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1	Milestone	Item	Task (Scoping Choice or Event)	Risk and its cause	Risk Type	Consequence	Consequence rating	Evidence for Consequence rating	Likelihood rating	Evidence for likelihood rating	Uncertainty rating	Risk Rating	Risk Management Options	Conclusion/ Recommendation
3		1- PFP	Confirm Federal Interest in Project	Delay completion of Milestone 1	Study Risk (study delay)	Federal support in completing project would be compromised. If Milestone 1 delayed, rest of milestones delayed.	High	Law and policy prohibit Army Corps partnering on projects without Federal Interest	None	Project part of original CERP program, part of original Everglades footprint, Endangered Species present, and National Historic and Scenic River designated in project area.	None	Low	"Decision Point Call to confirm Federal interest" as part of vertical team alignment. Find past documentation of Federal Interest and include in Report Synopsis.	
4		2-PFP-01	Fewer alternatives with extensive modeling	A fewer number of detailed alternatives will be evaluated with extensive modeling because of time limitations (e.g., 3 vs. 10 alternatives in the final array) . There may be concern as to whether the Selected Plan is the optimized plan, and that an evaluation of a broader array of alternatives may have identified a different cost-effective alternative that was not evaluated in detail.	Study Risk (analytical error, Poor planning decision)	Loss of support for project.	High	Past studies experience with Central Everglades Planning Project (CEPP)	Medium	Past studies experience with CEPP	High	High	Use previous plan formulation (loxahatchee/North Palm Beach and Restoration Strategies) and screening of a broad range of alternatives (Completed between 2005-2010). Document in Report Synopsis of measures, screening tools, results, alternatives. Confirm with implementing and partner agencies that the prior plan formulation still has their buy-in.	
5		3- PFP-02	Following or deviating from the Draft Programmatic Regulation (Pro-Regs) Guidance Memos (GMs)	Potential deviation from Draft Pro-Regs GMs (e.g., will not evaluate last added increment -- all alternatives will build off the future without project conditions)	Study Risk (study delay and cost)	Study delays due to additional analysis requirements to comply with the memos, or for getting approvals where needed to not do additional analyses. Also, majority of stakeholders are frustrated by delays resulting from Draft GMs.	Medium	Past studies and experience gaining approvals for exceptions for CEPP and C-111 Spreader Canal	None	Prior precedence set with C-111 Spreader Canal and CEPP.	Low	None		
6		4- PFP-03	Screening of management measures (PREVIOUSLY WORDED AS "Sources of water")	Study will focus on storing water in the watershed to meet restoration needs and will not look to Lake Okeechobee as an additional source of water. Although regulatory releases may be captured for storage.	Study Risk (Study cost and delays), Outcome Risk (project performance risk)	water availability within the watershed may not be enough to provide all of the desired restoration benefits.	Medium	Prior Loxahatchee planning effort identified multiple sources required to provide water Loxahatchee River.	Low	Prior planning documented considerable amount of excess discharge to tide.	Low	Low	Discuss Lake as part of management measure identification and screening process. Use reliable, current ecological information and other reliable sources of information for determining if this management option should be carried forward for consideration as an Alternative. Write-up will explain constraints on availability of Lake water.	
7		5-PFP-04a	Future w/o Assumptions	SFWMD Loxahatchee River Project expedited constructed features (G-160 and G-161) will not be included in the future without project, and instead included in some or all of the with project alternatives	Study Risk (analytical error)	Complicates existing conditions and future without, with poten.tial to underestimate ecosystem restoration benefits	Medium	Prior planning effort identified benefits of features. 2005 FSM Guidance provided feedback on structures.	Low	Modeling is not difficult. C-111 SC and Biscayne Bay had features that were constructed yet included in Future with project.	low	Low	Document modeling assumptions, and benefits of project features during plan formulation.	
8		5-PFP-04d			Study Risk (delays)	Cost sharing questions related to policies/guidance.	Medium	Key policy compliance step in USACE project planning.	High	Major policy evaluation in all prior CERP projects	high	High	Documentation of constructed feature importance to the restoration success of the project. Need to document their lift to the project.	
9		6-PFP-06	Formulation Strategy	Formulation will focus primarily on restoration objectives and account for ancillary water supply/flood damage risk reduction benefits	Study Risk (support for project)	Additional modeling and evaluation time and cost to address stakeholder requests for flood damage reduction and water supply.	Medium	Issue has been raised, but we will be counting the benefits.	High	Prior project planning	Low	High	Effective coordination with all stakeholders on scope (orientation meeting to manage expectations). If there are secondary water supply/flood risk reduction benefits, they will be documented.	
10		7-ENV	Use existing tools to screen management measures	Original assessment for Wetland Rapid Assessment Procedures (WRAP) baseline was 2004-2007. Specific areas have changed. May alter benefits calculations from prior modeling.	Study risk (analytic error)	Underestimating benefits	Low	Small number of areas have experience changed	Low	Recent coordination with watershed stakeholders indicate only a few areas have experienced change.	Medium	Low	Revisit assessments in known areas that have experienced changed due to actions taken by other entities	
11		8-ENV	Develop method (evaluation criteria) to account for importance of wild and scenic river which has smaller acreage compared to watershed.	Discrepency between acreages and not correctly identifying importance of different natural resource areas. Not getting planning model certification.	Study Risk (poor planning decision and study delay)	Alternatives that benefit riverine may not be identified as cost effective. Study delay until model certified.	High	Previous planning identified this as an issue to address. Depending on methodology, it may need to be reviewed by eco-pcx, which could result in study delay.	High	If due consideration not given to loxahatchee wild and scenic river, the alternatives selected may not benefit the river which is smaller in acreage.	Low	High	Early coordination of updated benefits model methodology prior to certification.	

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12		9-Env-03a	A. Reliance on and availability of models.	Not able to model tributary flows into Loxahatchee River	Study Risk (Analytical error)	Effectively capture all benefits of each alternative.	Medium	previous planning identified this a challenge specific to flow way 3	Medium	There are accepted and certified models from 10 yrs of work already but models don't include all tributaries that might be affected by alternatives.	Medium	Medium	Use qualitative interpretation of prior modeling and analysis effort. If lift could be potentially signficant and justify this alternative, do modeling of benefits specific to the one alternative by procuring modeling contract or dedicating IMC staff time to learning how to use the model and running the analysis during additional analysis after TSP selection.	
13		10-Env-03b	Rely on previously developed performance measures and targets.	Potential to miss some Valued Ecosystem Components (e.g., oligohaline zone - fish nursery and valisneria) in the project area. Limited time to develop new performance measures.	Study Risk (poor planning decision)	Less information to justify project alternatives. Lack of stakeholder support. Leaving benefits on the table.	Low	Watershed, Flood Plain and Connectivitiy have been defined, reviewed by RECOVER, and used in past LRWRP planning. Only Vallisneria missing.	Medium	Development of additional performance measures and ecological models like the Vallisneria model would take more time and likely can't be done without delay.	Low	Low	Discuss available models and tools to use in benefits vs. describing additional performance lift. Models that are ready will be considered for use.	
14		11-Env-04	Using water from L-8 basin	water quality compliance risk	Study Risk (benefits), Implementation Risk (Schedule and cost of implementation), Outcome Risk (hazard risk)	Flowing nutrients through Grassy Waters Preserve (GWP) and causing aquatic nuisance vegetation. Could affect state water quality certification, resulting in an unimplementable project.	High	Issue identified in prior planning effort and likely to occur with Lake Okeechobee water supply flows routing through GWP.	Medium	LO water supply releases are still likely to occur during dry season.	Low	High	Evaluate water quality effects to identify which alternatives may have less risk. Develop operational measures/alternatives to reduce risk.	
15		12-Env-05	Water quality criteria	Project water quality evaluation criteria may need to be updated	Study Risk (study delays), Implementation Risk (schedule and cost of implementation)	Project won't have information needed to formulate measures to reduce water quality impacts. Water quality permitting process could take more time and delay project.	Medium	Water quality rules for this area are different than Everglades.	Low	FDEP knows what criteria should be	Low	Low	Early Coordination of FDEP to identify water quality criteria and issues to use in plan formulation	
16		13-Env-06	Rely on previously developed water quality modeling and analysis	Water quality effects are uncertaint for new alternatives	Study Risk (Analytical error,), Implementation (cost and schedule)	Uncertainty in water quality analysis causes delays in permiting to do additional modeling and/or increased cost for water quality features to mitigate potential effects	High	Prior CERP project water quality analyses and permitting	Medium	Results of previous alternative analyses maybe similar enough to new alternative analyses.	Medium	High	Procure water quality modeling contract or new model. Adjust alternatives to better fit with existing water quality analysis. USACE/SFWMD modeling staff do modeling.	
17		14-Eng-03	Incorporation of new Technologies	Understanding effectivenes of Aquifer Storage and Recovery (ASR) storage not yet identified in this location.	Risk Type (Analytical error), Outcome (performance)	Without adequate storage the project may not be justified or benefits maybe limited.	High	Past planning identifed that storage, location, and delivery effect benefits to river required more storage.	Medium	Existing subsurface data indicates potential for ASR.	Medium	High	Desktop analysis of ASR integrated with reservoir to demonstrate capability. Gather additional site specific data (exploratory bore hole during PED).	
18		15-Eng-05	Engineering Modeling Certification	Model S2DMM needs to be certified for 1 time use. The Lower East Coast Subregional (LECSR) Modflow model has been certified.	Risk Type (Study delay)	Going through certification process for any new tool(s) may take an extended period of time, exceeding project schedule, or may not be certified/approved at all which would lead to the PIR not being approved or delayed.	High	Previous project experiences	Low	Good documentation of model is available and examples of its use.	Low	Medium	Compile model documentation and include examples of its use. Seek expedited review and certification for 1 time use.	
19		16-Eng-06	Use existing models, model runs, and analysis to support plan formulation (e.g., LECSR and S2DMM, RMA and RMA-2, WAM, ASR Regional Study Groundwater Flow Model)	May not be able to quantify all hydrological changes due to project alternatives in different parts of the study area. Pending rescoping of project.	Study Risk (analytical error), Implementation Risk (lack stakeholder support)	A. Level of resolution/assumptions of existing (H&H) models/detailed modeling information related to hydraulic design may not be available for all management measures. B. Loss of project support with respect to flood damage risk reduction and water supplyanalysis. C. Schedule and cost increase to do additional detailed modeling earlier in the planning process.	High	based on past planning experience on this project, stakeholders were very interested in flood control and water supply and wanted detail early on in the plan formulation process	Medium	based on prior planning experience Loxahatchee project this is likely to occur.	Low	High	Early and clear coordination of project scope and level analysis at each stage of planning with all stakeholders. Clear decision - management plan on when and how much modeling/detailed design analysis will occur. Move from less detail to more detail during PED. During planning, create inset model that uses approved code and good calibration and verification for aquifer storage and recovery.	
20		17-Eng	Develop new model tools for screening of combination of measures and/or alternatives	Increased schedule and cost to planning. Could complicate plan formulation and modeling	Study risk (delay in schedule; increased cost)	Increased cost of study and longer time to complete planning process. Need waiver to SMART Planning budget and time criteria, which could add time to schedule and jeopardize Federal support.	High	Based on experience in developing new tools for CERP planning studies.	Low	based on prior planning experience Loxahatchee project.	Medium	Medium	Clear coordination with stakeholders to limit scope on new tool development to address high priority issues.	
21		18-Eng-07	Synthesis and evaluation of existing model output	Alternatives (management measures for flow-way 3) could change and previous modeling can't be used.	Study risk (analytic error); Study risk (delay); Study risk (cost increase)	Need to rerun modeling of new flow-way 3 alternative causing schedule delay and increased cost.	High	Based on experience with using model.	Low	based on prior planning experience Loxahatchee project.	Medium	Medium	clear communication regarding existing flow way 3 options and good stakeholder engagement	

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22		19-SE-03	Future Without Condition - Land Use Projections	Use CERP 0 land use projections	Study Risk	Potential to have outdated info which could impact water demand and land use pattern	Low	due to recent economy, the economy has not precipitated substantial changes	Low	due to economy has not precipitated any changes	Low	Low	Coordinate with District geographic to get updates to FLUCCS.	
23		20-SE-01	Future Without Conditions - Water Supply Demand Projections	2050 water demand projections are based upon the baseline 2011 water demand projections, instead of more recent updated projections from Lower East Coast (LEC) and Upper East Coast (UEC) Water Supply Plan (WSPs).	Study Risk(analytic error)/Outcome Risk	If outdated plans are used, District water supply plans could differ in the future, leading to an under or over-estimation of water being withdrawn from the Biscayne Aquifer.	Low	State rules capping withdrawals has been in place since 2006, and any changes would more than likely occur late in the study period and be negligible.	Medium	District water supply plans are updated every five years. Most recent LEC plan was released in 2013. UEC WSP will be released in 2016, but demand projections will be available in 2015.	Medium	Low	Ensure that project team has most up to date demands from currently approved plans. This is the most likely scenario.	Coordinate with District Water Supply Bureau to ensure that most recent approved demand projections are provided to CERP team.
24		21-RE-03	Land Ownership Constraints	Real Estate: Absence of full ownership information. Full impact on existing land use conditions	Study risk (analytic error, poor planning decision)	Increase risk of flooding private lands. Delay in implementation. Increased costs to relocate affected parties.	High	Based on prior CERP studies	Low	past studies have indicated that this doesn't always occur.	High	Medium	Upfront coordination with local sponsor, state and local governments responsible land ownership/real estate to identify real estate ownership; or Go ahead with current information level and risk into TSP phase.	

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3		1-PFP-05	*9/18/2014	Savings Clause analysis of flood protection.	Not using Design Storm/SPF Analysis.	Study Risk (analytical error)	Delays to project schedule and increased schedule budget to address requests for additional detailed modeling.	High	need stakeholder support on level of analysis at each phase of project, could be hard to get through the regulatory process.	High		Low	High	Apply same Period of Record (POR) model for Saving Clause as used for plan formulation. This approach is consistent with CERP GM#3). 2. Analyze primary/secondary canal stages and a representative sample of lower east coast (LEC) reference locations for final array of alternatives (including TSP), to demonstrate potential impacts to the level of service for flood protection within POR. 3. Use a more limited of adjacent canal stages and seepage losses across levee during preliminary screening modeling. If this approach can be demonstrated as a suitable surrogate based on early RSM-GL modeling results. 4. Commit to additional monitoring during implementation in select areas of potential impact.but could be reduced to Medium by committing to add a contingency plan to run more detailed analysis of TSP during the PIR phase. This could impact schedule. Could commit to additional analysis during detailed design. Could commit to additional monitoring during implementation. Also want to develop a modeling communication plan to educate stakeholders		
4		13-RE-01	*9/19/2014	Savings Clause Analysis	Flood Protection Savings Clause Issues/Takings issues: Level of Analysis/Level of Detail. Inability to identify potential impacts to private properties outside the project footprint early on in planning process.	Study Risk (study delays)	delays in approval to do additional modeling/ analysis to increase confidence in potential impacts.	High	violating savings clause and flooding of private property	Medium	depends on alternatives and TSP	Medium	High	Develop Real estate mitigation plan based on analysis (additional modeling) described with TSP risk 01-PFP-05 before the agency decision milestone to identify private lands that are at risk and require mitigation.		
5		16-CR-03	*9/19/2014	Cultural Resources Survey	Wait until the TSP to initiate Phase 1 Survey. Would not be compliant with policy found in PIR Level of Detail Memo dated June 06, 2008. If sites are found, mitigation is 100% Federal responsibility up to the 1% level specified in Section 7A of Public Law 93-291 See page C-36 of ER 1105-2-100 for further information regarding exceptions and Project Cooperation Agreement (PCA).	implementation risk (cost and schedule)	increased costs to mitigate siginficant cultural resourc issues during detailed design or construction. May not get SHPO concurrence and therefore vertical team approval.	high	Requirements to modify design or relocate human remains can be high.	Medium	Known cultural resource area. Past experience on projects running into this issue during construction due to survey information coming in late.	Medium	High	Early coordination with SHPO. Develop and use model to narrow down Phase I testing of cultural resources due to lack of Phase I surveys conducted in the area of potential effect, expected to take 7-months.		
6		2-PFP-08	*9/18/2014	Climate Change - Sea Level Rise	Using one sea-level rise scenario to evaluate all project alternatives and then testing the TSP on the other two curves. NOTE: I DO NOT KNOW WHETHER WE WILL PURSUE THE STATIC APPROACH FOR LRWRP	Study Risk (poor planning decision)	Additional sea-level rise change curves indicate project benefits are significantly reduced. if EC requires significant amount of time and effort modeling various sea level rise scenarios. Requires evaluation of all alternatives -- impacts schedule.	Medium	Portion of project benefits affected by sea-level rise is low; however, nationally signicant portion of project area is at risk. objectives of project are consistent with mitigating for sea level rise.	Low	reviews not likely to require substantial changes to plan formulation. Will have substantial public involvement and frequent vertical team reviews.	Medium	Low	Present a narrative and GIS based evaluation of sea level rise scenarios on the TSP. Include an explanation of how formulation and plan selection would not be impacted by sea level rise.		
7		7-PFP-11	*9/18/2014	State Rulemaking	For determining Water Made Available, we may perform less detailed analysis of IOR and NAI; Methodology has not been fully developed	Implementation (Delays)	While adequate for the PIR, delay of implementation because level of detail may not be adequate for required State rule making.	Low	for PIR; Medium for Rule Making - not required until ready to implementation.	Low	Not required for PIR	Low	Low	None identified		
8		12-Eng-04	*9/19/2014	Reduced Level of Design	Reduced level of operational detail regarding how facilities will operate together	Implementation (redesign and cost increase)	additional features to accurately operate to achieve goals.Plan may call for a specific feature based on assumptions, where design may require different size for actual	Medium	Previous project adjustments to structures to move water have had great increases in costs (picayune strand)	Low	We have a lot of information on structures needed for this project.	Low	Low	Provide numerous iterations between engineering and operational aspects of the project.		
9		3-PFP-09	*9/18/2014	Climate Change	Accurately predicting climate change effects on rainfall and hydrology, and saltwater intrusion in the aquifer.	Study Risk (analytical error) and Outcome Risk (project performance)	Under- or over-estimating the amount of water available for the environment, and not achieving actual restoration benefits during implementation	Medium	recent years 2000-2014 have seen a higher frequency of dry years, and extreme rainfall events.	Medium	recent years 2000-2014 have seen a higher frequency of dry years, and extreme rainfall events.	Low	Medium	Design structures that may alleviate or have the ability to integrate greater operational flexibility. Utilize the POR analysis for extreme events (dry and wet years) to describe impacts on TSP if those conditions become more frequent. We have pro Regs for sea level rise but not for climate change.		
10		4-PFP-10	*9/18/2014	Development of BA/BO/CAR	Reduced timeframe may constrain development of BA/BO/CAR	Study Risk (study delays)	May not make schedule; uncertainty may result in leaning toward higher impact rating.	High	prior experience is that trust resource agencies must take conservative approach in estimating impacts with less information.	Low	Agency management for USFWS and FWCC support the schedule	Low	Medium	Get commitment from USFWS that they can meet this accelerated schedule.		

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11		8-PFP-12	*9/18/2014	Savings Clause Analysis	Limited Level of detail for evaluating LEC water supply impacts (Savings Clause)	Study Risk (delay	Request for more modeling and study delay. Stakeholders may not be satisfied that this has been adequately evaluated at this milestone.	High	if unmitigated	Low	law assures that there will be no impacts	Medium	Medium	Use information from LECWSP and/or conduct higher level basin water availability assessment. Further detail and analysis will be conducted ahead of Agency Decision Milestone.		
12		9-Env-01	*9/19/2014	Communication/ Expedited BO/BA & other detailed analysis	Potential for limited review of natural resources when developing the BO, BA or other detailed analyses.	Study Risk (study delays)	Less detailed assessment of potential impacts to habitat and wildlife which could lead to identifying an incorrect plan or impacting T&E species.	Medium	There has been initial coordination on this project in the past. We have several planning aid letters through 2006	Medium	in past experience we have found ways to reduce this problem. Make sure to do the mitigation to have medium likelihood.	Low	Medium	Use information from prior planning aid letters. Coordinate early often with FWS/FWC on trust resource issues, how to screen measures to address their concerns, and evaluate alternatives that address their concerns		
13		10-Eng-01	*9/19/2014	Data for Design	Reduced design data acquired.	Implementation (redesign and cost increase)	Increased design assumptions resulting in potential cost and schedule increases (i.e. subsurface investigations, topo and hydro data higher contingency for cost estimates, over/under design of features, over predict/under predict costs, can't address construction impacts adequately)	Medium	Additional components not in previous formulation.	Medium	Florida Geology is highly variable, affecting physical characteristics of water (flow, seepage, groundwater)	Low	Medium	Use existing data and studies to reduce risk. Identify areas where spot data (limited additional data) or desk top analysis may be useful. Capture any remaining uncertainties in the contingencies.		
14		11-Eng-08	*9/19/2014	Modeling Quality Assurance and Control - not waiting for full IMC review of modeling.	Errors could be missed by not waiting for full Interagency Modeling Center review of modeling which takes a long-time to complete due to its thorough process.	study risk (analytical error)	Independent quality review may be decreased which could lead to errors being missed.	Low	innormal process, it rarely becomes a game changer.	High		Low	Medium	Complete modeling in collaboration with USACE and SFWMD technical experts. Include USACE IMC technical experts on the Agency Technical Review Team.		
15		14-CR-01	*9/19/2014	Contract Logistics for Phase I Cultural Resources Survey	Any contract over $100,000 has to go to SAD for approval. The length of time it takes for USACE Contracting could complicate or delay the project schedule.	Study risk (delay)	Contracts delay result of surveys. TSP pushed out until complete.	Medium	Time	Medium	Knowldege from previous experience with contracting	Low	Medium	1. utilize multiple smaller contracts.		
16		15-CR-02	*9/19/2014	Using Available Cultural Resource Surveys	Not enough existing work (i.e., a previous road or levee survey may be available but would only include a linear survey and nothing surveyed outside of the linear transect) 1. Inadequate research of previous cultural resource surveys (and recorded sites) 2. Determine if survey is adequate for the undertaking	Study risk (delay)	Delay TSP or agency decision until cultural resources are more certain and address SHPO concerns	Low	implementing contract assessment to provide more information	High	because the study hasn't been completed so that it is an unknown at this time.	Low	Medium	implementing contract assessment to provide more information		
17		17-CR-04	*9/19/2014	Focus the Cultural Resource Testing	Develop and use model to narrow down Phase I testing of cultural resources due to lack of Phase I surveys conducted in the area of potential effect	Study Risk (delay)	Additional analysis needed because model is not accepted by SHPO and Tribes on Model	High	There is a need to test the entire area which would take too long for schedule.	Low	Methodology Acceptance.	Low	Medium	USACE Arch. to use same methodology developed for Three Forks Marsh and based on the CERP Survey Strategy (very successful) which reduced survey area, time and cost to complete. The goal is to MAXIMIZE findings of a Phase 1 survey given limited time. If culturally sensitive material is located, avoidance is the first choice (and if on Tribal Lands, NAGPRA applies). FEDS have 100% cost responsibility for mitigation up to 1% of project cost, then it is a shared responsibility unless there is a PAC in place (ER 1105-2-100). Inundation is considered an adverse effect to potentially eligible sites AND Human Remains		
18		18-CR-05	*9/19/2014	Target the Cultural Resource Testing	Develop and use model to narrow down Phase I testing of cultural resources due to lack of Phase I surveys conducted in the area of potential effect		Possibility of missing Significant sites, which will lead to mitigation costs.	Low	Because it will not be known until construction.	High	sites are missed	Low	Medium	USACE Arch. to use same methodology developed for Three Forks Marsh based on CERP Survey Strategy (very successful) which reduced survey area, time and cost to complete. If culturally sensitive material is located, avoidance is the first choice (and if on Federal Lands, NAGPRA applies).FEDS have 100% cost responsibility for mitigation up to 1% of project cost, then it is a shared responsibility unless there is a PAC in place (ER 1105-2-100). Inundation is considered an adverse effect to potentially eligible sites AND Human Remains		

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19		20-ENV-	*9/19/2014	Optimization of Reservoir Operations to determine benefits	Current tools are limited in the capability of optimizing operations of storage features to improve achievement of performance measure targets	Outcome (project peroformance)	Benefits of project are not optimized as high as could be.	Medium	Optimizing operations with additional flexibility added by project can improve restoration benefits. IN addition, there is some uncertainty with restoration response that might point towards additional improvements through operations to be achieved during implementation.	Medium	We have good understanding of ecology and hydrology, but will likely need to test operations	Medium	Medium	Characterize uncertainty in benefits calculations in qualitative way. build in flexibility to operations plans and NEPA coverage to allow for adaptive management tests to improve operations during implementation		

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3		1-PFP-07	18-Sep-14	Concurrent Reviews	Concurrent 45 day reviews for IEPR, SAD/HQ/ASA and Public instead of sequential review.	Study Risk (delay)	IEPR could identify something that requires substantial change that would require another public review, thereby impacting schedule.	High	based on past experience, these reviews have impacted schedule.	Low	based on experience, reviews not likely to require substantial changes to plan formulation. Will have substantial public involvement and frequent vertical team reviews.	Low	Medium	Conduct multiple IPRs to minimize the chance of problems and issues being overlooked, and a more refined product being delivered to SAD and HQ at the time of public review.				
4		2-Env-07	19-Sep-14	HTRW	Expedited schedule impacts ability to complete HTRW site surveys	Study Risk (Study Cost Increase), Implementation Risk (Schedule and Cost of Implementation)	Cost of remediation could potentially be significant, resulting in high contingency costs and project costs	High	cost of remediation	Low	because of work already done	Low	Medium	Planning will consider siting of project components on lands already purchased by the State which have already undergone thorough HTRW surveys. Some of these lands have identified problems. Features should be located on low risk sites which are already identified and mapped.				
5		3-Env-08	19-Sep-14	Agricultural Chemicals	Several areas that might be sites for project features, or areas to be restored are former agricultural lands	Study Risk (Study Cost Increase), Implementation Risk (Schedule and Cost of Implementation)	Cost of remediation could potentially be significant, resulting in high contingency costs and project costs	High	existence of ag contaminated soils in IRL-S	low	former orange groves are known to have ag chemicals	Low	Medium	Use the latest ASA Ag-Chem policy.				
6		4-Eng-02	19-Sep-14	Design Detail	Lower than 30% design in the Engineering Appendix. (ER 1110-2-1150 Appendix C)	Study Risk (study delays)	Lower ability to obtain vertical team concurrence and approvals	High	Prior projects received many comments regarding level of details in design.	Medium	Draft CEPP PIR was questioned by HQ for this reason.	Medium	High	Initiate coordination and buy in through engineering team. Considered in cost-schedule risk analysis. Will result in higher cost contingency.				
7		5-Eng-09	19-Sep-14	QA/QC/Review Plan	Expedited Review Process and Period	Study Risk (delay)	Delays in approval to address review comments. Decreased ability to modify and improve project based on fewer reviews comments received and potential for errors to be missed due to fast schedule. Potential to receive more substantial ATR, IPR, Public and Vertical Comments. Potential for project delays (schedule).	Medium	Complexity of CERP projects; yet we have experience that can be applied to address many issues.	Low	previous planning efforts have always generated a lot of comments for often unique cases that haven't been dealt with before.	Medium	Low	Develop Review Plan early in planning process including scope and schedule for review (incremental review when possible), improve integration between reviewers and design team. Meet with reviewers more often providing information as they are developed rather than waiting until the end product for review. simultaneous review - public, ATR, and IEPR. Prior efforts. Can be mitigated to low in consequence because the PED Phase of the project can be more detailed. In older USACE reports there is not much detail, but once authorized the lack of detail was dealt with during PED Phase. Will increase contingencies.				
8		6-PFP-04c	10-Oct-14	SFWMD Loxahatchee River Project expedited constructed features (need to list features) will not be included in the future without project, and instead included in some or all of the with project alternatives	Implementation Risk (Redesign)	Implementation (redesign)	Constructed features may not meet USACE engineering/design policy and guidelines.	Medium	Previous constructed features require formatting of plans and specs to conform with USACE guidelines	Medium	Prior project needed formatting.	High	Medium	Establish design team to review, format documentation to engineering guidance. Update costs for redesign if necessary to factor into project schedule costs.				