



STRESSOR EVALUATION MATRIX

A TOOL TO GAUGE IMPACTS AND PRIORITIES FOR THE MBNEP SAC

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PURPOSE OF THIS MATRIX

It is intended to:

- Reveal habitat/service/stressor combination priorities.
- Help find areas of disagreement needing more discussion.
- Give the SAC a shared voice for communicating priorities.

It is not intended to:

- Re-invent existing impact assessments.
- Create an actionable outcome or response.
- Be quantitative or exhaustive.

WHY COAL ASH?

- Elected officials have questions
- Strong opinions from special interest groups
- Multiple parties/experts have presented information
- Need a way to compile internal expert opinions





DRAFTING OF THE REVISED MATRIX

- Sub-committee sought ways to utilize existing matrix template
 - Impacts of stressors on services within habitats
- Coal ash had clearly defined alternative activities
 - Cap in place vs. remove and relocate
- Activities could have different and/or similar stressors
 - Different potential events within each activity could lead to stressors
- Needed to include human services beyond typical ES
 - Drew potential services from Harte Institute <http://www.gecoserv.org/>
- Habitats needed to be paired down
 - Not all impacts from original directly affected
 - Leads to questions of spatiotemporal scale of impacts



THE MATRIX IS BROKEN INTO SEVERAL COMPONENTS

		CAP IN PLACE				REMOVE AND RELOCATE			
HABITATS	SERVICES	LEVY BREACH		CAP FAILURE		TRANSPORT		EXTRACTION	
		SLUDGE RELEASE		TOXIC METAL RELEASE		INFRASTRUCTURE		DIRECT EXPOSURE	
RIVERS/ STREAMS	BIODIVERSITY	#	#	#	#	#	#	#	#
RIVERS/ STREAMS	FLOOD CONTROL	#	#	#	#	#	#	#	#
RIVERS/ STREAMS	RECREATION	#	#	#	#	#	#	#	#
RIVERS/ STREAMS	SEDIMENT RETENTION	#	#	#	#	#	#	#	#
RIVERS/ STREAMS	CULTURAL	#	#	#	#	#	#	#	#

TOP LAYER:
POTENTIAL ACTIVITY



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HABITATS	SERVICES	SLUDGE RELEASE		TOXIC METAL RELEASE		INFRASTRUCTURE		DIRECT EXPOSURE	
RIVERS/ STREAMS	BIODIVERSITY	#	#	#	#	#	#	#	#
RIVERS/ STREAMS	FLOOD CONTROL	#	#	#	#	#	#	#	#
RIVERS/ STREAMS	RECREATION	#	#	#	#	#	#	#	#
RIVERS/ STREAMS	SEDIMENT RETENTION	#	#	#	#	#	#	#	#
RIVERS/ STREAMS	CULTURAL	#	#	#	#	#	#	#	#

2ND:
POTENTIAL "EVENTS"



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		SLUDGE RELEASE		TOXIC METAL RELEASE		INFRASTRUCTURE		DIRECT EXPOSURE	
RIVERS/ STREAMS	BIODIVERSITY	#	#	#	#	#	#	#	#
RIVERS/ STREAMS	FLOOD CONTROL	#	#					#	#
RIVERS/ STREAMS	RECREATION	#	#					#	#
RIVERS/ STREAMS	SEDIMENT RETENTION	#	#					#	#
RIVERS/ STREAMS	CULTURAL	#	#	#	#	#	#	#	#

3RD:
PRIMARY STRESSORS



THE MATRIX IS BROKEN INTO SEVERAL COMPONENTS

HABITATS		CAP IN PLACE				REMOVE AND RELOCATE			
		LEVY BREACH		CAP FAILURE		TRANSPORT		EXTRACTION	
		SLUDGE RELEASE		TOXIC METAL RELEASE		INFRASTRUCTURE		DIRECT EXPOSURE	
RIVERS/ STREAMS	BIODIVERSITY	#	#	#	#	#	#	#	#
RIVERS/ STREAMS	FLOOD CONTROL	1ST COLUMN: PRIMARY HABITATS IMPACTED			#	#	#	#	#
RIVERS/ STREAMS	RECREATION				#	#	#	#	
RIVERS/ STREAMS	SEDIMENT RETENTION				#	#	#	#	
RIVERS/ STREAMS	CULTURAL				#	#	#	#	
RIVERS/ STREAMS					#	#	#	#	



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		CAP IN PLACE				REMOVE AND RELOCATE			
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HABITATS	SERVICES								
RIVERS/ STREAMS	BIODIVERSITY	#	#	#	#	#	#	#	#
RIVERS/ STREAMS	FLOOD CONTROL	#	#	#	#	#	#	#	#
RIVERS/ STREAMS	RECREATION	#	#	#	#	#	#	#	#
RIVERS/ STREAMS	SEDIMENT RETENTION	#	#	#	#	#	#	#	#
RIVERS/ STREAMS	CULTURAL	#	#	#	#	#	#	#	#

2ND COLUMN:
ECOSYSTEM/HUMAN
SERVICES



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HABITATS	SERVICES	CAP IN PLACE			REMOVE AND RELOCATE				
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RIVERS/ STREAMS	BIODIVERSITY	#	#	#	#	#	#	#	#
RIVERS/ STREAMS	FLOOD CONTROL	#	#	#	#	#	#	#	#
RIVERS/ STREAMS	RECREATION	#	#	#	#	#	#	#	#
RIVERS/ STREAMS	SEDIMENT RETENTION	#	#	#	#	#	#	#	#
RIVERS/ STREAMS	CULTURAL	#	#	#	#	#	#	#	#

MAIN BODY:
AVERAGED SAC
RESPONSES (0-3)



WHAT WE NEED TODAY

- Discuss structure/utility of matrix
- Build consensus on services
- Build consensus on habitats
 - Should we choose “top 3”?
 - How do we distill expertise?
- Build consensus on stressors
 - Major events and resulting stressors
- Briefly work through the matrix

BEYOND COAL ASH

- Matrix template has been used successfully by SAC in CCMP
- Multiple potential activities that will create stressors in MB
- Need vehicle for SAC to share collective opinions





THANK YOU

