Appendix A: Parameter Changes for Flood-1a Mitigation Policies

new PE incentive Local

incentives to attact Policy Entrepreneurs

What if incentives were provided for new policy entrepreneurs to become active in the policy process.

fraction of vulnerable property perceived by PE	1

new PE active Local

incentives to attractive and keep PE involved

What if incentives were given to attract policy entrepreneurs and keep them active in the policy process.

The time to lose interest increases four times the base run and all of the vulnerable property is perceived as vulnerable.

fraction of PE losing interest	.05
fraction of vulnerable property perceived by PE	1

commit to knowledge Local

lowering the knowledge commitment threshold

what if incentives were provided to build knowledge without political commitment.

Allow knolwedge to build even without political commitment

commitment to mitigation effect on vulnerability knowledge	make .5 the lowest value

reduce relief stakeholders Local

Incentives to reduce relief stakeholders

What if there are incentives to reduce the number of stakeholders for relief and protective policies.

Double the fraction of stakeholders losing interets

fraction of RP losing interest	.5

structures fail	Local	time to forget structural failure	20
remember levee breaks/ structures that fail	what if public information campaigns would increase the memory of levee breaks and play down structural protection.	max fraction vulnerable property protected by structural mitigation	.5

LD zoning	Local	available property effect on land development coalition	max effect =.5
zoning policies to reduce LD stakeholder influence	What if there are incentives and sanctions to restrict land development stakeholder influence on zoning policy decisions.		

less tax pressure	Federal	development effect on new problems	constant at 1
aid to lower property tax pressures	what if resources were provided to control infrastructure costs and local problems.		

regulating recovery	Federal	fraction of damaged properties recovered wtih public resources	1
federa funds for recovery creates open space	What if every time recovery uses federal resources, locals are forced to create open space.	federal relief effect on buyout incentives	constant at 1

restore environment	Local	switch for natural barrier regulations	1
structural mit resources to replenish barriers	what if structural mitigation resources are used to replenish natural barriers.		

exist damage memory	Local	existing damage effect on fraction forgetting	never below .5
use existing damage to build memory	what if public information used existing damage to build memory of risk		

exist memory no forget	Local	existing damage effect on fraction forgetting	never below .5
use damage and do not forget damage	what if public information campaigns used existing damage and provided reminders to keep memory alive	damage forget fraction	.125

research floods	Local	commitment to mitigation effect on vulnerability knowledge	always 1
annual research on floods	what if there were annual vulnerability assessments with or without political commitment	time to conduct vulnerability assessment	1

low relief agenda	Local	fraction of RP losing interest	1
restricting protective stakeholder influence	what if incentives prevented PE for relief from staying active in the policy process.		

less development	Local	PE for LD losing interest t	1
reduce stakeholders for development	what if incentives reduced the number stakeholders for development	available property effect on land development coalition	max =.5

restrict LD PE	Local		
lower LD and less effective	what if incentives lowered LD stakeholders and made them less effective in the policy process	PE for LD losing interest t	1
		PE effect on communicating benefits of development	soft if/then starts at 0 instead of 1

CRS	Local		
mitigation with all four CRS activity categories	What if a community decided to enact and implement policies in all 4 CRS categories	damage forget fraction	.125
		existing damage effect on fraction forgetting	never greater than .5
		commitment to mitigation effect on vulnerability knowledge	never less than .5

fraction of vulnerable property	fraction of PE losing interest	time to correct structural gap	levee increase multiplier	time to perceive wetland capacity	commitment to mitigation effect on
1	.05	1	4	1.25	never greater than .5

Base	Local		
Base	No policy parameters are changed. Base conditions apply.		

more levees	Local		
perceive the worst case scenario	What if communities responded to events with more structural mitigation projects. What if their worst case scenario was 4 times the last event instead of 2 times the last event.	levee increase multiplier	4

media	Local		
media overestimates damage	What if the media overestimated the damages for each event.	media effect on reporting damage	2

memory	Local	damage forget fraction	.125
Keep the memory alive	what if public information campaigns were used to keep the memory of damage alive for more than 4 years.		

PE mit active	Local	fraction of PE losing interest	.05
Policy Entrepreneurs do not find other problems	What if policy entrepreneurs were provided incentives to stay active in the policy process.		