Narrative Frames and Settings in Policy Narratives

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A unique aspect of the Narrative Policy Framework (NPF) is that it holds in the balance a social construction ontology with an objective epistemology. According to the NPF, policy realities are socially constructed through a particular perspective in a narrative, and our understanding of how these narratives operate in the policy space can be measured empirically through narrative elements and strategies (Shanahan, Jones, McBeth, and Radaelli, 2017). The NPF contends that empirically understanding the social construction of policy realities sheds light on enduring policy process questions such as why policy arenas remain intractable, how coalition learning and coordination occurs, and, ultimately, how and under what conditions policies change.

To address these broad research inquiries, much of the previous NPF research has focused on singular narrative elements such as characters (e.g., Weible, Olofsson, Costie, Katz, and Heikkila, 2016) and plot (e.g., Shanahan, Jones, McBeth, and Lane, 2013) as well as the narrative strategies of causal mechanism (e.g., Shanahan, Adams, Jones, and McBeth, 2014), distribution of costs and benefits (e.g., McBeth, Shanahan, Arnell, and Hathaway, 2007) and policy beliefs (Shanahan, Jones, and McBeth, 2011). Importantly, these elements and strategies have been generally studied as isolates; the next generation of NPF scholarship is beginning to explore how these narrative components array within the story, to proffer a particular policy perspective. What has not been studied or specified is the role of the narrative element *settings* in shaping the realities constructed in policy narratives, particularly with how characters array in different settings and how settings are situated within frames. By focusing on the nested nature of characters, settings, and frames, this study aims to reveal the dynamic workings of narratives in the policy terrain.

Why settings? Settings literally *are* the perspective given to an audience, whether a broad legalistic backdrop (e.g., a statute or Constitution), an aerial regional view (e.g., a map), or a ground-level geographic place (e.g., a landmark or house). Policy scholars (e.g., Weible 2014) often herald the import of *context* in understanding policy processes; we argue that a setting is the narrative interpretation of policy context. The policy context may include a particular geographic and/or political realm, but a narrative setting provides a particular viewpoint of this context. Such a backdrop delimits what the audience experiences of the narrative, whether the setting is micro (in a room) or macro (aerial view). In turn, settings come alive through the action of the characters. Thus, not only understanding and operationalizing settings, but also linking two narrative elements—characters and settings—are new steps in NPF research.

Why frames? How frames operate in or around narratives has been an issue over which NPF architects have puzzled. Functionally, frames and narratives have similar meaning-making cognitive processes (Jones and Song, 2014) and both shape people's opinions about policy issues. Crow and Lawlor (2016) add that frames form the central organizing idea and turn facts into a story by selecting and emphasizing some attributes over others, as other framing and policy scholars note (e.g., Stone 2012; McCombs and Ghanem, 2001; Gamson and Madigliani, 1989; Druckman, 2001a). Thus, frames are important and shape the parameters in which narratives unfold. However, are there multiple narratives within one frame? Are divergent narratives housed within the same frame? Does one narrator use multiple frames? Answering these questions will help to shed light on the import of narratives in the context of frames.

Finally, the NPF has been used to analyze myriad policy issues (e.g., climate change, health, energy, wildlife management), but hazard policy has been investigated less than other policy realms. Decision makers involved with hazard mitigation may hold different social

constructions of hazards, thereby offering perhaps divergent policy narratives on risk to their communities. Because hazards are place-based, understanding the settings in policy narratives may shed light on the different social constructions of the hazard. Understanding which narrative settings are situated in what frames will shed light on how these two powerful meaning-making processes synchronize. In this study of flood hazards on the Yellowstone River in Montana, we analyze settings, replete with characters and policy solutions, to understand if policy flood hazard narratives vary and, in turn, how they may vary—by administrative position or by location along the River.

We begin by briefly describing the Narrative Policy Framework and the narrative element settings, in particular. We then proceed to examining how settings have been described and studied in narratology, the theoretical parent of the NPF. We move on to discuss frames, narratives, and settings in policy narratives. Subsequently, we describe our case study, followed by our methodology, findings, and conclusion.

The Narrative Policy Framework

The Narrative Policy Framework contends that narratives are a powerful component of public policy processes and that policy narratives can be empirically studied across different policy issues at multiple levels of analysis (Jones, Shanahan, and McBeth, 2014). The NPF (Jones and McBeth, 2010; McBeth, Jones, and Shanahan, 2014; Shanahan et al., 2017) conceives of narratives in terms of narrative form (structure) and content (subject matter). Narrative form refers to scaffold or structural elements that can be identified and observed in narratives across different policy contexts: characters, settings, plot, and policy solution or moral. Narrative content is the unique subject of the policy at hand; however, the NPF addresses this narrative relativity by studying the policy beliefs and narrative strategies appearing in different policy

narratives. As such, the strategy and belief systems underlying the content may be empirically examined across policy terrains. For policy beliefs, the NPF relies on imported, empirically based theories, like Cultural Cognition, to measure this type of generalized content (e.g., Ripberger, Gupta, Silva, and Jenkins-Smith, 2014). NPF also considers that some characteristics of narrative content is specific to the context at hand: the named characters, the actual policy solution, etc. Identifying and analyzing these contextual variables is significant for NPF researchers seeking to understand the narrative variation between individuals, groups, and communities.

How do narratives work? Narratives both reflect and shape our understanding of the world (Shanahan, Jones, and McBeth, 2015). The NPF contends that narratives are both internally held and externally communicated. Internally, narrative is the mind's preferred method for organizing perceptions, memories, and explanations about the world (Berinsky and Kinder, 2006; Jones and Song, 2014; Lodge and Taber, 2013). Externally, narrative is a powerful communication tool, a device used across groups and contexts (Shanahan et al., 2013). External narratives are shared by people to teach and anchor identities, norms, and beliefs.

The NPF theorizes that narratives operate on three different, though inter-related, levels: micro, meso, and macro (McBeth et al., 2014). Because this study focuses on individual narrative construction, our unit of analysis resides at the micro level. Micro level hypotheses identify key narrative concepts that shape individual perceptions: narrative breach, narrative transportation, the power of characters, and narrative congruence. People are more receptive to policy narratives that seem congruent to their own world (Jones and McBeth, 2010; Lybecker, McBeth, and Kusko, 2013; Jones and Song, 2014; Shanahan et al., 2011). In other words, the more a narrative appears to take place in a world populated with recognizable characters and

looks and functions similarly to the world of the audience, the more engaging that story will be. Narrative transportation occurs when the audience disengages from their surroundings and becomes immersed in the narrative; stories with higher narrative transport are more persuasive (Jones and McBeth, 2010; Jones, 2014). People also tend to remember unique narratives, or ones that deviate from the status quo to some degree, which is described as narrative breach (Jones and McBeth, 2010).

The NPF and Settings

The NPF imported structural elements of narratives from narratology scholarship (see Jones and McBeth, 2010) into the study of policy narratives. Along with characters, plot, and policy solutions, the NPF has identified settings as one of the important structural elements. Settings are proposed to be observed, measured, and analyzed across policy contexts. The NPF describes settings thusly:

> "Policy narratives always have something to do with policy problems and are situated in specific policy contexts. As such, the setting of a policy narrative consists of policy phenomena such as legal and constitutional parameters, geography, evidence, economic conditions, norms, or other features that some nontrivial amount of policy actors agree or assert are consequential within a particular policy area. Like a stage setting for a theatrical play, the props (e.g., laws, evidence, geography) are often taken for granted, but—at times—also may become contested or the focal point of the policy narrative." (Shanahan et al., 2017)

From this definition, settings broadly include the larger socio-political conditions surrounding the policy problem at issue, as well as more concrete elements or "props." Only a few NPF scholars (e.g., Ney, 2014) have explored the dimensions and impacts of settings on the policy narrative, but settings have not, as of yet, been a major focal point of inquiry. Nevertheless, the NPF studies that analyzed aspects of settings have yielded some pertinent insights for this analysis. In linking meso and macro levels, Ney (2014) finds that settings are institutional, defined mostly by federal and jurisdictional boundaries. He describes the macro-

level created institutional space in which the meso-level narrative occurs/plays out. The idea of embedded or linked settings is an important concept, and one that is supported by the framing and narratology literature discussed later in this review. In a recent qualitative NPF analysis, Gray and Jones (2016) define the setting of elite campaign finance narratives as "the physical, ideational, and discursive space in which regulation takes place" (p. 203). This operational definition, while appropriate for their specific policy issue, would fall short in policy subsystems in which the legalities of the policy issue at hand are unknown to the characters or narrator.

Although settings have not been an NPF research priority thus far, they are nonetheless purported to be a fundamental component of policy narratives (e.g., Jones and McBeth, 2010; McBeth et al., 2014; Shanahan et al., 2017). Intuitively, a good story seems to include a place and time in which the action takes place, but this assumption should be examined critically. In other words, do settings actually matter in policy narratives? And if so, why? NPF and related literatures, including the mass media framing research and narratology scholarship, suggest four answers to these questions.

First, settings are critical for understanding the story as a whole, as according to some narratology scholars, settings create the space for the characters and policies to interact meaningfully. For example, Herman (2004; 2009) finds that whether a storyworld is evoked implicitly or explicitly, a setting is a common feature to all narratives because it brings together characters and dramatic events of the plot. This mental mapping of a storyworld is more than just a storytelling tool to move the plot along, though; it is also an important cognitive process for understanding narratives (Ryan, 2003; Herman, 2009). Herman (2004) further explains that storyworlds bring out the intended meanings of narratives (this point is explored later in our analysis of frames and multiple scenes). In this sense, storyworld creation is not just a

superfluous flourish, it is critical for narrative comprehension and retention. Stage setting is not always the most obvious part of the narrative, but even at its most subtle, it is part of *a priori* sensemaking or the automatic process an audience undertakes to determine if a story comports with the world they know. If these narratology concepts hold true, settings contribute to a policy narrative's transportation and congruence and, therefore, to a narrative's relative persuasiveness and resonance (Jones and McBeth, 2010; Jones, 2014). Narrative transportation can only happen if there is a narrative world into which one *can* be transported. Additionally, the reader can only determine if that world is indeed congruous with their own after a narrative evokes world creation. Either of these actions would be impossible without a mental worldmap conjured through settings. The probability of narrative breach is also enhanced with the creation of a robust storyworld. Herman (2011) finds that the plot of the story advances when the world the characters inhabit is disrupted in some sense. This idea is analogous to the NPF's description of narrative breach, wherein the *status quo* is evoked but then violated in some memorable way.

Second, settings may not be required *per se*, but narratives without a setting have a short shelf life. Another way of examining the function of settings is to start from the question "Can policy narratives exist *without* settings?" In theory, narratives can subsist on just one character and one policy issue, i.e., the public problem at hand or the policy solution (Shanahan et al., 2013; Crow and Berggren, 2014). However, NPF research (McBeth, Shanahan, Anderson, and Rose, 2012) shows that more robust stories, as measured by the index of narrativity, engender correspondingly more breach and transport. Narratology researchers have also searched for the most simple story iteration to illustrate the bare necessities of story mechanics, and an oft-cited example is E.M. Forester's "The King died, and then the Queen died of grief" (Genette, 1988, p. 20). Because the story describes a moment of change (a plot), the narrative exists, however basic

(Genette, 1988). And yet, it is also true that people enjoy, remember, and are affected by more complex stories. Our favorite novels or movies are typically more intricate in terms of characterization, plot, and setting. The aforementioned concepts of transport, breach, and congruity support this argument. So, while policy narratives may exist without settings, those stories are typically weak, not as convincing or memorable. A more robust narrative with the potential of higher salience would include all four elements of policy narratives, including a well-developed setting.

Third, settings contribute to a narrative's legitimacy and therefore to the legitimacy of the preferred policy choice within the narrative. Edelman's (1985) seminal work on framing theory includes an in-depth look at the function of settings within political frames; although frames and narratives are not synonymous, Edelman's analysis applies equally to settings within narratives. He argues that settings must be logically consistent with the actions, events, and characters within a frame because this adds legitimacy to the policy solutions advocated by the frame. For instance, when a judge issues a ruling inside a courtroom, the courtroom setting provides important context for that ruling. If the same judge issued the same ruling in a supermarket, that action would no longer carry the same weight of law or legitimacy (Edelman, 1985, p. 95 – 96). Edelman's observation reflects the NPF concept of congruity, adding to the hypothesis. When a major inconsistency between events and settings exists, the narrative's "spell" is broken because the argument or narrative does not seem to belong to the listener's world defined by the rules of logic. But beyond breaking the spell, incongruity of the policy issue described damages the narrative's intended impact of advancing a particular solution.

Finally, policy is inherently and inextricably linked with real places and times and is thus expressed through settings in congruous policy narratives. This concept is suggested by the

preceding arguments but merits further explanation. For jurisdictional and logistical reasons, policymakers are tasked with devising rules, regulations, and incentives that apply to specific places at specific times. As is suggested by the congruity hypothesis, policy narratives are convincing because the story describes real-world conditions. The problem takes place in a real community, and people are suffering the consequences of that problem today. The policy solution could take place in the foreseeable future and make an impact in the real world. A context-free narrative or a narrative with a far-flung setting (like a Mars colony 1,0000 years in the future) would not have the same impact as a narrative that takes place closer to home. Nor is it likely that such a narrative would reside in someone's mind as a way to organize and contextualize current, real-world policy conditions. Thus, because policy is attached to real-world situations, so too are policy narratives via settings.

Narratology and Narrative Policy Settings

Narratology is a literary theoretical approach to studying narratives and is traditionally concerned with the universal elements of narratives (Genette, 1983; Chatman, 1978; Prince, 1982; Herman, Jahn, and Ryan, 2005, 571 - 576). Classical narratology theories find consistent structural elements in narratives across various contexts; this particular finding shaped much of the NPF's approach to narrative form and content. Chatman (1978) argues that a narrative has two elements: an *histoire* (or chain of events plus existents, like characters and settings) and a *discours* (or the communication of the story). Existents, like settings, are common to narratives even though the specifics of each existent in a particular narrative are unique.

Settings have been a challenging concept for narratology. Researchers widely assert that settings consist of space and time (Prince, 1982; Herman et al., 2005). However, the field has generally focused more attention on the "time" element than on "space," and even less focus has

been on settings, or the combination of time and space (Herman et al., 2005). Two explanations emerge for this lesser focus. First, the boundaries of space are more difficult to ascertain than the boundaries of characters or events. As Phelan and Rabinowitz state, "Setting has a tendency to spread out from geographical space to the objects within it until it becomes synonymous with background in the broadest sense" (2012, p. 75). Additionally, spatial description can be sparse and still effective (Ronen, 1986); in fact, too much spatial description is often a drag on the story (Prince, 1982; Herman et al., 2005, p. 551). Finally, until the 20th century, settings typically served as nothing more than a backdrop for a narrative; the elements of setting did little to influence the plot or communicate important themes to the audience. Around the turn of the 20th century, settings began to play more of a role in narratives, and this shift is described as the "spatial turn" (Hess-Lüttich, 2012; Herman et al., 2005, p. 551). After the spatial turn, settings became complex and influential, eventually drawing the interest of literary scholars.

Narratologists find that settings now serve a variety of functions, fading in and out of the background and foreground. The mimetic function is a realistic description that asserts the narrative's connection to the real world (Phelan and Rabinowitz, 2012; Phelan, 1989). The setting can also serve as a metaphor for important themes or serve as the vehicle to synthesize various plot lines (Phelan and Rabinowitz, 2012). Elements of a setting can suddenly spring forth, limiting a character's actions, driving plot changes, or defining the possibilities of events, in either overt or innocuous ways.

At their most basic, settings are the environments in which characters exist and interact with one another (Herman et al., 2005). What characterizes a setting are its boundaries, the contained props (or objects), and the accompanying temporal dimensions (Herman, et al., 2005). Narratologists have conceptualized this tendency toward multiple settings in a couple different

ways. In some instances, settings are situated within one another; the setting of a house is situated in the larger community setting, and so on, as far as the narrative expands. So, for example, a single character may have a scene in the house and then, within the same narrative, move to a space outside the house. A less obvious example of nesting is embedded narratives in which there exists a "story within a story" (Fludernik, 2009, p. 28 - 29). For instance, when a character recounts a story, that narrative is thus embedded in the larger narrative. These storytelling conventions have been documented around the world and in very diverse cultures, attesting to their universality (Herman et al., 2005, p. 88 – 92, 134). The concept of settings within settings overlaps with the narratology terms of "framing" and "focalization" (Prince, 2003). However, as these terms are used differently in the policy framing literature, this analysis will keep to the overarching term of "embedding" for clarity's sake.

Various settings can link in other ways aside from embedding (Prince, 1982). In a novel or movie, seemingly unrelated scenes, complete with separate characters and separate settings, can all come together in the end. In Ronen's (1986) research on space and the spatial dimension in fiction, she explains that all the various places in a narrative (the various settings) are inherently linked to one another through the logic of the narrative frame. She writes that "all situations located in a frame in discontinuous text-segments are integrated, revealing their common denominator" (p. 434). This common denominator may be a theme, or these various elements may serve the same function in various plot strands (Phelan and Rabinowitz, 2012; Prince, 1982; Fludernik, 2009, p. 46). The same space can often bring together multiple plots by simply being the stage on which many different characters interact at different times, which is quite common in a play (Prince, 1982).

The presentation and description of a space is as important in narratology as the characteristics of the setting itself. Considering the practically infinite possibilities of focalization within a scene and the infeasibility and undesirability of describing any setting in exhaustive detail, the elements chosen by the narrator to describe a setting are exceptionally meaningful (Prince, 1982). *Thus, the choice of settings and the way they are described cannot be neutral* (Edelman, 1985; Duncan, 1953, p. 96). Some narratologists have focused on the semiotic distinctions in spatial descriptions that reveal a common denominator of theme or plot (Hess-Lüttich, 2012). For instance, a river bank can be described in terms of being private property or public property, and these culturally relevant distinctions (public/private, feminine/masculine, etc.) can carry a lot of significance for the narrative (Hess-Lüttich, 2012). Alternate literary perspectives in narratology theory explore the significance of how a space is described, and this research may be of interest to other NPF researchers seeking to more fully explore the spatial dimension of policy narratives.

Moving from the strictly spatial aspects of settings into temporal characteristics is somewhat trickier. In narratology, there are several ways to think about time including: time as the characters experience it in the narrative; time in terms of the period in which the narrative is set; and time in terms of narrative ordering (or how the story is being told). We focus primarily on the first conceptualization of time for a few reasons. Although the narrated order of events is pertinent in most storytelling modes (Genette, 1988), this is only relevant in a constructed narrative or an oral history recounted without the prompting of an interviewer. Additionally, an identifiable time period is not always present in narratives and certainly does not play as big a role in policy narratives, which are typically set close to the present day. However, the fact that

time passes in the narrative world is a critical defining feature of narratives and is an idea that the NPF has adopted via the inclusion of plot in core structural elements.

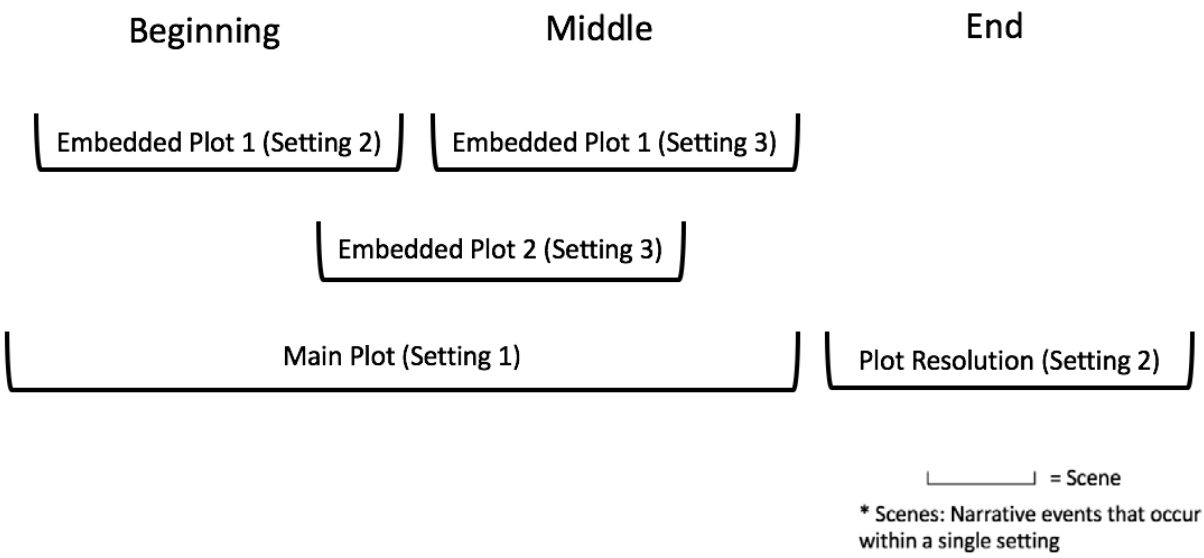
According to Genette (1988), transformation is a necessary condition of narratives and requires the passage of time within the story. He writes, "For me, as soon as there is an action or an event, even a single one, there is a story because there is a transformation, a transition from an earlier state to a later and resultant state" (p. 19). This transformation over time is another way to describe plot, and for structural narratologists, it is the key distinction between narratives and other forms of communication (Prince, 1988; Chatman, 1978; Phelan, 1989). This transition between states can be fairly simple, from the normal state of affairs to a different state after an event (a disruption of situatedness) (Herman, 2011). Of course, not all events recounted over a span of time have a plot, but because people are natural storytellers (or *homo narrans*) (Herman, 2009; Lodge and Taber, 2013; Jones et al., 2014), stringing a series of events into a plot is easy and almost automatic. When historical events are recounted with a plot format (typically with a beginning, middle, and end), this is called emplotment (Herman et al., 2005, p. 137).

Even though most narrative plots have an identifiable beginning, middle, and end (Prince, 1982), the passage of time within the story can be understood in other ways. Herman (2004) has described polychronic narration, which is a three-value system that includes earlier, later, and indeterminate states. In a spoken narrative, the various states may be described out of order, but that is separate from the arrangement of events as the characters would experience them chronologically (Genette, 1983). Regardless of how the various states are described, the crucial component of plot is that two or more states exist within one narrative. Thus, narratives depend on plots, and plots require the passage of time[1].

[1] This is almost a universally shared assumption within structural narratology, but some narratologists argue that plots are not universal, see Fludernik (2009).

The idea of multiple scenes, states, and plots within one narrative can quickly become overwhelming for the structural analyst. However, for the NPF, three pertinent ideas rise to the surface. One is that both vertical and horizontal arrangements of settings are possible if there are multiple scenes (Fludernik, 2009, p. 29). This is a function of embeddedness, simultaneity, and emplotment. Scenes or states can be also arranged one after the other as time progresses (a horizontal arrangement). Additionally, if multiple plotlines happen simultaneously, those scenes are stacked vertically. A diagram of plot arrangements is a useful representation of these ideas:

Figure 1. Narrative Arrangements of Plots, Scenes*, and Settings



Frames and Narratives

Policy narratives are related to and are quite similar to frames in political discourse, so much so that the two concepts are often mistakenly conflated. A close review of the framing literatures' defining theories reveals whether frames and narratives are compatible with one another and, if so, what relationship exists between these two concepts.

Although the idea of framing had been used in communications research for a while, Entman's (1993) definition of frames in the mass communications literature laid the groundwork

for a more precise understanding and working definitions of frames. Generally, framing involves "[s]electing and highlighting some facets of events or issues, and making connections among them so as to promote a particular interpretation, evaluation and/or solution" (Entman, 2004, p. 5). Frames, then, function to provide an interpretation an issue; some issue elements are highlighted and some are omitted. To Entman (1993), what is de-emphasized or excluded from a frame is just as important as what is included and emphasized. An issue can be framed in many different ways. In a democracy, competing frames typically emerge in any policy debate.

Entman (1993, p. 52) argues that frames exist at four points in the communications process: within the communicator, in text, within the receiver, and in the culture. These different locations imply that framing is both an internal mental process and a communicative process. A useful distinction in the policy framing literature describes *frames in thought* and *frames in communication* (Druckman, 2001b). The latter, frames in communication, are constructed with the intention of persuasion or explanation. Frames in thought, on the other hand, describes a person's perception of an issue, specifically which elements and facts are deemed relevant or important. When a frame in communication affects a frame in thought, Druckman (2001b) describes this as a framing effect. This understanding is analogous to the NPF's ideas that narratives are an internal cognitive process as well as a communication tool and that these two types of narrative influence and interact with one another.

Because elites can use frames and the framing process to manipulate publics (Entman and Rojecki, 1993), frames are sometimes viewed in a pejorative light; however, this is an incomplete impression (Druckman 2001a, 2001b). To be sure, the act of cognitive framing, seeking out frames, and responding to certain frames is an automatic, unconscious process (Lakoff, 2008; Druckman and McDermott, 2008; Chong, 1993). However, people are not

susceptible to just any frame. Audiences are more persuaded by frames from trusted sources (Druckman, 2001b) and frames that correspond to their social reality (Westen, 2007). Furthermore, people also actively seek out or create frames to categorize and analyze complex issues (Goffman, 1974), and this is a useful behavior because it makes evaluations more efficient and simple (Kahneman and Tversky, 1984; Berinksy and Kinder, 2006). Most framing researchers find that frames do not create new beliefs in people but rather trigger existing beliefs, values, and memories in ways that support the frame's message (Chong, 1993; Nelson, 2004; Nelson and Kinder, 1996; Edelman, 1985; Druckman, 2001a).

How frames work is an interesting and ongoing source of inquiry. A frame may go beyond problem definition by also including moral judgements, potential winners and losers, and even possible solutions (Entman, 1993; Nelson and Kinder, 1996; Schön and Rein, 1994; Stone, 2012). Framing effects vary according to a number of factors, including the perceived credibility of the framer (Druckman, 2001a), the emotional state of the audience (Slovic, Finucane, Peters, and MacGregor, 2004; Druckman and McDermott, 2008), the audience's previous experience with the issue at hand (Chong and Druckman, 2007), the frame's strength (Chong and Druckman, 2007), and whether a frame comports with a person's underlying belief systems or ideological orientation (Taber and Lodge, 2006). Framing effects are not just an interesting research topic. How an issue is framed can dramatically affect how a problem is perceived and if it should be considered a public policy issue at all (Edelman, 1985; Druckman, 2004; Stone, 2012).

But frames cannot and do not operate on their own; frames can only be understood or communicated via tools that connect the various elements included in a frame in a meaningful way. Frames are made manifest through various methods or framing techniques, and narratives

are one of those methods (Crow and Lawlor, 2016; McComas and Shanahan, 1999; Stone, 2012; McBeth, Lybecker, and Garner, 2010; Heikilla et al., 2014). In addition to narratives, frames can be communicated by selective exposure to reports, articles, or statements that advocate a certain interpretation of an issue (Chong and Druckman, 2007; Merry, 2015). Thus, in the policy literature, a frame is a fairly general concept and a number of communication techniques can accomplish the framing function.

Some framing scholars have concluded that frames and narratives are therefore synonymous (Guber and Bosso, 2012). This conclusion does not comport with the framing and narratology literature for two major reasons and is therefore not accepted by the NPF. First, most early and prominent framing theorists posited that frames are a more general concept in which language is used to selectively highlight, interpret, and define an event or state of affairs (Goffman, 1974; Entman, 1993; Edelman, 1985). However, while frames and narratives may function similarly with regard to cognition (shaping opinions), narratives have distinguishing structural characteristics absent from frames. Frames are created from decidedly non-narrative components like slogans, metaphors, historical references (Gamson and Modigliani, 1989) or images (Nelson and Kinder, 1996; Gamson, Croteau, Hoynes, and Sasson, 1992) and do not meet minimum conditions of narrative to have one character and a policy preference or judgement (Shanahan et al., 2013). Second, although the concept of time is not well explored in the NPF (only briefly through plot), narratology scholars (e.g., Genette 1983) and some policy scholars (e.g., Merry, 2015; McComas and Shanahan, 1999) land on time as a critical element of narrative that is intrinsically tied to plot and transformation. Frames do not embody temporality and are thusly distinguished from narratives.

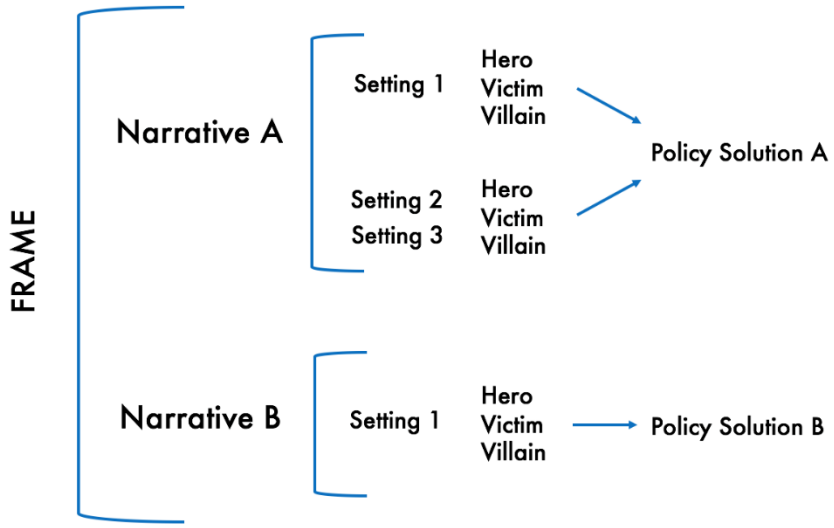
Narratives also typically fall within one frame or another. For example, the role of the media in political life could be discussed as the watchdog of government; such a frame is one of social and public responsibility and advocates for the support of a free press. On the other hand, the role of the media in political life could be discussed as ideological and polarizing; such a frame is one that casts doubt on the veracity of "facts" and advocates for listening to different sources of information. There is thus a "Free Press" frame and a "Conspiracy" frame. A variety of narratives could be constructed that comport with these broad, thematic frames. In this vein, NPF scholars McBeth et al. (2010) use the approach of building narratives from specific frames to test which frames are more persuasive.

Frames have their own organizing logic or organizing principles (i.e., what to include and what to exclude), and the included elements point to a particular interpretation of a policy issue. Narratives that fall under a particular frame will thus share that frame's organizing logic. From the aforementioned media example, a narrative in the Free Press frame will have characters, plot, and a setting that bolster these social and public responsibility concerns. Identifying the frame is an especially useful technique for categorizing multiple events that belong to one narrative. In these cases, settings can be a particularly useful key for finding frames. Narratology scholar Ronen (1986) finds that the connection between various scenes (events with different settings) can be determined by analyzing each scene's underlying theme; this underlying theme is the thread between sometimes apparently disparate story pieces. Likewise, Herman (2009) finds that the underlying themes in settings oftentimes reveal a story's meaning, which corresponds to the frame. Thus, settings are a clue to frames, and when frames are identified, one can better determine the various plot strands that belong to a single narrative.

If settings or frames are too loosely defined, these concepts may appear synonymous with

each other. However, given the more precise definitions reviewed in this analysis, these ideas are decisively distinct from one another. A frame is an interpretation of an issue (Nelson, 2004) and is often identified broadly by its chief value concern (e.g., free speech rights, voting rights) or general subject matter (e.g., economics, gun control). While the manifestations of a frame sometimes also extend further, the general interpretation of an issue alone is not robust enough to meet the definition of a narrative setting (McBeth et al., 2014). Of course, settings are constructed and described in ways that comport with the organizing principles of the overall frame (for example, a frame highlighting First Amendment rights in the US probably would not have a narrative setting in Antarctica). However, the ability to coordinate these narrative and frame components does not make them synonymous concepts.

Figure 2. Example arrangement of frames, narratives, settings, and characters



Policy Issue: Flood Hazard Preparation on the Yellowstone River

Flood preparation along the Yellowstone River in Montana is a complicated endeavor for local communities and policy solutions to address this complexity are myriad. The Yellowstone

River, which runs from Yellowstone National Park across southern Montana to join the Missouri River in North Dakota, is the longest free-flowing river[2] in the contiguous US (Yellowstone River Council). As such, the River is far less centralized than most other large rivers. The channels of the Yellowstone change from year to year, sometimes quite drastically, leaving some channels dry, scouring the bottom of other channels, and eroding banks by sometimes hundreds of feet (U.S. Army Corps of Engineers and Yellowstone River Conservation District Council, 2015). Additionally, the river flow/volume itself is significantly affected by climatological and meteorological conditions such as snowmelt, rainfall, and droughts (Montana DNRC, 2014).

Despite these variabilities, the Yellowstone experiences flooding in somewhat regular, yearly patterns. Flooding due to rain and rapid snowmelt is common in May; these kinds of floods are a bit more predictable. Spring ice jams can also cause flooding along the Yellowstone and are common in certain areas due to geographic features and river infrastructure. The first type of flooding tends to be a more serious problem in the western part of the river; ice jam flooding is more problematic for eastern Yellowstone communities (NOAA).

Altogether though, the Yellowstone is less predictable than typical US rivers, making flood preparation in riverside communities a complex and ongoing challenge for local decision makers. Climate change further compounds these conditions and as decision makers look forward, they can expect to encounter even more unpredictability (Milly, Wetherald, Dunne and Delworth, 2002). Flooding has major environmental, financial, agricultural, and social impacts for Montana; in 2011, flooding caused over $55 million in damages to public infrastructure and private property (Montana DNRC, 2012).

[2] Calling the Yellowstone river "undammed" is a source of some controversy, as the Yellowstone River does have several "weirs" that serve as mini-dams for irrigation purposes (see Palmer, 2004).

On the Yellowstone, some common flood control tactics are either prohibited by law or have been successfully challenged in court, including dams and excessive armoring (U.S. Army Corps of Engineers and Yellowstone River Conservation District Council, 2015). Other flood control measures are not explicitly disallowed but are socially frowned upon for impeding the river's scenic, ecological and economic value (U.S. Army Corps of Engineers and Yellowstone River Conservation District Council, 2015); this includes things like ugly bank stabilization or keeping old floodplain barriers that isolate river channels (Kellog, 2016). Communities thus tend to utilize a combination of land use planning, flood insurance regulation, emergency protocols, cultural norms, and limited built infrastructure, such as levees in river communities. Flood preparation is a multi-faceted endeavor involving numerous entities. At the community level, Floodplain Administrators, Mayors, and County Commissioners are some of the official/formal decision makers most intimately involved with flood policy.

As indicated, flood insurance regulations play a major role in community flood preparedness. The National Flood Insurance Program [NFIP] is a federal program administered by the Federal Emergency Management Agency [FEMA], and every community along the Yellowstone is involved with the NFIP to some degree. FEMA publishes Flood Insurance Rate Maps [FIRMs] based on Flood Frequency Analysis and the map indicates flooding likelihood in areas near to rivers (Federal Emergency Management Agency, 2017). For land use planning and insurance rate assessment, the most critical part of this map is the 100-year floodplain (Holmes Jr. and Dinicola, 2010). However, this risk description is often misinterpreted. Many people incorrectly believe that, in the 100-year floodplain, a flood event will happen once in every 100 year period. In actuality, there is a 1% risk of flooding every year in the 100-year floodplain (2010). Furthermore, these maps do not accurately communicate the uncertainty inherent to flood

frequency analysis (Kidson and Richards, 2005; Xu, Booij, and Tong, 2010).

These flood insurance rate maps determine what kind of development is allowed in each area and applicable flood insurance rates for policyholders. Floodplain administrators at the county and local level are tasked with enforcing the NFIP regulations as they affect landowners, homeowners, public entities, and industry (Federal Emergency Management Agency, 2017). While FIRMs are updated with some regularity, it is impossible for FEMA to remap a dynamic river like the Yellowstone often enough to ensure accuracy. Furthermore, more frequent remapping would not alleviate the aforementioned misinterpretation of 100-year floodplain data.

In terms of their sociological, economic, and historic characteristics, Yellowstone River communities are quite varied. In the westernmost county, Park County, the river is a tourist attraction and an important resource for the local communities, like Livingston (U.S. Army Corps of Engineers and Yellowstone River Conservation District Council, 2015). Given the proximity to Yellowstone National Park, this area has significant tourism infrastructure and attracts a large number of second-home owners. In addition to traditional agricultural uses of water, the river offers opportunities for recreational uses by locals and tourists (Gilbertz, Horton, and Hall, 2006). Moving eastward, Yellowstone county includes some of the most populated towns along the river, Billings and Laurel. There is heavy industrial use of the river here, including water extraction for refineries and oil pipelines that cross underneath the riverbed (U.S. Army Corps of Engineers and Yellowstone River Conservation District Council, 20155). In recent years, Yellowstone flooding has caused a major pipeline rupture (Ritter, 2011) as well as disrupted the viability of Laurel's water intake (Hudson, 2016). Moving further east, Miles City, Glendive, and Forsyth are markedly smaller towns along the river. In these areas, the population is more rural and dispersed, and agricultural use of the Yellowstone is more prominent. Miles

City recently experienced a major shift in their flood insurance policies as the latest FIRM maps expanded the floodplain dramatically so that nearly 70% of the town was included in the floodplain (Thackeray, 2010).

A significant concern for communities is grappling with various economic impacts of flooding and flood prevention. Damage from Yellowstone River flooding is extensive and expensive for Montana citizens and governments (Montana DNRC, 2012), and this is only expected to increase as climate change impacts flood conditions. On the other hand, flood protection through either flood insurance or public infrastructure projects, can also be very costly. Local decision makers are thus tasked with balancing the various economic, safety, and cultural needs of their communities when making and enforcing flood protection policy.

Methodology

This research utilizes a qualitative research strategy with a case study design to understand how local decision makers' flood hazard narratives are constructed. The methodology entailed semi-structured interviews with five open-ended questions and probes (Appendix A).

Sampling

Although the Yellowstone flows through 10 counties, the purposive sampling frame for this project focuses on the 5 counties and 6 towns within these counties that have recently experienced flood events. Decision makers were defined as those who occupied one of four positions within local governments: city floodplain administrators, county floodplain administrators, city mayor, and county commissioner. Communities were defined at the county and the city level. In each county, at least one of every position type was interviewed so the sample is representative of the included geographic and position diversity. Although several elected officials and administrators in local government work on flooding issues, this sample of decision makers fulfilled a few other important criteria for the study. First, it was important to

include people intimately involved specifically in floods and floodplain management, so floodplain administrators (or floodplain managers which were used interchangeably in the study) fulfilled that criteria. County commissioners and mayors were included to obtain the larger governmental perspective. Finally, the researchers decided to obtain perspectives from both the county and city level to ascertain if there was a difference in perspective between these levels of government. Thus, in each study area, there is a city and a county counterpart for each position. It should be noted that while mayors and county commissioners are not exactly synonymous, they are both executive branch elected positions within their levels of government.

Using these criteria, all potential, currently serving participants were contacted by email and then by phone. From the list of 34 potential participants, 26 decision makers were interviewed between June and October of 2016 (Table 1). Twenty-four of the interviews were conducted in person and three were conducted over the phone. All were recorded digitally and transcribed. Interviews lasted between 40 and 75 minutes in length. Interview questions focused on recollections of previous flooding events, community flood preparation, and entities or people affected by flooding [Appendix A].

Table 1. Sampling Characteristics

	Floodplain Administrators % (n)	Elected Officials % (n)	Total % (n)
County (n=5)	27% (7)	31% (8)	58% (15)
City (n=6)	23% (6)	19% (5)	42% (11)
Total	50% (13)	50% (13)	100% (26)

Analysis

The unit of analysis is the interview (n=26). The data were inductively and deductively analyzed by the research team with the assistance of NVivo 11. Deductively, the team drafted a coding frame based on NPF narrative elements (i.e., characters, settings, and policy solutions;

Table 2). Our approach at this stage was iterative: seven interviews were coded and the team met again to adjust and clarify the coding frame. Inductively, we coded for emergent frames in a separate round of coding (Table 2). Although these frames are anchored in the deductively derived narrative elements, the frames we identified are not named or spoken per se in the interviews but rather expressed (and hence inductively derived) through narrative elements. The research team met in full or in part on several occasions to discuss the coding and reconcile any differences so as to ensure coding reliability and validity, requiring an iterative coding approach as we made decision rules. The coding was iterative in another way, as a second full round of coding was conducted to identify frames based on or derived from the previously coding of narrative elements. Because policy solution is necessarily derived from policy definitions (Stone, 2012), we used policy solutions to identify frames.

Table 2. Coding Frame

Narrative elements

(1) *Character*: an entity who/that may be human or non-human, but one that is portrayed to act or be acted upon.

Hero: an entity portrayed as the fixer of the problem
Victim: an entity portrayed as being harmed
Villain: an entity portrayed as causing the problem and/or inflicting harm

(2) *Policy Solution*: moral of the story that gives purpose to the characters' actions and motives

(3) *Setting (and props)*: Where the action is taking place (and with what props)

Frames

Identified based on previous coding for policy solution and hero or villain (e.g., policy solution of new levee with a hero of local government would be a Government Frame; policy solution of existing levee with villain of federal government would also be a Government Frame)

Careful attention was paid to identifying narrative and non-narrative text in the coding process. Referring to the NPF's index of narrativity (Shanahan et. al, 2012) has been a helpful guide. Non-human entities were coded as characters if they had personified characteristics. For

instance, the Yellowstone River was not coded as a villain in instances where the river was described as running high and overflowing its banks. On the other hand, when the river was portrayed as having motives, emotions, or a personality (i.e. "The river does what it wants), then it could be considered a character (depending on its involvement in the narrative described). Settings fit into five broad categories: river, community, private, and governmental space. Sub-nodes were created within those categories that included props, like a levee or a bridge. Narrative indicators as described in the Narratology research regarding oral interviews also guided the coding process; i.e. looking for phrases like "Let me tell you about this one time" etc. (Herman, 2004).

Finally, the analysis then focused on the extent to which frames, settings, and characters array within each narrative and if these narratives varied by attributes, i.e., geography along the Yellowstone or by position (elected official or floodplain manager).

The coding was completed by one researcher, with intermittent coding checks by a second. These analyses are, as such, preliminary; intercoder reliability will be measured as more second coding is complete.

Results

The narratives coming from decision makers involved with fold preparation and mitigation are varied in construct and content. The flood risk narratives reveal linkages between settings, frames, and characters, and the way these linkages were assembled by the interviewees differed by geography. Below we detail seven findings.

1. Different settings offer different perspectives.

Settings are where the action in the narrative takes place. In turn, each setting has its own perspective and unique characteristics. While some characteristics are shared across settings, *the*

distinguishing factors between them reveal differences in focalization. From the narratives, four main settings arise in the coding: bureaucratic (e.g., regulatory and government spaces), community (e.g., the city or county), private (e.g., ranches, landowners), and river (i.e., the Yellowstone). Within these settings, there are also props, which are both physical (e.g., a levee) and ideational (e.g., NFIP map lines).

Bureaucratic setting is characterized by coordination and rules. A lot of the bureaucratic setting is expressed through FIRM maps, agency meetings held in government offices, and the inter-departmental or inter-agency space where phone conversations, emails, and other communications take place. Much of the perspective here is ideational space (the inter-agency space) or an aerial perspective.

> "We started talking to the media, when they come in and asked for paperwork, they would say, our secretary we'd say, 'Make four copies of this. Here's the original, make four copies. Put the original back where it belongs and give them a copy.' Because you're going to give 'em all four -- they'll take all four copies and they're going to lose the first three. And they'll probably come back after you give them the fourth one and they'll lose that one and you'll have to make more copies anyway. They lost everything we gave them, at least two or three times. They were a joke. And we're meeting with FEMA tomorrow."
>
> - Interview 3

> "Because I know the city spent I think 300,000-plus thousand just to study the area [unclear] Livingston. Because we had half the town in the floodplain, regulated flood hazard area. And they conducted their own study and it was taken out, including the hospital. . . So when the DFIRM maps came out they were pretty consistent with the historical floodplain maps, and they showed the whole area by the hospital as part of the flood fringe, which is in the regulated flood hazard area. There's the floodway, the flood fringe, and then the 500-year floodplain, which is .02 chance of happening on any given year. We regulate to the flood fringe, [unclear] the floodway."
>
> – Interview 22

Community setting is characterized by cultural and social boundaries. Many participants describe their location or town as culturally circumscribed, e.g., "Around here, we . . . ." Included here are the more nebulous conception of "town" that may extends beyond technical borders and socially defined spaces like downtown or a business district. Being out in the county generally and interacting with people in a public space is defined as a community setting. The perspective is the closer to the ground, but it is broad and encompassing. It is also more attuned to the human environment like buildings, roads, towns, neighborhoods, etc.

> "It went from 30% of the community being in to 80% of the community being in. And all of a sudden we had a flood way, the floodway encompassed about 5% of the community. That was huge change 'cause now all of a sudden the people on the South side, which in Miles City there's always been a rift between the North side, which they're more lower to middle income, and the South side which is middle to higher income families, there's always a rift between them. Now all of a sudden the *South* side, who was never in the Floodplain, they all of a sudden had to deal with what the people on the North side had to deal with. And so that rift kind of went away."
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> - Interview 18

> "[T]here will be an intersection in town that floods regularly, there's several of them, and they're referred to as Lake Such-and-Such. And that's a low spot, that's where the water collects. We have one right across the street at the hardware store where we kind of place bets on whether the water will actually get in the building or not. I mean there's the wash from cars driving by and the flotsam that's on the water surface that rolls right up on the sidewalk [laughs] that needs to be cleaned up."
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> - Interview 5

Private settings are defined more precisely, either by the boundaries of the home or a property line. There is more detail recounted and the perspective is eye-level and very specific. Much of the specificity is manifested in numbers and counting – basically an accounting of what is included in the property and fluctuating property values.

> "It's primarily crop damage and erosion to the banks, where you know it'll erode the bank off and some land will fall in the river. That's a loss to production . . . And it's not really a flooding event but kind of, but ice jams are also very damaging to agriculture. A lot of people now are putting in pivots rather than flood irrigation. And those big ice chunks just smash those pivots. And they're $100,000 dollars apiece, so, a four foot block of ice can annihilate one of those pretty quickly. [banging in other room]"
>
> - Interview 16

> "[R]ight here is right where this guy lost I know, roughly 20 acres right in there. And this guy here, he lost a bunch in here. And they got this all documented which was lost. But the problem is, where does the land go, you know, this used to be my land here, now the river taken it -- where did it go, I'm still paying taxes on it [laughs]."
>
> – Interview 14

The river setting shares some features with the private settings in that it is described with more detail and specificity. Many river settings is personal and from the eye level perspective, as if one was on a boat or standing on a river bank. The river also has some more expansive perspectives especially when the channel migration description and river-wide characteristics were imparted.

> "We looked at flooding that came in the 70's. We looked at the Yellowstone river at different times, with the Yellowstone river we looked at, um, different areas of flooding over a period of time. Literally from 1900's to today. And you'll see, it's cyclical, what actually happens. And the river moves. You go down by Huntley and the Huntley bridge, you will see the cliffs. You will see the water pushing up towards the cliffs, eventually they'll make a turn and they'll go back to the other side . . . [Y]ou got to understand that the river is going to erode away and it will move back and forth. And it's Wild and Scenic. And you know whatever you do, it's still going to have a mind of its own."
>
> - Interview 7

> "We have a lot of ice jams on the Yellowstone, right where it makes that turns there's a lot of bedrock there. Um, you don't want to take your boat on it or the bottom of your boat's going to be

> gone. And it just take a 90-degree and that's just it. Um, ice jams are a *huge* problem for us. The Tongue usually breaks up before the Yellowstone, so the Tongue will have an ice jam at the confluence waiting for the Yellowstone, which is completely solid ice, it's waiting for the Yellowstone to give so it can carry its ice the rest of the way. And we've had multiple years where yeah, we've sat there, and been a little scared. And then start hearing it break, and it's scary."
>
> – Interview 18

The focalization for these settings transports the reader into the flood risk narratives at different vantage points: an inter-agency meeting room, technical flood insurance language and rules, customs of behavior, particular shared public spaces, someone's front porch or the river bank.

2. Settings are more than a backdrop; they help to define the problem and shape characters' actions.

Concurrent with the finding that different settings offer different types and levels of detail, we find that settings are not a barebones backdrop, mentioned once and then forgotten. In the narratives, settings are rich with detail and brought the issue to life. We also find that settings are described in ways that defined, constrained, or allowed for character actions.

> "And it was, I'll say, it was scary up there. Because you had that river that was high, um, I haven't seen it that high in a long time. And it, it was scary being that close to the equipment and our levee wasn't very wide right there, it was about wide enough for our excavator to go on. And trucks would have to pull forward on it, back up, dump the concrete, then they'd have to back out 'cause the road, they couldn't turn around on the road so they had to back up all the time. And it was a little scary over there. Um, because with Miles City the river is *right* next to the levee, there is no space in between, it's just river and then the levee starts [hits side of hand on desk twice] . . . But, the damage that was sustained on the levee, we had a really good group of Public Works Directors that our Public Works crew they jumped right on that. There were some spots where I was about ready to say, 'You guys gotta pull off this because you're lives are not -- we can't have your lives in danger.' But we were able to get through it, but they stayed on top of it really well."

– Interview 18

In this instance, the vivid description of the river helps to illustrate the local government workers' bravery and heroism in saving the community. Later in the same narrative, the river wildness and power justifies the big expense the community should pay to protect itself (Interview 18). With the help of the settings, the problem is one stemming from the natural environment, is indeed very serious and a governmental response is required, with community support.

Many narratives' drama occur within the hazard preparedness actions, not necessarily from an actual flood event. Here we can see that the setting also defines the story action and characters' experience.

> "[S]o our concern is we spend $2 million or $2 million-plus to get the Corps happy, 2 years down the road FEMA comes in and says, "we're remapping," we have no idea what FEMA may say we need to do to keep certified . . But that's the big question that's up -- that's one of our big things we talk about all the time within the city, mayor, council, myself. We're not sure where we draw the line. We've asked a lot of questions to ask the Corps and FEMA, which projects overlap. You know, if it makes the Corps happy, it makes FEMA happy, no one will -- they just say, 'We're different entities, we don't know. You know [small laugh], we'll tell what will keep the Corps happy right now.' FEMA won't tell you what will keep them happy until they remap the Floodplain, evaluate all the information . . . So that's our big question and, yep, if we had any answers to that, it would be a great thing. But the two -- the Corps and FEMA do not work together or communicate it appears at all. So."
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> - Interview 24

> "Yeah, this lot here, on the end of that mall, was owned by a major grocery store retailer that wanted to build there. And the city *had* to say no. We cannot allow any -- Because any building displaces so much more water, making the flood water higher. So even the -- there's a large Ford Dealership right here that wanted to expand their building. No. The grocery stores, the Reynolds grocery's here, across from them is the existing Albertson's. Both of them have

> large lots. Albertson's wanted to expand their store. No . . . It's just a bad deal . . . You know one of the consequences is that McDonalds since they couldn't expand, they closed. You know and, I'm the guy who gets to say that, although I don't like it . . . [T]his store here just, they're doing a remodel because we wouldn't allow them to expand. NFIP will only allow them to remodel up to 50% of their, uh . .. appraised value. So they -- we can't even let them fix the store up for more than 50% of their appraised value or they won't cover them by flood insurance."
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> - Interview 13

In this latter example, the stagnating economy is illustrated through detailed visual descriptions of the faltering business district (as opposed to a report of job numbers or home prices). The federal government's failure to take responsibility for the flooding problem in town and rigidity in flood insurance rules have grave economic impacts. These private business setting descriptions help to define the type of victimization of the community and town; specifically, the characters are put upon economically by FEMA's inappropriate floodplain maps. The setting boundaries of a private business shape the appropriate solutions to the problem in part by limiting the scope of possible action. Within the private business setting, some policy solutions are sensible (like having the federal government lift building restrictions) *and others feel out of place* (e.g., having local elected officials meet in a government office to discuss evacuation protocols for the entire county). In this way, the choice of settings and the way they are described are a manifestation of the frame. Settings often define what policy solutions belong and which are, literally, out of place. This limited set of possibilities helps build the case for the narrator's preferred policy solution.

It is worth noting that props within the physical setting sometimes are positioned to serve as narrative characters. For instance, a hero-levee can "save" and "protect" a town.

> "We have not had a flood, we have the dyke, the dyke protects us so we've had no flood events in, I think 1918, 1919 was the last

> major flood. But since the dyke has been made, was created, mid-1940's I don't think there's been any type of flood damage because of the river in the city of Forsyth."
>
> - Interview 10

However, many times the setting props do not express motivation or functions. In the earlier example (Interview 18), the river is indeed very active but it is more of an environmental condition, not a motivated character.

3. Frames can stand alone or they can be linked

Frames are derived from the narrative element of moral of the story or policy solutions, because they most explicitly defined the problem at hand and appropriate responses. Four distinct frames emerge from the data: Government, Economic, Mother Nature, and Code-of-the-West. It was an early expectation that a single frame would apply to a single narrative, but this was proven incorrect as interviewee narratives typically included more than one frame. This led us to reconsider our original frame categories.

Some frames appeared to be used singularly, like the Government frame. Many narratives stuck to a primarily government frame with some deviation into other frames. The economic frame, on the other hand, rarely appeared independently, and it was most often coupled with the Government frame. Other frames are repeatedly linked but are not as dependent as the economic frame, in that they could also stand on their own. Frequently coupled frames included the Mother Nature and Code-of-the-West frames.

The resulting understanding of the frames became as follows: Government, Government-Economic, Mother Nature, and Code-of-the-West. For clarity's sake, we have kept the original nomenclature in this analysis, keeping in mind the new understanding of these frames.

4. Specific settings populate different frames

Specific settings are more associated with certain frames, indicating that certain settings illustrate the frame better than others.

Code of the West frames are most often associated with private and river settings. The Mother Nature frame is most often associated with the river setting, though there is also a noticeable association of Mother Nature frames with private settings. Bureaucratic settings are most associated with the Government Frames (unsurprisingly) and Economic Frame. While there are instances of settings associated with other frames, the general trends described above stood out in our analysis.

5. Unique and universal characters populate each frame, but characterization differs according to frames.

Certain characters populate particular frames which is evidence that frames indeed filter narrative elements for thematic consistency. For instance, taxpayers are only a character within the economic frame (and only as a victim). The Yellowstone River itself is typically a character within the Mother Nature and Code-of-the-West frames, and not in other frames. Likewise, the fossil fuel industry is only a character within the Mother Nature and Code-of-the-West frames.

Many characters appear in various frames, and while they are alike in name, they differ in characterization and action depending on their frame. For instance, landowners are often the hero, victim, and villain in the Code-of-the-West frame, but in the Government frame, landowners are passive victims. Within the Code-of-the-West frame, a landowner could be heroic by taking care of his own property so others downriver would not be adversely affected; assist neighbors during a flooding event; and importantly, to save themselves.

> "R: Some people didn't get called and they criticized our DES director. Well they lived here 50 years. This happens nine times out of ten. You outta, you shouldn't have to be told. Get away from that river, stay away . . .
>
> I: So, it sounds like it's a matter of personal responsibility?
>
> R: Right. A lot of it is . . . We can't put your finger on somebody

> and say ‘you didn't tell me.’ This happens every year. You know, I farm and ranch along there. We have river bottom. We watch this, we listen to the river reports that come out or you get it on the, uh, online, from Glasgow up there, they give their river level, what's happening in Miles City, Terry, Billings, whatever's coming down. Just pay attention. Get to warm up, you see water start running, alright, the river's going to go up.”
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> - Interview 11, (Code of the West Frame)

But in the Government frame, landowners are almost always cast as victims:

> “There are many, many other parts to the plan. But it includes a good communication plan, um, you know depending on what type of event you have. If you have flooding events, then you need to notify the irrigation people and protect the farmers and armor the roads and the abutments and the bridges”
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> – Interview 23 (Government Frame)

There are also a few universal characters, specifically “the community” and “local government” who populate almost every narrative. The local government is typically a hero or victim across all frames. When the community is a character, it is typically a victim across all frames. While their role might stay the same (i.e. whether they are a victim or hero, etc.), their behavior varies according to frame. For instance, the community-victim would be put upon by onerous flood insurance premiums in the Economic frame:

> “And we get a lot of people and, um, residents, that come to [town] for a variety of those services. If this economy isn't functional, it isn't healthy and those services start to leave because of that. That will have a regional impact. Not just a local community impact . . . Let me preface that. The reason the economy is going to be affected as highly as I'm stating is because of the $800,000-plus that's leaving this community annually in flood -- in *mandated* flood insurance premiums.”
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> - Interview 1

The community is a victim by federal overreach from new floodplain maps in the Government frame:

> “I think what they're wanting is a flood study done in Forsyth. And, um, we have people that work with the county, that were

> involved with that process in Miles City, and, like, they went in there and I guess they did the studies in kind of polygons throughout the city and he was, one guy was saying, well one piece of property the back side of the house, the flood level's here and on the front side of the house the flood level was 4 feet lower. So how do you get that? And then call your study accurate? So what I think this is, is I think FEMA's going to push for, um, to get this -- they want to sell people in Forsyth flood insurance. I think the only way they can do that is get the dyke decertifies."
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> - Interview 3

The community is also a victim in the Government Frame when their safety is compromised by poor FEMA maps:

> "And, they're still letting trailers be replaced by trailers. Directly. Without any additional flood-proofing or raising. Which they shouldn't be doing . . . The city is allowing that based on an attorney decision that didn't know what he was talking about."
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> - Interview 2

And finally, the community is a victim of actual flood damage due to unpredictable river changes in the Mother Nature frame:

> "Whereas this was the main channel, now this is the main channel, so when we see that big event, these people were used to the lesser of two channels. And whereas the river came around this bend and went this way, now it comes around the bend and goes this way. And so where it was kind of gunning for them, now it's gunning for them. So I just think the hydrologics have shifted in certain respects. And this isn't the whole channel obviously, but certain areas where when we get that big event, people are probably going to be seeing flooding that they haven't seen before because it's a different river than its been."
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> - Interview 22

Finally, some characters vary in action and characterization based on geographic location. The federal government (including the Army Corps of Engineers, FEMA, and the federal government generally) is the most dramatically different character according to

geographic location. In one county, the federal government is a hero, or at the very least, is seen as trying their best. Their efforts to accurately map the town (thereby reducing flood insurance premiums) and provide funding for a new levee are heroic actions.

> "That's where I mean we firmed up our flooding plan and understanding what our true Floodplain and flood risk was. Because when the Army Corps came in our floodplain map, if you will, actually reduced the area identified for risk . . . I think it was just to take a realistic look because I think we had, um, some folks with homes that were in the initial Floodplain that were never, ever going to be at risk for flood loss. So I think it realistically looked at our risk, also helped us with insurance rates for homes in areas once considered in the Floodplain but are not currently in the Floodplain, and *shouldn't* be in the Floodplain quite frankly, because there's just a zero risk at a 150-year mark. Which, basically, at that point, build an arc."
>
> – Interview 21

> "So the Corps was the first one to notify us and then the state of Montana called us and worked with us, said, "We need to build a levee through town along the bank of the Yellowstone to protect our parks, our infrastructure . . . most of the cost was born by the Army Corps and the state of Montana, so it wasn't a huge financial thing . . . We hit our average year, but um, when it's above that we usually have state and Army Corps and other resources show up and say, 'We think this is a real thing.' So we have a lot of warning really, that's um, it's good to be here."
>
> - Interview 2

In another county, the federal government is viewed more neutrally and appears far less frequently as a character. Moving further down river, the federal government is viewed with far more derision. The villainous characterization also increases in tone and frequency correspondingly with further east locations. The federal actions vary between incompetence in one county and malicious intent other counties.

> "[T]hey wanted some permit for fish in a coulee that runs maybe two weeks out of the year. They want some fish permit. Well, we didn't have a study done on the fish because it's dry, like except in

> spring runoff in a big rain . . . But 'cause there was water, there must be fish in there. You know, I was up there two weeks later, and it was dry as a bone. The water was gone. And we went to Fish and Game, we went to every agency we could find, they all said "No, you don't need no damn permit for that." FEMA wouldn't accept it."
>
> - Interview 3 (incompetence)

> "[The federal government] actually constructed the berm and there is a dip in it for if this water does get high enough that it's supposed run across the interstate and by pass the bridge. The water that's . . . so, they *knew* there's a possibility there was going to be a high level of water that had to go somewhere so they constructed the dip in the interstate for this to come through. Why put the dit there to begin with? So it created a blockage of the river and it backs it all the way up here . . . But, it's federal highway, there not, you know, they won't do anything about it."
>
> - Interview 12, p (malicious intent)

6. Frames and settings vary according to geographic attribute.

Certain frames are found to be more prevalent in specific geographic locations. Because certain narrative settings correspond with certain frames, it follows that as frame differ according to geographic location, so too do settings.

In one county, the narratives tend to contain community settings (and Economic frames) (Interviews 1, 14, 15, 18). On the other hand, another county's narratives are more focused on private and river settings (and Code of the West and Mother Nature frames) (Interviews 4, 8, 17, 20, 23, 25). These narratives have almost no community settings and very few instances of economic framing. It is worth noting that the only instances of community settings and economic framing are concentrated in one town that is dealing with a lack of state support for flood damaged infrastructure (Interviews 4, 9).

A frames' prevalence in a narrative is determined by frequency (how many character actions took place in that frame) and then in terms of vividness or emphasis. So, for instance, a character action could take place in the Mother Nature frame, but if it is only one instance in the

narrative and that action did not have much of an effect on the narrative, that was not counted. The notable similarities in frames, as measured by character actions, are as follow:

- Almost all Custer (3/4) and Dawson (4/4) narratives included Economic Frames. Rosebud (2/5), Yellowstone (2/8), and Park counties (0/5) had far fewer instances of economic framing.
- The Mother Nature Frame was prevalent in Yellowstone (6/8), Rosebud (4/5), and Dawson narratives (3/4). They were of mixed importance within Custer county (2/4) and almost entirely absent from Park county (1/5).
- Code of the West Frame was prevalent in Yellowstone (5/8) and Rosebud counties (3/5), while it was far less frequent in Custer (1/4), Dawson (1/4), and Park narratives (1/4).

There is no difference geographically in terms of Government Frames, which are present in most narratives.

7. Competing narratives may utilize the same frame.

In some communities, there is a common narrative shared by most interviewees as well as a competing narrative that also shares the same frame. For example, in one county, the dominant narrative (Narrative 1 below) is that the federal government is victimizing the town economically by not taking financial responsibility to fix the levee; likewise, the Federal government's refusal to acknowledge the effectiveness of the existing levee in floodplain mapping victimized the community financially by restricting development. The victimized characters are business owners (especially the town's only two grocery stores) and community members who rely on these businesses. This narrative occurs mostly within the Government and Economic frames in that the problem and actions are characterized by economic and regulatory dimensions. An appropriate policy solution is for the government to remove federal infrastructure (at a great cost) that exacerbates flooding potential in the business district.

Narrative 1:

> "Well, we just as a community feel that, you know, that being one of the sources of helping with our flood problems that opening up 500 feet, or 700 feet, or 800 feet more of the Yellowstone river, would have a positive effect on how the water has a route out of here, in the event of an ice jam at the I-94 bridge. And, [the Army Corps of Engineers] disagreed because the economic cost, like I said, the cost of doing that they didn't feel warranted the effect it would have on the river."
>
> - Interview 12

> "So that's where we are today, is . . . you know, they're in the National Flood Insurance Program, but we can't allow any building. And the properties that are in there who want to expand, we can't allow that either. And there's a couple of grocery stores that would really like to expand. Albertsons, and then you can't expand the footprint of your building in the floodplain. We lost a McDonald's out there because McDonald's was forcing the proprietor to upgrade his building. And the city can't . . . But, it's been a -- it's a real headache, it's a bad deal. It's been bad for this town for many years."
>
> – Interview 13

The alternative narrative (Narrative 2) also operated in Government and Economic frames, but follows a different track. Here, the levee is not adequate to withstand future floods and the local government, not the federal government, is to blame for not acknowledging the real problem. Within this narrative, these conditions have severe economic impacts to the same victims, but the impacts are somewhat different. The community and businesses (again, the same two grocery stores) are vulnerable to financial losses due to a severe flood damage. Appropriate policy solutions are for the government to buy out the homes right behind the levee and raise local funds to build up the levee to protect the town financially.

Narrative 2:

> "[R]: And what's really bad, if you thought we ever did have a hundred year flood, the only two grocery stores we have are Albertson's and Reynolds. Ding ding, you know.
>
> I: And they're right in the floodplain

R: Yeah, they're going to get hit”

- Interview 2

> “Now, the amount that would have to be bought out is minimal . . . I'm just saying, if you're weighing that, that, what is a hundred homes suddenly get flooded in a flood event that's very very sudden, uh, there's a lot of elderly that live in those homes that wouldn't have an ability to get out easily. Um . . . And, if you look at the damage that's potentially there versus . . . having a few people move? [small laugh]”
>
> - Interview 2, p 441 - 445

The shared frame between these narratives illustrates the possibility that multiple narratives can exist within the same frame. In this instance, the two narratives are competing or oppositional. Other arrangements of multiple narratives in the same frame are also observed. In another county, the problem is conceived of differently and the problem effects are similar, though not identical, but both narratives conclude with the same policy solution.

For Interviewees 15 and 18, their narratives stuck mostly to Economic and Government frames. Their conception of the problem is different within that frame:

> “But we do have something that is time-proven itself to withstand, I mean especially with the rainfall, and even the waters that are coming down because no irrigation's being done and stuff. We did hit very high levels and we withstood it then, but we don't get that benefit. I mean at least the benefit of the doubt, something to help relieve what we're doing. So now we're faced with a roughly $44 million dollar project to alleviate nearly a potential of upwards of more than $2 million dollars a year leaving this community.”
>
> - Interview 15

> “They don’t have the engineering behind it to understand that eventually that levee’s going to fail. And when it fails it’s going to fail big time. And it just takes that one time.”
>
> “So, depending upon where the levee breaks can be the difference between 10% of the community being damaged, up to 60% of the community being flood damaged.”
>
> - Interview 18

However, they both agree on the same policy solution:

> "Well, and I guess, for there, the finance one is definitely the greatest amount. I mean and 8,800 populace, $2 million roughly leaving the community annually, that's a hell of an economic impact to us. So really, you look at the cost of the dyke now at 44 million, 20 years before I even retire, we are now reaping the benefits of this action [building the new levee]. So, financially just in that aspect, but also for the community to be protected is ultimately what we're after --"
>
> – Interview 15

> "Um, so all of those things, plus 2011, really kind of put the nail on the coffin that we had to do something as a community. And the city has been taking it on, um, the county, you know, they, they're not impacted as much as Miles City is. The county is helping us with the [new levee] project, it's about a $45 million dollar project we're doing. So the county is helping 'cause it's a lot for a community to take on. But, it's majority city that's been doing the levee work and trying to get this project to happen."
>
> - Interview 18

The finding that multiple narratives share the same frame is potentially important for the NPF; more empirical research is needed, though, to test this finding.

Some Further Thoughts

Most narratives studied under the NPF umbrella are narratives that are strategically constructed by an entity; as such, many of the narratives studied in the NPF are narratives that are intended to be externally communicated, to persuade others (e.g., decision makers, the public) of the veracity of their preferred policy solution (e.g., Shanahan et al., 2013). What is unique in this study is that it is the internally held narratives of decision makers that are apprehended. As such, these narratives are more complex or fluid that those that are strategically constructed to persuade. What this study reveals is that the narrative organization of perceptions, memories, and explanations about the world (Berinsky and Kinder, 2006; Jones and Song, 2014; Lodge and Taber, 2013) are truly complex, with multiple frames and varied settings and differing arrays of characters within each setting.

Consistent with Phelan and Rabinowitz' (2012) findings, we find that settings establish thematic boundaries for action and help to characterize narrative actors. Additionally, settings do indeed fade between the background and the foreground as narratively required. The descriptions of time and space set up a world in which the plot (or changes from one state to another) can play out. The richness of settings suggest various levels of narrative transport and persuasion. Thus, settings are not just a stylistic flourish, but a critical component of policy narratives.

Settings also express or manifest particular frames through focalization. The choice of a particular setting and the resulting restrictions of possible, reasonable actions illustrate the frame's rules of logic. By narrowing down the set of possibilities in terms of character actions and policy solutions, the setting serves to validate and legitimize some actions while excluding others.

The finding that the actions and characterizations of actors was corresponded to discrete frames and settings is significant to the NPF and warrants further investigation. These results suggest that frames, settings, and characters in a single narrative correspond with each other, and are therefore arrayed in a consistent manner. These consistencies were observed across narratives, and in some instances, across geographic location.

Future researchers may be interested in examining if endogenous narratives in non-debate arenas include more frames than exogenous narratives in highly contentious policy arenas. Because endogenous narratives, particularly ones imparted spontaneously in a private setting, don't have the social pressure for narrators to "stay on message" or "get to the point." In this light, it seems likely that they would include more frame and thematic elements than exogenous narratives.

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Appendix A

Interview Questions

1. Can you please describe to me your role in [city/county/conservation district] as [position title] and how long you have been in this position?

2. Flooding on the Yellowstone has been occurring over many years. In thinking about [community], can you describe a memorable flood event since you've been in the position of [position title]? [If not, ask if they can describe a flooding event that is well-known in the community]
   Follow-Up Questions:
   -- What happened?
   -- What were the consequences?
   -- Who was affected by the flood?
   -- How was the community as a whole affected
   -- Who helped during this flood event?
   -- What were the obstacles that came up during this event?
   -- Who helped right after the flood waters receded/after the event?

3. Can you tell me about what plans were in place to prepare for that flood event?
   Follow-Up Questions:
   -- Who was responsible for being in charge of this plan
   -- What was the plan supposed to do/protect?

4. What lessons were learned from XXXX flood event about preparing for future flood events?
   Follow-up Questions:
   -- Who learned those lessons?
   -- Do you think this was the correct take-away? -- Why or why not?
   -- What plans are in place now for future flood events?

5. Looking ahead, do you feel your community is prepared to handle future flooding events? Why or why not?
   Follow-up Questions:
   -- Do you think the same people/entities will be affected in upcoming floods as in the ones who were affected in that flood event you described earlier?
   -- Where do you foresee the greatest impacts occurring in a future flood?