

HOW TO AVOID MAKING A BAD PLANNING DECISION: LESSONS LEARNED FROM THE GRAND RIVER FEASIBILITY STUDY



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PRESENTERS AND ROLES



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WHAT IS YOUR ROLE/EXPERTISE?

Planner

Engineer

**NEPA
Documentation**

Project Manager

Economist

Real Estate

Biologist

Cultural Resources

**Other
(please explain in
chat box)**

Click on the Annotation option  on the left side of your screen and then use the Pencil Tool or checkmark to mark your response.



WHAT LEVEL OF EXPERIENCE DO YOU HAVE WITH 3X3X3 FEASIBILITY STUDY EXEMPTIONS?

**I am not sure what
an exemption is?**

**I am aware of the
exemption process**

**I have navigated
the process**

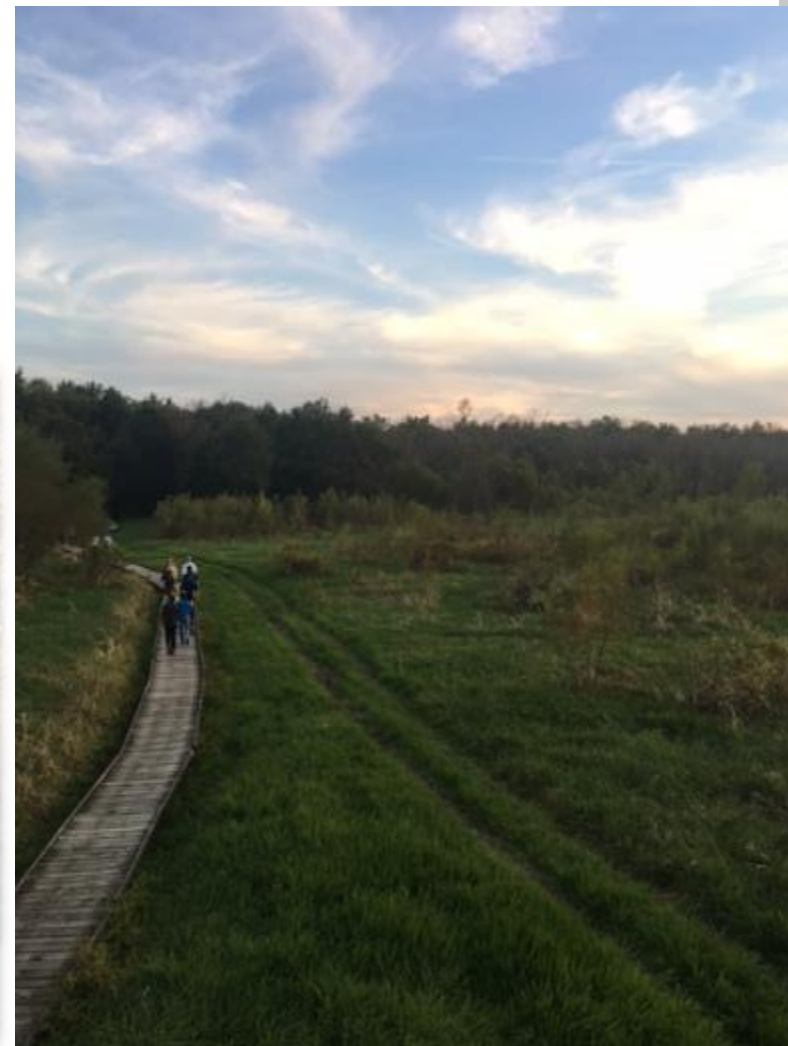
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AGENDA



1. References / Guidance
2. Background on the Grand River Basin Ecosystem Restoration Study
3. Overview of Exemption Decision-Making and Outcome
4. Lessons Learned





REFERENCES & APPLICABLE LAWS



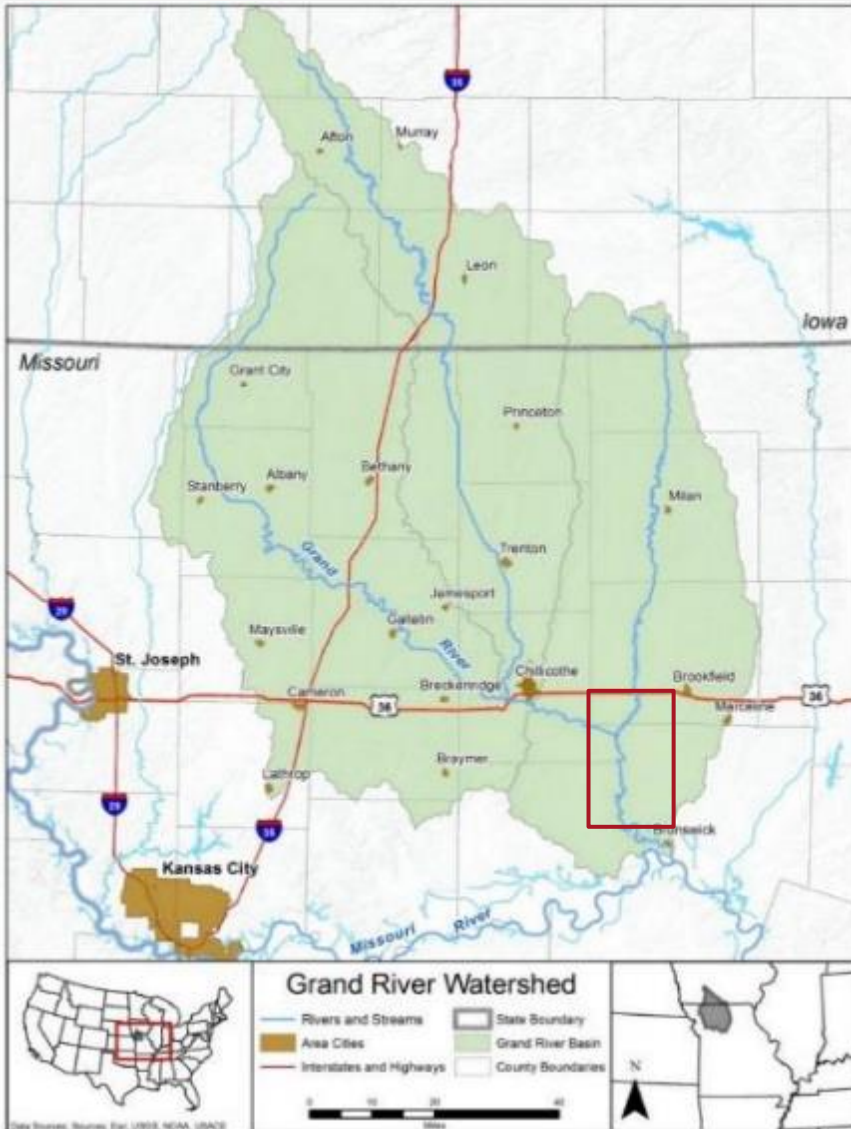
- ER 1105-2-100 “Planning Guidance Notebook”
- Section 1005 of WRRDA 2014, “Project Acceleration”
- Consolidation of Studies. Updated Implementation Guidance for Section 1002 of the Water Resources Reform and Development Act of 2014. 17 May 2015.
- Director's Policy Memorandum Civil Works Program 2018-05, Subject: Improving Efficiency and Effectiveness in USACE Civil Works Project Delivery (Planning Phase and Planning Activities). 3 May 2018
- Planning Manual Part II: Risk Informed Planning. IWR 2017-R-03. July 2017
- Water Resourced Development Act 2014
- ASA Policy Directive- Comprehensive Documentation of Benefits in Decision Document 5 Jan 2021
- PB 2012-04 “3x3x3 Rule Exemption Process”
- PB 2018-01(S), “Feasibility Study Milestones”

BOTTOM LINE UP FRONT

Some studies do not have enough data and information to make an informed planning decision. Early and continued coordination with the vertical team and sponsors is key to determining the right amount of engineering investment and identifying the need for an exemption.



GRAND RIVER BASIN

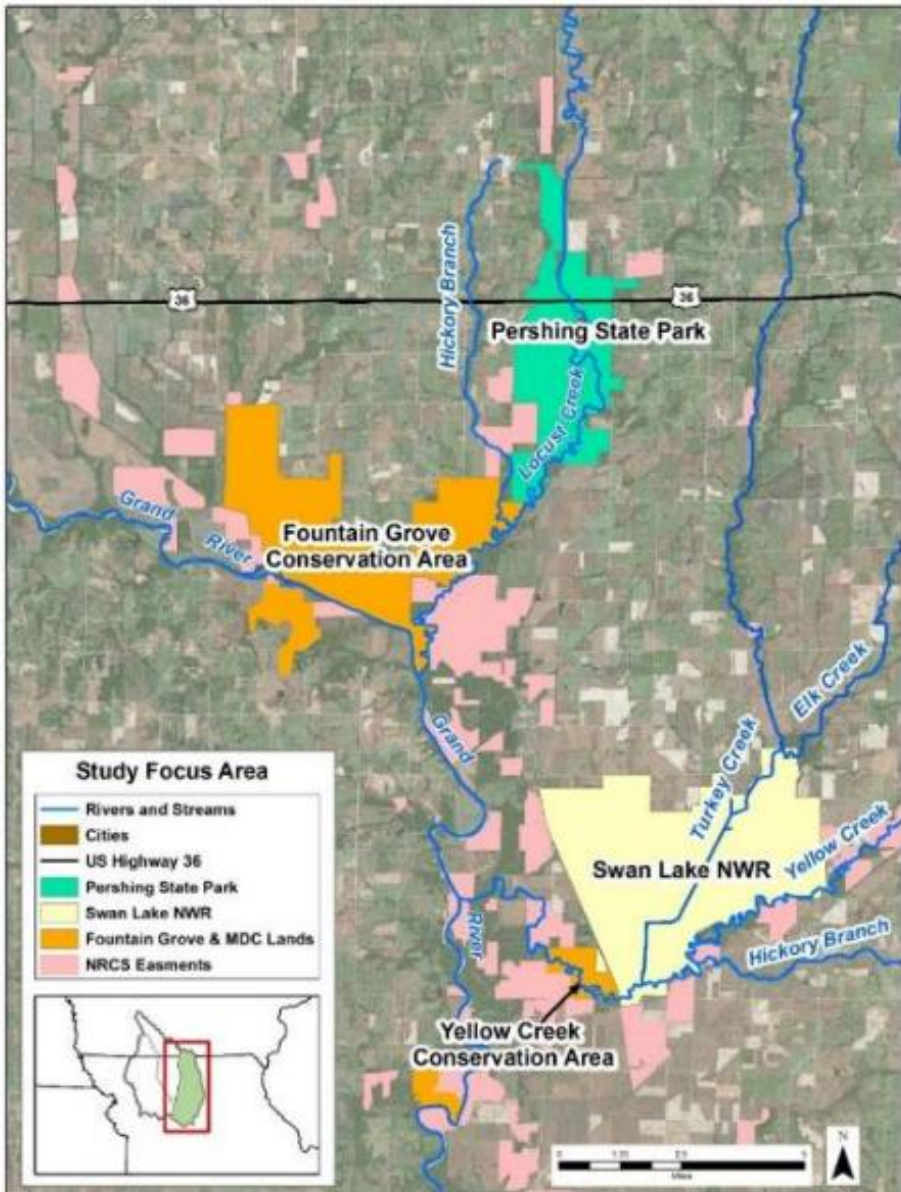


- Authorization was for whole basin
- Grand River Basin:
 - Drainage area of 7,900 Square miles
 - ~40 miles northeast of KC Missouri
 - Area size of Connecticut and Delaware combined
 - Historic river and floodplain corridor – was once Missouri River course
 - Major corridor of water and habitat resources used by migrant birds and river fishes for thousands of years



*** Little red box indicates area of photo on next slide

LOWER GRAND RIVER- FOCUS



- PDT narrowed down to Lower Grand River sub-basin
 - key habitat areas
 - important facilities
 - Infrastructure/highway
 - Most at risk
- First attempt to reduce scope- Agreed upon at Charette
- Three areas of formulation



PROBLEMS

- Upstream degradation
- Loss of farmland
- Stream bank erosion
- Widespread threats to infrastructure





PROBLEMS

- Extreme Sedimentation
- Excessive large woody debris
- Altered hydrology/
Increased flooding
duration and
magnitude
- Impacts to
infrastructure
- **LOSS OF HABITAT**





RIGHT SIZING YOUR STUDY PROS AND CONS



IG for Section 1001 of WRDA 2014 provides guidance on determining whether a study is too complex to be completed within three years or \$3M:

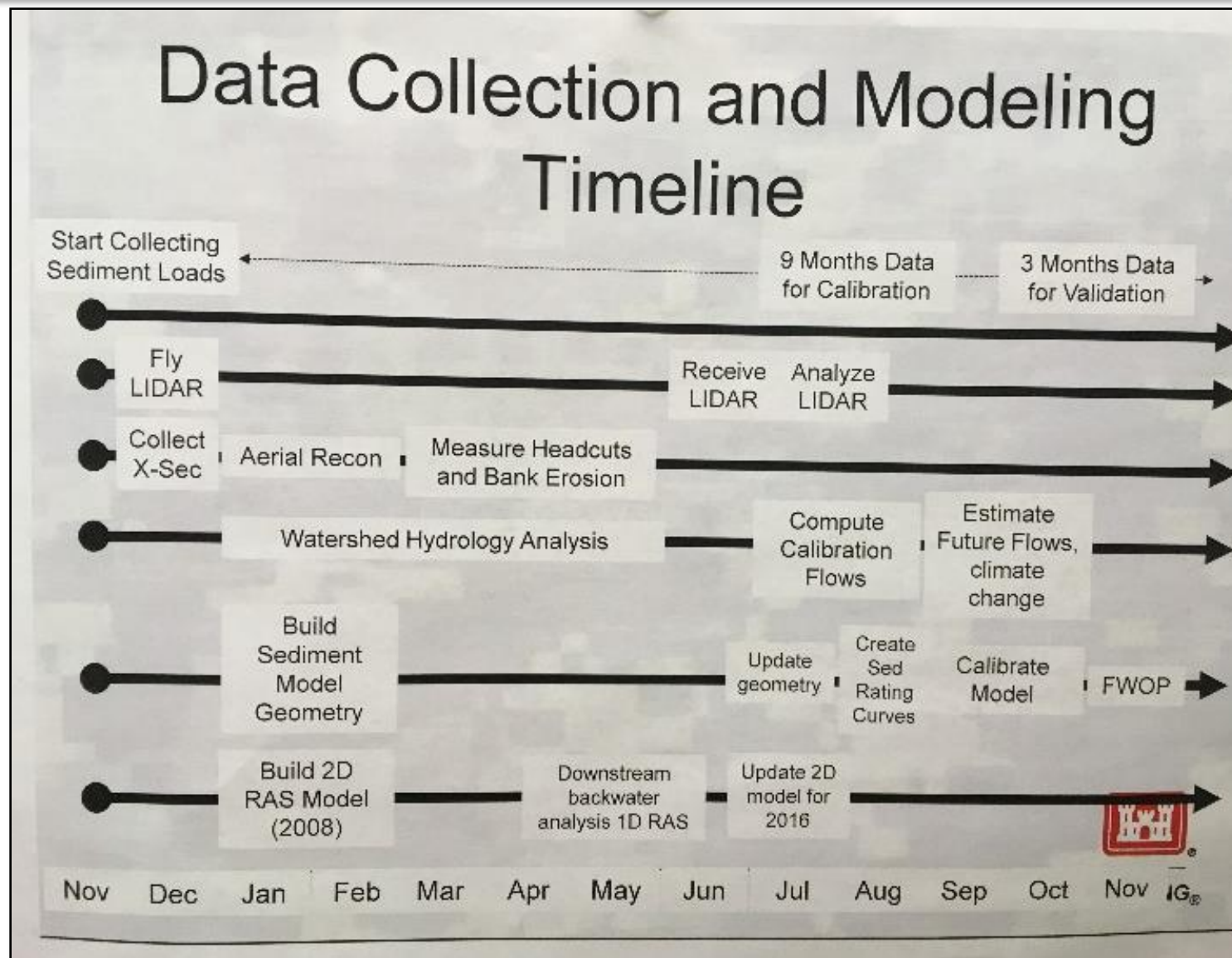
- Scoping Down to meet 3x3x3 requirements
- Restricting scope and analysis in order to try to make the schedule and budget also leaves benefits on the table
- When you have full authority scoping the study to achieve results efficiently and effectively you sometimes leave opportunities on the table- could lead to future studies/effort or they may never be realized
- In light of newest directives, this could be even more of a challenge
- Exemptions for certain projects are warranted

- a. The type, size, location, scope, and overall cost of the project;
- b. Whether the project will use any innovative design or construction techniques;
- c. Whether the project will require significant action by other federal, state, or local agencies;
- d. Whether there is significant public dispute as to the nature or effects of the project;
- e. Whether there is significant public dispute as to the economic or environmental costs or benefits of the project; and
- f. Other relevant issues.



EXEMPTION DECISION-MAKING

- Schedule of technical tasks presented at charrette and agreed to by vertical team
- Recognized schedule was high risk to 3x3x3 compliance
- Agreed this was necessary due to factors driving habitat degradation and lack of existing data for the basin
- Many known and unknown risks have been realized



BIG LESSONS LEARNED ON GRAND RIVER

- Acknowledging early on that engineering and developing models were essential to formulation- too much uncertainty to complete formulation – front-loaded schedule and engineering to provide more certainty in the decision at the TSP
- Consequences of not getting it right are additional cost and schedule requirements to address public and policy concerns
- Additional consequences may lead to post-authorization change reports and new authorization- know this from other studies
- Reduce the risk and uncertainty early on in your formulation and to invest in your engineering tools to support your decision-making
- Not applicable for all studies

Critical Path Schedule

Technical
work/Development
of Engineering
Models/Sediment

Critical Path Schedule																		
	FY16	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021
Task	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Feasibility Cost Share Agreement Signed																		
Planning Charrette																		
Technical work/Development of Engineering Models/Sediment																		
Modeling and comparison of Alternatives																		
Select Preferred Alternative																		
Compile/Review Draft Feasibility Report																		
Additional public engagement &RE Plan prior to draft report																		
Public Review of Draft Feasibility Report																		
Respond to Comments																		
Anslsysis of TSP																		
Confirm Agency Decision																		
Compile Final Feasibility Report/DQC and ATR																		
Route for and conduct Civil Works Review Board																		
Route for Signature from Chief of Engineers																		

Extra Time
Needed



AT WHAT POINT IN THE PLANNING PROCESS SHOULD AN EXEMPTION BE REQUESTED?

At the Charette

**At the TSP
Milestone**

**At the ADM
Milestone**

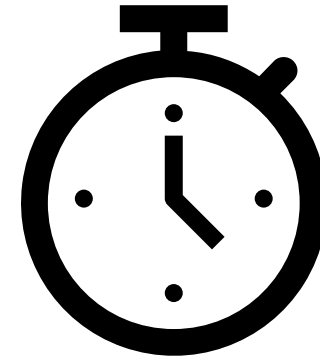
**When project runs
out of schedule
and/or funding**

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WHEN TO SUBMIT AN EXEMPTION REQUEST

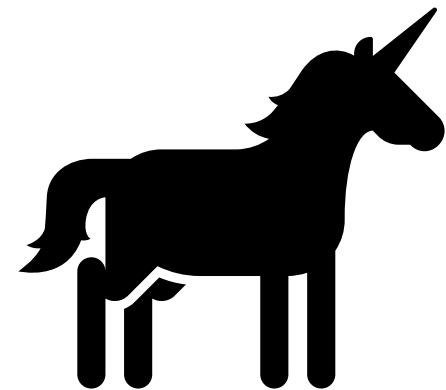
According to guidance (PB 2018-01)

“Any required policy waivers submitted to ASA(CW), including 3x3 exemption, LPP Waiver, etc.” should be submitted before the Agency Decision Milestone



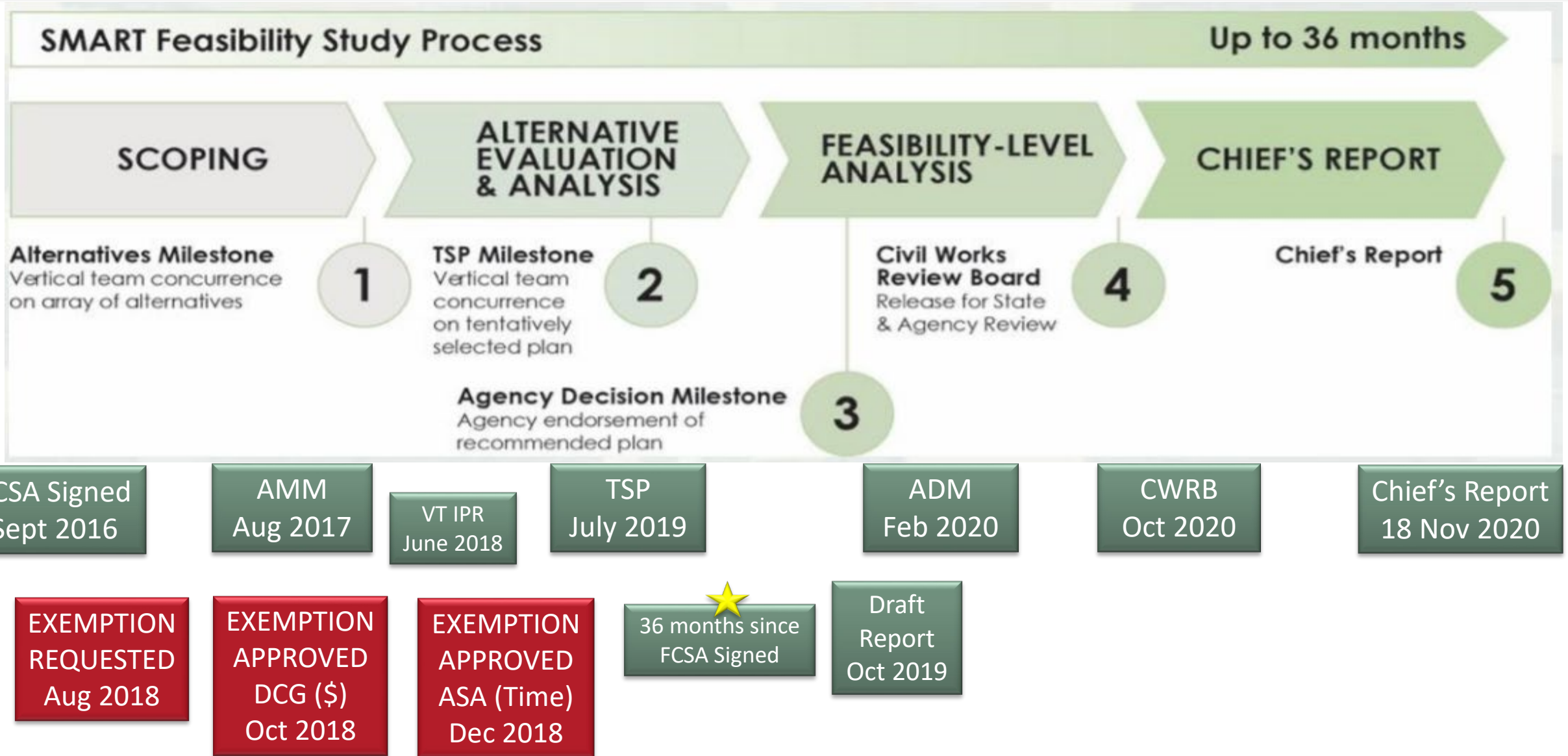
The right time for your project depends on:

- Vertical Team Alignment
- Current Planning Leadership
- Sponsor Support
- PDT confidence in what is really needed to get to completion – do not want to have a second request
- What level of detail you need to make your next planning decision





3X3X3 TIMELINES VS. GRAND RIVER ACTUAL SCHEDULE



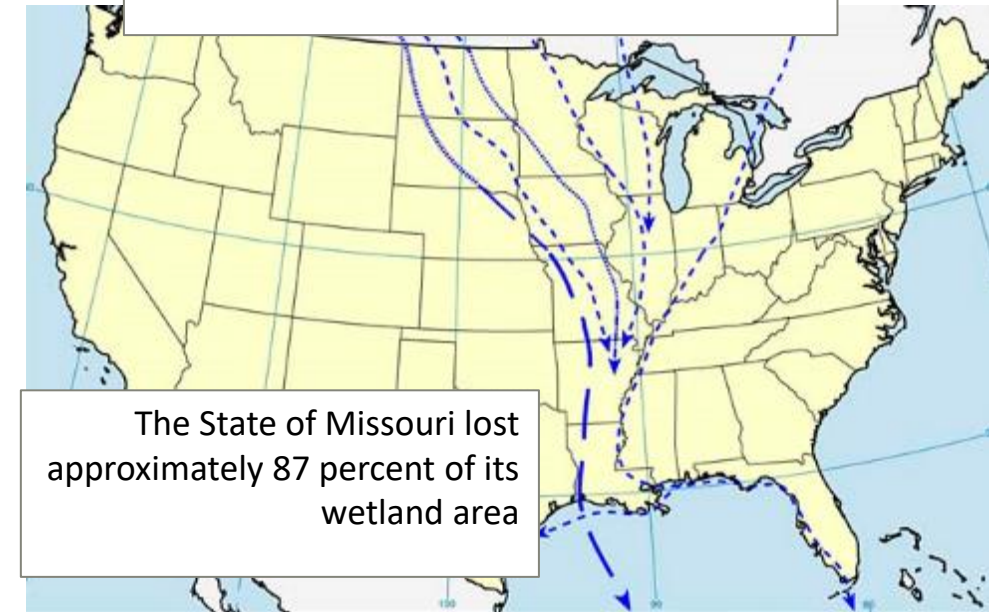


TIPS FOR EXEMPTION BRIEFING



- Highlight the Federal Interest: Even though it was confirmed at every milestone to date- it will be scrutinized during the exemption process
- Show what progress has been made and if there is a belief that solutions will be found at the end of the project
- Provide options or courses of action with recommendation to show thought that went into recommendation and what will be accomplished with different courses of action
- Helps to show if various courses of action were considered
- Explain what will happen if exemption is denied- impacts to feasibility and PED
- Use your Risk Register to show how the team tried to mitigate the risks
- Don't forget to add budget for time taken to prepare and brief the exemption

MISSISSIPPI FLYWAY





COURSE OF ACTION EVALUATION

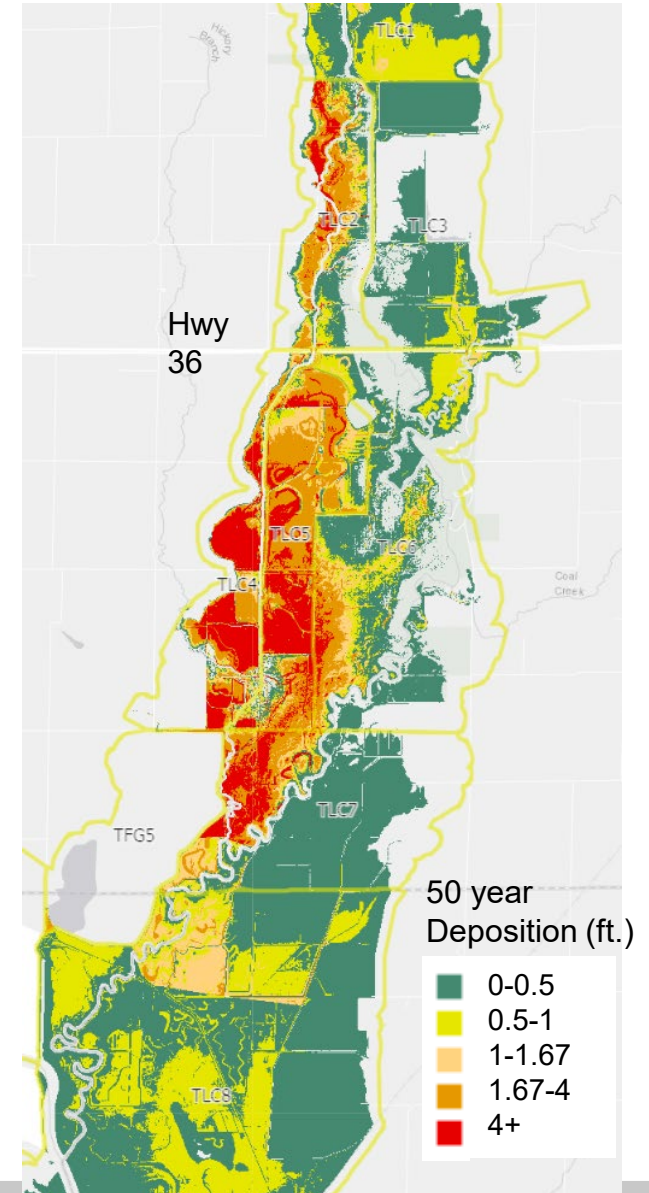
Key Project Risks	Additional Time and Budget		
	COA 1	COA 2 ★	COA 3
Restore remaining compressed study schedule and budget to complete Chief's Report	0 mo, \$0	10 mo, \$495K	10 mo \$495K
Additional collaboration with sponsors prior to selection of TSP	0 mo, \$0	0 mo, \$0	4 mo, \$190K
Additional Public Engagement Prior to Draft Report	0 mo, \$0	2 mo, \$90k	4 mo, \$140k
Additional Real Estate coordination effort prior to Draft Report	0 mo, \$0	2 mo \$30k (concurrent with public engagement)	2 mo \$30k (concurrent with public engagement)
Analysis of TSP	0 mo, \$0	2 mo, \$180k	4 mo, \$240k
ATR Timelines and Budget	0 mo, \$0	1 mo, \$100k	3 mo, \$200k
TOTAL Additional Time /Budget	0 mo/ \$0 Only results in Draft Report High risk of not getting Signed Chief's Report	15 mo, \$895K Buys down key high-risk tasks to medium risk	25 mo, \$1.295M Low Risk Schedule, buys down all risks to low
TOTAL PROJECT SCHEDULE/BUDGET	36 months, \$3M	51 mo, \$3.895M	61 mo, \$4.295M



EXEMPTION APPROVAL



- Exemption was approved which extended the deadline for a signed Chief's Report for an additional 15 months and increased the budget by \$895k
- Recuperated vertical team agreed upon time spent in data collection and model development so could complete formulation
- Timing of exemption and the need driving the exemption might not align- need to have discussions and record in MFRs vertical alignment so study can keep moving
- Without the modeling and analysis, the project would have had a bad planning decision with these potential consequences:
 - Increased PED costs
 - Post-authorization change or Reauthorization
 - Project could have made problem worse





DIVISION PERSPECTIVE ON EXEMPTION



- Leverage MSC Resources- We can provide experience and perspective to help develop/defend request
- Inform the various technical teams up the chain, often
- MSC Commanders may request a briefing prior to endorsing request
- Don't assume you'll receive Exemption Approval – If not, then what?
- Document to build your case and support your eventual request (Risk Register, MFRs, Issue Papers, etc.)
- Sponsor Engagement in request is very important and effective
- Things Happen
- 2nd Requests create extreme jeopardy – be sure the 1st time

LESSONS LEARNED POLICY

Policy is not always prescriptive and there may be inconsistencies. Our policies in some ways are purposefully vague – each environment is different, so policies are written generally. Functionally these policies may conflict

- When the team identifies a conflict in USACE policy – may need a senior leader to engage on how to interpret and resolve that conflict
- Grand River identified a potential legal/RE policy conflict developed issue papers and engaged Chief of RE
- Elevated for discussion at the ADM to resolve
Make sure you have the cross-functional review team involved and helping resolve these conflicts
- **TIP:** Get key vertical team members/decision-makers on site visits



LESSONS LEARNED- THE FINAL PRODUCTS

There are some policy required decision-documents that cannot be finalized till the end because they depend on having the engineering complete:

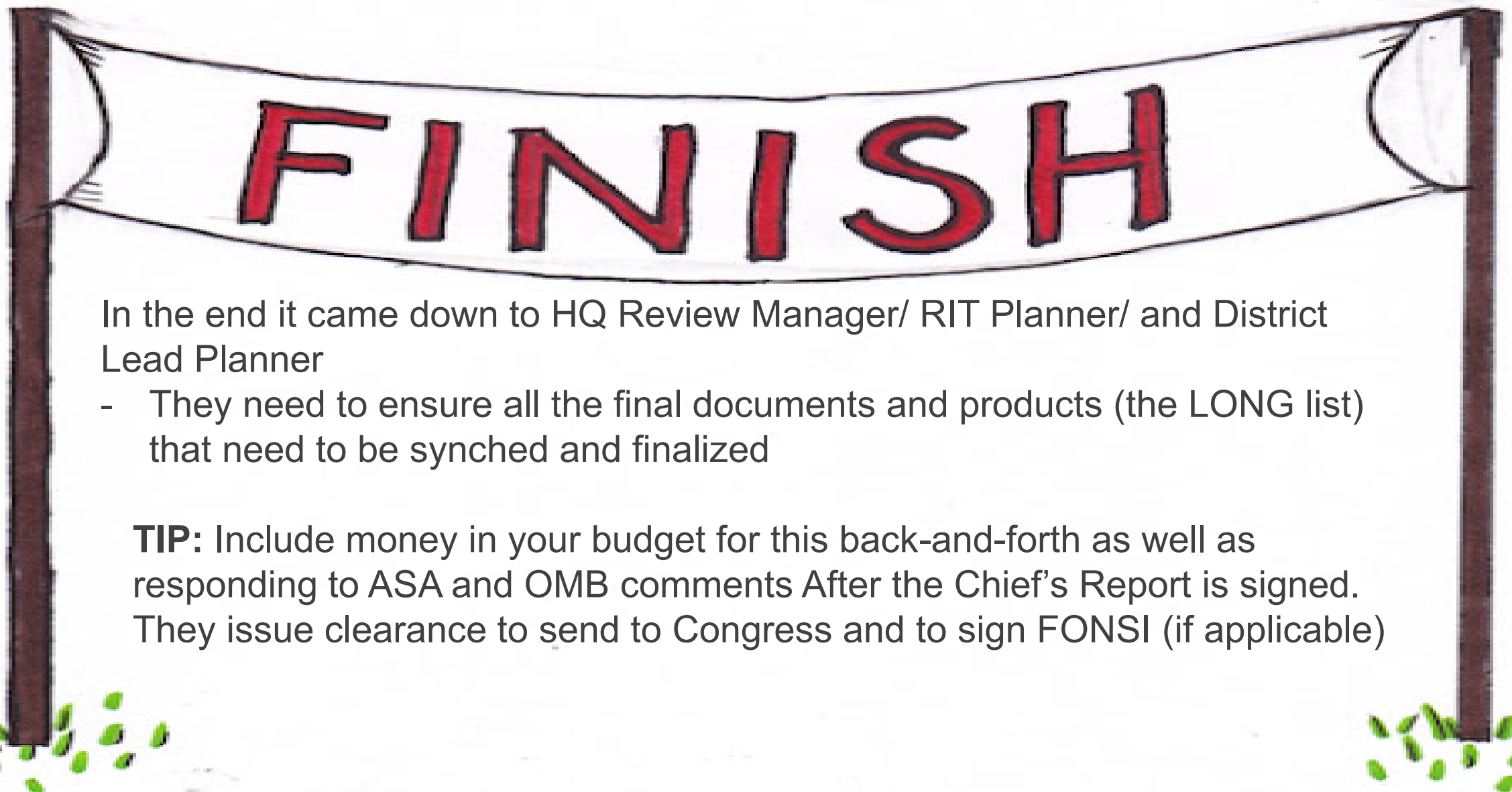
- RE Plan- need to know what properties are needed in final design
- Monitoring and Adaptive Management Plan- cannot say what you need to monitor till you have the details of the plan finalized
- OMRR&R Requirements- cannot determine what will need operation in maintenance until plan is finalized
- How risk and uncertainty were managed with the recommended plan

Document and articulate how the risk and uncertainties of the recommended plan were managed

You can use more detailed modeling, but it doesn't eliminate your uncertainty- but can get it to an acceptable level



GETTING OVER THE FINISH LINE



FINISH

In the end it came down to HQ Review Manager/ RIT Planner/ and District Lead Planner

- They need to ensure all the final documents and products (the LONG list) that need to be synched and finalized

TIP: Include money in your budget for this back-and-forth as well as responding to ASA and OMB comments After the Chief's Report is signed. They issue clearance to send to Congress and to sign FONSI (if applicable)

EXEMPTION OUTCOME –GRAND RIVER

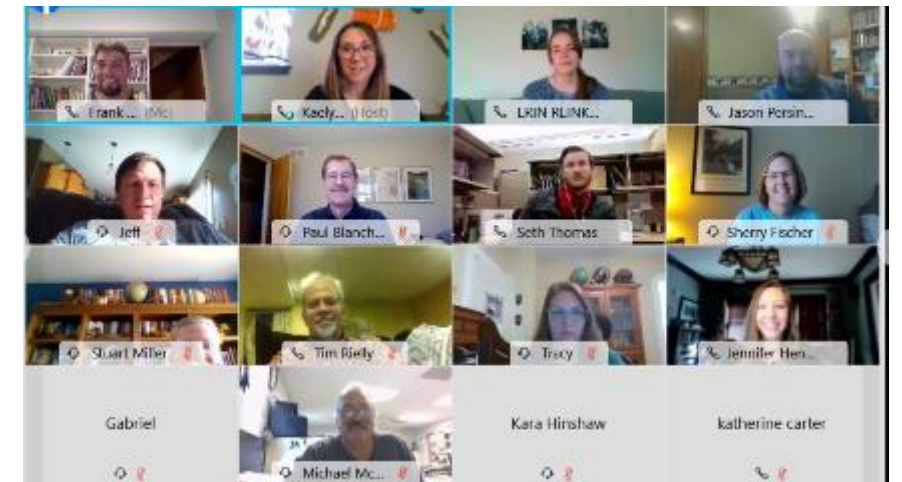
- Target was Chief's Briefing at end of November for signature by 1 Dec 2020
- HQ decided to crash the schedule and push briefing to 18 Nov 2020 in order to make it eligible for WRDA 2020



Project Authorization in the Consolidated Appropriations Act, 2021

6. IA, MO	Grand River Basin Eco- system Restora- tion	November 18, 2020	Federal: \$78,876,000 Non-Federal: \$42,471,000 Total: \$121,347,000
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TIP: If virtual have team members take individual photos- WebEx is not great for team photos



QUESTIONS?



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