

Alternatives

| 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 | POC | Affected Study Component | Notes |
|-----------|-----------|--|---|---|---|--------------------|--|-------------------|--|--------------------|-------------|---|----------------------------|--|---|-------|
| | 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. | | Brad Foster and Andy LoSchiavo | Federal Government partnership in all aspects of study would be affected. | |
| | 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) and may not include all alternatives recommended by stakeholders. 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 local sponsor, stakeholder, and partner agency sponsor support. | High | Past studies experience with Central Everglades Planning Project (CEPP) | Medium | Past studies experience with CEPP | High | High | Use previous plan formulation (Ioxahatchee/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. | | SFWMD (Laura Kuebler), USACE (Jessica Vogler) | Affect modeling/evaluation,TSP planning steps. | |
| | 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 | | | | | |
| | 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. | | | I WROTE THIS/ DID NOT COPY IT FROM PREVIOUS DRAFT: NEPA analysis policy compliance review | |
| | 5-PFP-04a | | 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 potential 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. | | SFWMD (Laura Kuebler), USACE (Jessica Vogler) | | |
| | 5-PFP-04d | Future w/o Assumptions | | 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. | | SFWMD (Beth Kacvinsky), USACE (Brad Foster/Andy LoSchiavo) | | |
| | 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 (Stakeholder support) | 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. | | SFWMD (Beth Kacvinsky), USACE (Brad Foster/Kelly Keefe) | | |
| | 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 | | SFWMD - Boyd Gunsalus | | |
| | 8-ENV | Develop method (evaluation criteria) to account for importance of wild and scenic river which has smaller acreage compared to watershed. | Discrepancy 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 ecopcx, 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. | | USACE - Kevin, Andy, Brad; SFWMD - Patti Gorman, Yongshan Wan, | | |

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| | 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 significant 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. | | Laura Kuebler and Jessica Vogler | | |
| | 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 | | Medium | Watershed, Flood Plain and Connectivity have been defined, reviewed by RECOVER, and used in past LRWRP planning. Only Vallisneria missing. | 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. | | Patti Gorman | | |
| | 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. | | | | |
| | 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 | | Tammy Kinsey | | |
| | 13-Env-06 | Rely on previously developed water quality modeling and analysis | Water quality effects are inaccurately described for new alternatives | Study Risk (Analytical error,), Implementation (cost and schedule) | Uncertainty in water quality analysis causes delays in permitting 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. | | Tammy Kinsey | | |
| | 14-Eng-03 | Incorporation of new Technologies | Understanding effectiveness 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 identified 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). | | June Mirecki, Beth Kacvinsky | | |
| | 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. | | Laura Kuebler, Jessica Vogler | | |

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| | 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 Stakeholder support with respect to flood damage risk reduction and water supply analysis. 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. | | Laura Kuebler, Jessica Vogler | | |
| | 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. | | Laura Kuebler, Jessica Vogler | | |
| | 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 | | Laura Kuebler, Jessica Vogler | | |
| | 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. | | GIS specialist | | |
| | 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 State 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. | Ian Miller | | |
| | 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. | | Emmanuel Freeman, and Bob Schaffer | L | H |

TSP

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| | 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 | if stakeholders don't support, it would be hard to get through the regulatory process. | High | | Low | High | Apply same Period of Record (POR) model for Savings 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 | | | | |
| | 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. | 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. | | | | |
| | 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 significant cultural resource 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. | | | | |
| | 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 significant portion of project area is at risk. objectives of project are consistent with mitigating for sea level rise. | Low | Based on experience, 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-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 | | | | |
| | 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 | 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. | | | | |
| | 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. | | | | |
| | 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. | | | | |
| | 8-PFP-12 | *9/18/2014 | Stakeholder Support | 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 | 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. | | | | |
| | 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 PALS. 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 | | | | |

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| | 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. | | | | |
| | 11-Eng-08 | *9/19/2014 | Modeling QA/QC - not waiting for full IMC review of modeling. | Errors could be missed by not waiting for full IMC 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. | | | | |
| | 14-CR-01 | *9/19/2014 | Contract Logistics for Phase I 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 | Knowledge from previous experience with contracting | Low | Medium | 1. utilize multiple smaller contracts. | | | | |
| | 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-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-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 | | | | |
| | 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 performance) | 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 | | | | |

Agency Decision

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| | 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. | | | | |
| | 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. | | | | |
| | 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-5 | Low | former orange groves are known to have ag chemicals | Low | Medium | Use the latest ASA Ag.Chem policy. | | | | |
| | 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. | | | | |
| | 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. | | | | |
| | 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. | | | | |