weaknesses of CAG, future formations of CAG can run as a more effective form of oversight.

**References**

Benaman, Jennifer. 2014.  Hudson Dredging Project Engineer. Interview.Skidmore College, Saratoga Springs, NY.

Caparini, Marina. (2004). Media and the Security Sector: Oversight and Accountability. Geneva Centre for the Democratic Control of Armed Forces. pp 1-35.

Charnley, S. Engelbert, B. (2005). Evaluating public participation in environmental decision-making: EPA’s superfund community involvement program.

Chess, C. Purcell, K. (1999). Public Participation and the Environment: Do We Know What Works? Environmental Science and Technology. Vol. 33(16) pp. 2685-2690.

Community Advisory Committee Summary. July 16th 2009. Accessed February 20, 2015 at: <http://www.hudsoncag.ene.com/files/HudsonCAGNotes_July09.pdf>.

Community Advisory Committee Summary. December 10, 2009. Accessed February 20, 2015 at: <http://www.hudsoncag.ene.com/files/HudsonCAGNotes_Dec09.pdf>.

Community Advisory Committee Summary. June 28 2012. Accessed February 20, 2015 at: <http://www.hudsoncag.ene.com/files/MeetingSummary_Jun2012.pdf>.

Community Advisory Committee Summary. October 30th, 2014. Accessed February 20, 2015 at:<http://www.hudsoncag.ene.com/files/HudsonCAG_Notes_Oct%202014.pdf>.

Environmental Protection Agency Website (EPA). Community Participation in Environmental Decision-Making Process: Can It Reduce Disproportionate Impact? Accessed November 4, 2014. Available at:<http://www.epa.gov/ncer/events/calendar/2010/mar17/abstracts/communitycapacity.pdf>.

Environmental Protection Agency Website (EPA). Superfund: Success in Forging Partnerships. Retrieved from: http://www.epa.gov/superfund/accomp/17yrrept/report5.htm

Environmental Protection Agency Website (EPA). What are PCBs? Accessed November 4, 2014. Available at:<http://www.epa.gov/housatonic/understandingpcbrisks.html#WhatArePCBs>.

Jahn, Kathryn. 2015. NRDA representative. Interview. Skidmore College, Saratoga

Springs, NY.

Environmental Protection Agency Website (EPA). Community Advisory Group (CAG) Accessed November 4, 2014. Avalable at: <http://www.epa.gov/superfund/community/cag/>.

Estabrook, B. (2011). How gas drilling contaminates your food. Accessed April 24, 2015 at: <http://www.salon.com/2011/05/18/fracking_food_supply/>.

Greene, Manna Jo. 2015. Clearwater representative. Interview. Skidmore College, Saratoga Spring, NY.

Lyons, B. (2014). Times Union. Dredging up the truth. Accessed May 1st, 2015 at: <http://www.timesunion.com/local/article/Dredging-up-the-truth-5294643.php#page-1>

Mank, Bradford. 1993. Superfund Contractors and Agency Capture. University of Cincinnati College of Law Scholarship and Publications.

Morgan, K., Stegner, G. (2011). How Clean is Clean? Stakeholders and Consensus-Building at the Fernald Uranium Plant. Stakeholders and Scientists: Achieving Implementable Solutions to Energy and Environmental Issues. pp 64-87.

Mullarky, Althea. Scenic Hudson Political Analyst. Interview. Saratoga Springs, NY.

Nolan, C. (2014). More Perfect Oversight: Intelligence Oversight and Reform. Terrorism, Homeland Security, Strategy. Accessed May 3, 2014 at: <http://www.academia.edu/6191228/More_Perfect_Oversight_Intelligence_Oversight_and_Reform>.

Romanowski, Larissa. EPA Region 2 Community Involvement Coordinator. Interview. Hudson Falls, NY.

Steiner, R. (2011). Models of Public Oversight of Government and Industry. Accessed April 20, 2015 at: <http://cmsdata.iucn.org/downloads/citizens_advisory_councils_rick_steiner.pdf>.