		What is the problem or issue?	*Description of consequence. What could go wrong and how could it happen?*	*Unmitigated Ratings*							*Mitigation Technique*	*Mitigated Ratings*				*Risk Rating Buy down Delta*
Risk	**Risk Category/Shortcut**	**Risk Description**	**Consequences**	**Consequence Rating** *Severity, frequency, duration of impact on study success or project outcomes.*	**Likelihood Rating** *Probability of deviation from expectation .*	**Uncertainty** *Range of potential results.*	**Consequence**	**Likelihood**	**Uncertainty**	**Risk**	**Recommendation for reducing or "buy down" the risk (optional column)**	**Consequence**	**Likelihood**	**Uncertainty**	**Risk**	**Levels of rating buy down from mitigation recommendation**
PFP-01	Limited Alternatives	A fewer number of detailed alternatives will be evaluated 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. May not get stakeholder buy-in.	High because this assumes we won't get HQ or stakeholder support and acceptance.	High	Medium because of the uncertainty between High and Medium ratings by team members	H	H	M	H	Will attempt to bracket a wide range of alternatives in a comprehensive screening process. We will be screening a large number of alternatives up front (preliminary array). Batch processing components.	M	L	M	L	2
PFP-02	Identifying Problems & Opportunities	A reduced amount of time will be spent on identifying problems, opportunities and objectives.	Some problems and opportunities could get missed or identified later in Plan Formulation Process which would require revisiting steps made towards formulation.	Low - we are not likely to have missed anything significant. We have evaluated problems, opportunities and objectives for this region for over 10 years.	Low - we have evaluated problems, opportunities and objectives for this region for over 10 years.	Low - based on past experience with ROG and DECOMP	L	L	L	L	None identified	L	L	L	L	0
PFP-03	Formulate Components Interdependently	CEPP will not formulate project components as seperable elements. E.g Features from Lake Okeechobee, DECOMP, EAA Storage, or Seepage Management will not be stand alone alternatives.	Vertical team may require that components be justified individually.	High if unmitigated	Medium if unmitigated	Low - based on our understanding of interdependency of components and benefits	H	M	L	H	Present a thorough explanation of the interdependency of the components of the CERP components to HQ. Interdependent components is a key reason and concept for CEPP.	L	L	L	L	2
PFP-04	Formulating First Increment Only	CEPP will only formulate a practicable first increment.	Stakeholders may not support a first increment that does not fully resolve all their concerns, especially if they do not understand the increment in context with the end state. The TSP is not anticipated to fully meet all the restoration targets in the everglades.	High if not mitigated.	Low if stakeholders accept that there will be incremental benefits in first increment.	Low if stakeholders accept that there will be substantial incremental benefits in first increment.	H	M	L	H	Present a thorough description of the overarching goals of central everglades restoration and changing science, but focus the formulation of this PIR on a logical first increment using the CISREP as support for incremental restoration (i.e. timing, costs)	L	L	L	L	2
		CEPP will only define benefits for the first increment	Vertical Team may not support PIR effort if they don't understand what portion of the end state benefits we are accomplishing with the first increment (is this 5% or 80% of the total CE restoration)	High if unmitigated, but could be lowered to Medium, based on the fact that some portion of benefits can be defined (e.g., increased flows compared to those measured by ROG or CERP0)	High if unmitigated; low if mitigated	Medium	H	H	M	H	Could compare flows from first increment with those from CERP0 or ROG. BBCW and C-111SC PIRs were developed using a similar phased approach.	M	L	M	L	2
		CEPP will only define costs for the first increment	OMB may not support if they don't understand how much of the end state costs are included in the first increment (i.e 5% or 80% of the total costs)	High - would not be able to proceed to authorization without OMB support.	Low - Only seeking authorization for the first increment, and justifying benefits/cost for first increment. First increment is justified on its own merit, has benefits independent of the entire project.	Medium - We are justifying the costs/benefits of the first increment as a stand-alone project.	H	L	M	M	Provide updated approved CERP cost estimates for total first increment costs. Also, could use ROG cost estimating methodology to provide ROM cost estimate for first increment. Justify the cost effectiveness of the first increment.	H	L	M	M	0
		Will not be defining the end state of the total project (limitations could be identified during planning phase for future increments)	Future increments may require modifications to structural features of the first increment (i.e.., canal conveyance)	Medium - won't affect benefits.	Medium	Medium	M	M	M	M	Incorporate flexible designs and Adaptive Management.	L	M	M	L	1
PFP-05	Pro-Regs	Potential deviation from the DRAFT Pro-Regs Guidance Memos.(e.g.., will not evaluate last added increment -- all alternatives will build off the W/o project, including the first and second Generation of CERP)	Because this approach varies from previous CERP PIRs, there may be increased scrutiny and potential stakeholder or vertical team dissatisfaction.	Medium but could be reduced to Low - Assuming support from leadership of the key agencies involved in DRAFT GMs . All are involved in this study.	Medium - majority of stakeholders are frustrated by delays resulting from Draft GMs.	Low	M	M	L	M(L)	Need Three Agencies and Vertical Team Support. We will follow the Pro-Regs (the law) and justify using the Next Added Increment as required, but not necessarily all of the concepts in the DRAFT GMs. This new approach, if agreed to, could be used to update the draft GMs. There are certain concepts in the GMs that are not fully defined and others that are untested.	L	M	L	L	1
PFP-06	Future w/o Assumptions	Assumption that 2nd Generation CERP Projects in place for the FWO condition. Includes C-43, BBCW, C-111SC and BCWPA.	BBCW and C-111SC - since projects are being constructed by the sponsor prior to authorization,-not including in the FWO would be a disconnect.	Low - under construction	Low - expect that Congress will ultimately authorize and fund, just a matter of timing.	High - don't know when Congress will authorize and fund.	N	L	L	N	None identified	N	L	H	N(L)	0
			C-43 would be complimentary to this PIR	Low - complimentary to the outcome of the project	Low - expect that Congress will ultimately authorize and fund, just a matter of timing.	High - don't know when Congress will authorize and fund.	L	L	M	L	None identified	L	L	M	L	0
			There could be a disconnect in plan formulation and benefit evaluation due to seepage impacts and S-9 pump station operation changes resulting from BCWPA.	Medium	Low - expect that Congress will ultimately authorize and fund, just a matter of timing.	High - don't know when Congress will authorize and fund.	M	L	H	L	Could run sensitivity analysis without BCWPA, but would increase time and cost to the study.	M	L	M	L	0
PFP-07	Savings Clause analysis of flood protection.	Not using Design Storm/SPF Analysis.	Stakeholders may request additional modeling.	High - if stakeholders don't support, it would be hard to get through the regulatory process.	High, 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	Low based on experience.	M	M	L	M	Apply same POR model for Saving Clause as used for plan formulation, RSM-GL. This approach is consistent with CERP GM#3). 2. Analyze primary/secondary canal stages and a representative sample of 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 ECP 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.	L	M	L	L	1
PFP-08	Model Certification	Incremental review/ multiple deliverables (living document)	ECO-PCX approval of the model review plan	Low - because waiting until all modeling, post-processing, and benefit calculations are complete would leave greater risk of having to revise benefit evaluations and re-model alternatives, and would take additional time and money.	Low	Medium	L	L	L	L	Have ERDC or IWR to join the ATR team for a more thorough review	L	L	L	L	0
PFP-09	Concurrent Reviews	Concurrent 45 day reviews for IEPR, SAD/HQ/ASA and Public instead of sequential review.	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	H	L	L	L	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.	L	L	L	L	1
PFP-10	Climate Change - Sea Level Rise	Conduct sea level rise evaluation only on the TSP, using a static scenario based GIS sea level rise mapping effort similar to previous CERP PIRs.	EC requires significant amount of time and effort modeling various sea level rise scenarios. Requires evaluation of all alternatives -- impacts schedule.	Low -objectives of project are consistent with mitigating for sea level rise.	Low	Low	L	L	L	L	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.	L	L	L	L	0
PFP-11	Climate Change	Accurately predicting climate change	Under- or over-estimating the amount of water available for the environment. Don't have clear models or indications of impacts to evaluate climate change.	Medium	Low	Low	M	H	H	H	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.	M	L	L	L	2
PFP-12	Process	Increased Amount of Public Involvement	Increased speed of study process may result in difficulty for stakeholders to stay engaged	High - hard to get through regulatory process without support	Low - based on experience and desire to move quicker without cutting them out of the process.	Low	H	L	L	M	Multiple opportunities for stakeholder engagement will increase ability to stay engaged	M	L	L	L	1
			Increased resource requirements for meetings and additional costs	Low - additional costs will not be substantial.	Medium	Low	L	M	L	L	Multiple opportunities for stakeholder engagement will increase ability to stay engaged	L	M	L	L	0
PFP-13	Development of BA/BO/CAR	Reduced timeframe may constrain development of BA/BO/CAR	May not make schedule; uncertainty may result in leaning toward higher impact rating.	High	Low -- Agency management for USFWS and FWCC support the schedule	Low	H	L	L	M	Get commitment from USFWS that they can meet this accelerated schedule.	H	L	L	M	0
PFP-14	Future w/o Assumptions	Assumptions for whether MWD conveyance and seepage features are included in future without project condition will affect plan formulation and evaluation of benefits for central everglades alternatives. DOI has concerns that current budget for MWD may be insufficient to construct these features. Additional funding for Tamiami Trail is also required to complete construction.	If the conveyance features are not to be included in the MWD project after discussions with DOI and notice to the Congressional Committees, the Corps and State will discuss whether such features could be added to the Central Everglades study. Plans for conveyance and cost allocation of conveyance features will not be included until after discussions with DOI and notice to the appropriate Congressional Committees. The study will assume Tamiami Trail will be fully funded to complete construction since project construction is underway.														0

Risk	Risk Category/Shortcut	Risk Description	Consequences	Consequence Rating *Severity, frequency, duration of impact on study success or project outcomes.*	Likelihood Rating *Probability of deviation from expectation .*	Uncertainty *Range of potential results.*	Consequence	Likelihood	Uncertainty	Risk	Recommendation for reducing or "buy down" the risk (optional column)	Consequence	Likelihood	Uncertainty	Risk	Levels of rating buy down from mitigation recommendation
PFP-15	Project Feature Siting Analysis	Focus the first increment of Central Everglades restoration to lands in public ownership.	Additional increments will be needed to achieve the overall CERP restoration targets.	Low - Still expect to receive significant benefits to the Central Everglades.	High - The current economic condition and budget forecast for the SFWMD limits the likelihood that the sponsor could purchase a significant amount of additional lands for CERP features over the next ten years or more.	Low	L	H	L	M	The Corps will consider siting of project components on lands already purchased by the State. Using lands already acquired could expedite project implementation resulting in earlier delivery of environmental benefits. The Corps will utilize existing analyses of alternative sites within the EAA to insure that proposed projects sites are cost-effective. Maximize use of Federal Lands purchased for CERP.	L	M	L	L	1
PFP-16	Lake O Regulation Schedule	Work within the flexibility of the existing Lake Okeechobee Regulation Schedule.	An optimal operating schedule for the first increment may require a change in the Lake O schedule. Changing the Lake O schedule will require a separate EIS prior to implementation and a change to the system operating manual.	Medium - we have a programmatic process for updating the System Operating Manual (SOM)	Medium	Medium	M	M	M	M	None identified	M	M	M	M	0
PFP-17	WCA 3 Regulation Schedule	The constraint for Zone A of the WCA-3A Regulation Schedule precludes raising of the top of the WCA-3A Regulation Schedule.	Impacts plan formulation regarding how much water you can move southward.	Medium - substantial benefits are still expected and goals to lower stages in WCA 3A is consistent with the constraint	Medium	Medium	M	M	M	M	None identified	M	M	M	M	0
PFP-18	State Rulemaking	For determining Water Made Available, we may perform less detailed analysis of IOR and NAI; Methodology has not been fully developed	While adequate for the PIR, 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	L	L	L	L	None identified	L	L	L	L	0
PFP-19	Stakeholder Support	Limited Level of detail for evaluating LEC water supply impacts (Savings Clause)	Stakeholders may not be satisfied that this has been adequately evaluated	High if unmitigated	Low - law assures that there will be no impacts	Medium	H	L	M	M	Use information from LECWSP and/or conduct higher level basin water availability assessment.	M	L	M	L	1
PFP-20	Future Without Conditions - Operational Considerations	Assume ERTP as operational regime.	ERTP is not yet authorized, but is expected to be authorized in March 2012. Potential for impacts to South Dade Conveyance System	Medium - Mitigation of flood impacts could be costly	High	Low	M	H	L	H	Savings Clause analysis will be performed using ERTP operations.	L	L	L	L	
Env-01	Communication/ Expedited BO/BA & other detailed analysis	Potential for limited review of natural resources when developing the BO, BA or other detailed analyses.	Less detailed assessment of potential impacts to habitat and wildlife which could lead to identifying an incorrect plan or impacting T&E species.	High	Medium - in past experience we have found ways to reduce this problem. Make sure to do the mitigation to have medium likelihood.	Low	H	H	L	H	This risk has been changed to a low due to actions taken to address the concerns. Ecosystem sub-team has been established, and a strategy for assessing Threatened and Endangered needs has been created. Modeling and post processing tools are adequate to determine potential impacts and benefits.	L	L	L	L	2
Env-02	Information Integration	Shortened timeline limits the integration of information from existing studies and projects.	Potential to result in larger footprints than required which could then impact environment, or smaller footprints than needed so goals are not met.	Medium - cost and benefit consequences	High	Low	M	H	L	H	Do data mining, pull in as much information as possible from prior projects.	M	M	L	M	1
Env-03	Performance Measures/Modeling/Targets	A. Reliance on and availability of models.	There are questions that are not able to be answered by the model and features that are not discernable in the models, yet there is a history of reviewers not accepting alternatives that were not modeled. There is too much reliance on modeling to capture environmental effects and it may be difficult to identify features needed for the project. Potentially a lack of adequate information in the current models.	Medium - The existing models and data mining are sufficient, but there are limitations in showing everything desired.	Medium - There are accepted and certified models from 10 yrs of work already but may not have some critical ones.	Medium	M	M	M	M	Instead of solely focusing on the habitat evaluation methodology i.e...habitat units also focus on other non-quantitative evaluation techniques i.e....best professional judgment, Everview Viewing Windows, ElVeS...etc... Utilize facilitated public process. Use RECOVER approved performance measures.	M	M	M	M	0
		B. Limited opportunity to develop new performance measures and targets. Adequacy of relying on existing performance measures.	Potential to not have a tool to evaluate certain aspects of the system: inability to quantify certain benefits of alternative plans.	High	Low: There are good PMs existing.	Low - we know what we have from RECOVER and DECOMP. We need to know what our targets are now	H	L	L	M		M	L	L	L	1
		C. Perception that performance measures may conflict	Performance measures may demonstrate positive impacts in one geographic area while showing negative impacts to another, and the net effect may appear to be no impact. If the PMs conflict there may be difficulty justifying the need for the project or differentiating between alternatives.	High	Medium	Low	H	M	L	H		H	M	L	H	0
		D. Perception that one performance measure/project objective is more important than an other.	Stakeholder disagreement over priorities.	Medium	High	Low	M	H	L	H		?	?	?	H	0
Env-4	Policy	Water quality issues in addition to Total Phosphorous	Even though we will meet water quality standard there exists a potential for unintended and unforeseen ecological impacts on flora and fauna due to changes in quantity, timing and duration I.e.. Nitrates, mercury, conductivity, PH, DO, Calcium, Sulfates, etc...	Medium	Medium	Low	M	M	L	M	During planning minimize the cascading effects of water quality issues by incorporating flexible features in the design and operations.	M	M	L	M	0
Env-5	Water Quality Modeling	Reliance on and availability of peer reviewed and accepted models.	Possible inaccurate estimate of water quality impacts.	High	Medium - Use WQ models in the EAA (DMSTA) to size the water treatment features.	Medium	H	M	M	H	Utilize tremendous amount of existing empirical data on WQ for analysis. Use of available tools including DMSTA.	M	L	M	L	2
Env-6	HTRW	Expedited schedule impacts ability to complete HTRW site surveys	Cost of remediation could potentially be significant	High - cost of remediation	Low - because of work already done	Low	H	L	L	M	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.	M	L	L	L	1
Env-7	Agricultural Chemicals	Lands in the EAA area under consideration may be impacted by agricultural chemicals	Cost of remediation could potentially be significant	High	Low	Low	H	L	L	M	Use the latest ASA Ag-Chem policy.	M	L	L	L	1
Eng-01	Data for Design	Reduced design data acquired, no new contracts to acquire data.	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	High	Low	M	H	L	H	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.	M	M	L	M	1
Eng-02	Design Detail	Lower than 30% design in the Engineering Appendix. (ER 1110-2-1150 Appendix C)	Lower ability to obtain vertical team concurrence and approvals	High	Medium	Low	H	M	L	H	Initiate coordination and buy in through engineering team. The Community of Practice (CoP) needs to be continuously involved and a part of Decision Point 1	H	L	L	M	1
Eng-03	Technological Uncertainties	Lack of information from pilot studies (L-31N SMPP and DPM) to determine viability and application of technology.	If results of pilot studies differ from assumptions used in the PIR, potential for re-engineering solution during detailed design.	Low	Medium	Low	L	M	L	L	Use existing data, don't expect any inconsistencies from Pilot Project. Obtain additional information from Lake Mitigation efforts on seepage management	L	M	L	L	0
Eng-04	Reduced Level of Design	Reduced level of operational detail regarding how facilities will operate together	May need to include additional features to accurately operate to achieve goals, which will lead to an increase in project cost. Features may likely have to be modified due to short design window. Plan may call for a specific feature based on assumptions, where design may require different size for actual operations. Reduced timeframe does not permit enough time to make decision whether operations or design changes are necessary. It may be easier but more costly to default to design contingencies than define operational modifications	High	High	Low	H	H	L	H	Build in flexibility in preliminary design plan rather than dictating detailed infrastructure requirements and specifications in the project plan.	M	H	M	H	0
Eng-05	Engineering Modeling Certification	Use of currently uncertified modeling tools	Going through certification process for selected 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	High	Low	H	H	L	H	Expedited, waived, relaxed or limited certification for relative comparison between alternatives during planning. May not be able to use preferred model due to time. Use other expeditious engineering tools, methods and practices to design. Continue to do hydrologic modeling during PED phase.	N	N	L	N(L)	3
Eng-06	Modeling -	Use existing (constrained) suite of models	A. Level of resolution of existing (H&H) models/detailed modeling information related to hydraulic design may not be available for all management measures. B. Impacts on Savings Clause analysis of flood control protection. - See PFP-07	High	Medium	Low	H	M	L	H	Use other expeditious engineering tools, methods and practices to design. Perform additional, H&H detailed modeling during PED phase. The potential range of management measures for inclusion in the base conditions and alternatives needs to be cross-referenced with the capabilities/limitations of the proposed hydrologic modeling tools, providing an additional check that the modeling toolbox is suitable for the CEPP analysis -- this assessment should also be integrated into the CEPP modeling strategy	M	M	L	M	1
Eng-07	Modeling QA/QC	Deferred formal model documentation	Modeling documentation is typically presented after each alternative, and deferring documentation until the end of evaluation, screening and selection period may affect the ability to identify modeling errors and stakeholder acceptance within required timeframe.	High	Medium	Low	H	M	L	H	Full QAQC and informal documentation will still be performed during development of modeling products. Streamline formal model documentation to expedite delivery	M	M	L	M	1
Eng-08	Modeling QA/QC	CEPP will not go through formal IMC workflow review and analysis.	Independent quality review may be decreased which could lead to errors being missed.	Low--in normal process, it rarely becomes a game changer.	High	Low	L	H	L	M	Complete modeling in collaboration with USACE and SFWMD technical experts. Include USACE IMC technical experts on the Agency Technical Review Team.	L	M	L	L	1
Eng-09	QA/QC/Review Plan	Expedited Review Process and Period	Decreased ability to modify and improve project based on fewer reviews comments received and potential for errors to be missed. Potential to receive more substantial ATR, IPR, Public and Vertical Comments. Potential for project delays (schedule).	Medium	High	Medium	M	H	M	H	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.	L	H	M	M	1
Eng-10	Policy	Evolving policies during planning	Cost and schedule impacts to account for changes in policies during planning.	High	High	High	H	H	H	H	Utilize existing policy at time of Decision Point 1. Vertical communication to determine if any draft policy could impact formulation or plan selection.	H	H	H	H	0
Eng-11	Design Efficiency	Limited time to optimize design efficiency and effectiveness	Unable to refine planning level design to be the most cost effective.	Medium	High	Low	M	H	L	H	Use best professional judgment for design. Provide descriptive rough order solutions (representative solution) rather than definitive finite design.	L	H	L	M	1
Eng-12	First Increment Limitations	Economy of scale/compatibility associated with what subsequent projects are and how CEPP phasing factors into that.	Potential to re-engineer features constructed in current project phase (first increment) in future project phases (i.e. ...canal widening).	Medium -EAA Canal for first increment is a certain size, in future phases may have to widen/deepen same canal again which increases cost. Does not effect first increment but may have an effect on future project phases.	High	Low	M	H	L	H	If there are exact knowns (ultimate capacity), identify them in the planning process. Design features that easily expandable (flexible design).	L	M	L	L	2

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SE-01	Future Without Conditions - Water Supply Demand Projections	2050 water demand projections are kept constant with the baseline 2011 water demand projections.	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 withdraws has been in place since 2006, and any changes would more than likely occur late in the study period and be negligible.	Medium - There is a possibility that LEC and LOSA water supply plans will be altered in the future.	Medium	L	M	M	L	None Identified. This is the most likely scenario.	L	M	M	L	0
SE-02	Recreation Impacts	Potential economic impact and reduction in Stakeholder support due to loss of existing recreational opportunities.	Job loss, impact to livelihood, public support, FWC support, ERD impacts	Medium - level of public involvement and potential economic regional impact	High	Low	M	H	L	H	Recreational plan will be developed and included and may mitigitate some of the impacts.	M	M	L	M	1
SE-03	Future Without Condition - Land Use Projections	Use CERP 0 land use projections	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	L	L	L	L	Spot check land use projections used in CERP 0 with current county land use plans.	L	L	L	L	0
SE-04	Demographic level of detail	Lack of data to determine targeted demographic groups. Unknown potential impacts in the EAA and glades.	Potential Environmental Justice Issue	Low - Data most likely contained in the CERP Ethnographic study	Low	Low	L	L	L	H	Utilize Ethnograph Study to minimize and avoid potential impacts.	L	L	L	L	0
RE-01	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.	High - violating savings clause and flooding of private property	Medium - depends on alternatives and TSP	Low	H	M	L	L		H	M	L	H	0
RE-02	Unidentified Structures	Real Estate: Facility/Utility ID (all: Utility, roads, bridges, etc.)	Increase risk of unidentified structures resulting in time/cost to remedy	Low - SFWMD has majority of the data	Medium - Potential for unpermitted utilities/facilities in WMD right of way.	Low - Confident that something will be found due to non-permitted structures.	L	M	L	L	Instead of waiting for the TSP start compiling in-house documents as to what is on the land.	L	M	L	L	0
RE-03	Land Ownership Constraints	Real Estate: Absence of full ownership information.	Increase risk of flooding private lands	Low - Land interests are within the canal right of way or wet areas.	Low - minimal value in land interest	High - Confident of low risk	L	L	H	L	Utilize existing information. Could go ahead and go forward and risk being sued. Statute of limitation is four years, after action is implemented.	L	L	H	L	0
CR-01	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.	Unable to meet milestones or meet policy requirements within the 18-month time period.	Medium - Time	Medium - Knowldege from previous experience with contracting	Low	M	M	L	M	1. Seek a policy waiver to utilize our IDIQ without having to coordinate through SAD, and/or 2. utilize multiple smaller contracts.	L	L	L	L	1
CR-02	Using Available Cultural Resource Surveys	Not much work already done in Central Everglades area specific to the uses we are proposing (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	Lack of being compliant with the law.	Low -it is currently under study	High - because the study hasn't been completed so that it is an unknown at this time.	Low	L	H	L	M(L)	This risk would not be so high for a smaller project area. It is the vastness of the area that causes time to be an issue.	L	H	L	M	0
CR-03	Cultural Resources Survey	Wait until the TSP to initiate Phase 1 Survey.	Cultural Resources would not be complete before the final draft of the PIR. 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). May not get SHPO concurrence and therefore vertical team approval.								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.					0
CR-04	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	Acceptance from 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	H	L	L	M	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	H	L	L	M	0
CR-05	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	L	H	L	M	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	L	H	L	M	0
CR-06	Expedited Tribal Coordination	Tribal Coordination: Consultation will be on a shorter time frame.	Schedule impacts due to coordination.	High - shorter term	Medium - uncertainty	Low	H	M	L	H	Request standing opportunities for consultation (i.e. monthly) in advance and consult routinely throughout the process.	H	M	L	H	0
CR-07	Programmatic Agreement for CR	The Programmatic Agreement for Cultural Resources for ERTP will bring CEPP into compliance with Section 106. Phase II cultural resource survey will not be conducted for CEPP.	If PA is not approved, potential litigation and lack of support from SHPO and tribe, leading to Phase II surveys and added time and cost for CEPP.	Low - We anticipate the PA for 3A and 3B will be in place	Low - Already have draft in place	Low	L	L	L	L		L	L	L	L	0
CR-08	Land Use Projections	Land use Projections - Tribal Lands (STOF 2000 Annual Work Plan (AWP))	Potential Tribal infrastructure changes could lead to water availability issues.	Medium - Potential changes to 2000 AWP used as the basis	High	Low	M	M	L	M		M	M	L	M	0