SMART Planning, Risk Register, Decision-Management Plan

Brad Foster and Andy LoSchiavo
U.S. Army Corps of Engineers
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Former Feasibility Study Process

- Overly detailed, expensive & time-consuming
- Detailed data generation for multiple alternatives was not consistently leading to a better product or decision
- Reports were too long with too much technical detail
- Sponsors, Congress and the Corps were increasingly frustrated with the situation

MG Walsh Memo (3x3x3)

- Introduces aggressive approach to improve feasibility study program management, performance, execution & delivery
- Establishes a disciplined approach for reducing current feasibility study portfolio
- Holds all Civil Works functional elements responsible & accountable
- Effective 8 Feb 2012
- Applies to all planning studies

3x3x3 Rule:

- ❑ $3 million
- ❑ 3 years
- ❑ 3 levels of enhanced vertical teaming
- ❑ 100 page main reports (w/ appendices 3” binder)

❑Exemptions are few and far between

The SMART Planning Feasibility Study Process

It is…

S pecific
M easurable
A ttainable
R isk-Informed
T imely

- Studies completed in a more reasonable amount of time
- Studies cost significantly less
- Decision documents high quality and concise
- Decisions informed by managing risk and acknowledging uncertainty
- SMART Planning replaces "paralysis by analysis"

SMART Planning: What's Similar?

- **Uses the 6-step planning process**
  - ✓ **Incorporates quality engineering, economics, real estate and environmental analysis**
- **Fully compliant with environmental laws (NEPA, etc…)**
- **Includes public involvement**

The “6 Steps” of USACE Planning

- Problems and Opportunities
- Inventory and Forecast
- Plan Formulation
  - ✓Objectives and Constraints
  - ✓Measures
  - ✓Alternatives
- Plan Evaluation
- Plan Comparison
- Plan Selection

Why

What
Where
When
How

SMART Planning: What's Different?

- Process and outputs are decision focused, and within the six step planning process
- Risk and uncertainty for each decision is acknowledged and managed
  - ✓ Only collect data needed
  - ✓ Make decision and move on
  - ✓ Level of detail (of data / decision) grows over time
  - ✓ Vertical Team agreement on "acceptable" level of uncertainty and path forward to manage that uncertainty
- Report developed from the beginning of the study, documenting the decisions
- New tools (living documents and reports)

Decisions

- **Alternatives Milestone: VT confirms array of alternatives and the criteria the PDT will use for evaluation and comparison**
- **TSP Milestone: VT confirms the tentatively selected plan recommended by the PDT**
- **Agency Decision Milestone: Senior USACE leader endorse recommended plan for feasibility-level design**
- **Final Report Milestone: USACE Deputy Commander briefed at Civil Works Review Board on recommendation and releases Final Report for State and Agency Review**
- **Chief's Report Milestone: Chief signs the report**

Define Risk for 3x3x3 Planning

Ask how do our choices affect:

- **Study Schedule**
- **Study Cost**
- **Decision Quality**
  - ✓ **Project Cost**
  - ✓ **Project Benefits**
  - ✓ **Residual Risks, including Safety Levels**
  - ✓ **Environmental and Social Impacts**
  - ✓ **Compliance with Policies**

USACE SMART Planning Process

TARGET - 36 MONTHS

Problems & Opportunities
Inventory & Forecast
Formulate Alternatives
Formulate Alternatives
Evaluate Alternatives
Compare and Select Alternatives

The 6 Planning Steps

Scoping

IPR 1 IPR 2

1

Milestone 1
Alternatives

Alternative Formulation and Analysis

IPR 3 IPR 4 IPR 5

2

Milestone 2
Tentatively Selected Plan

Milestone 3
Agency Decision

Coordinated Review

Feasibility Level Analysis

IPR 6

3

Milestone 4
Civil Works Review Board

4

State1501 Submittal

Chief's Report

IPR 7

State1501 Approval

5

Milestone 5
Chief's Report

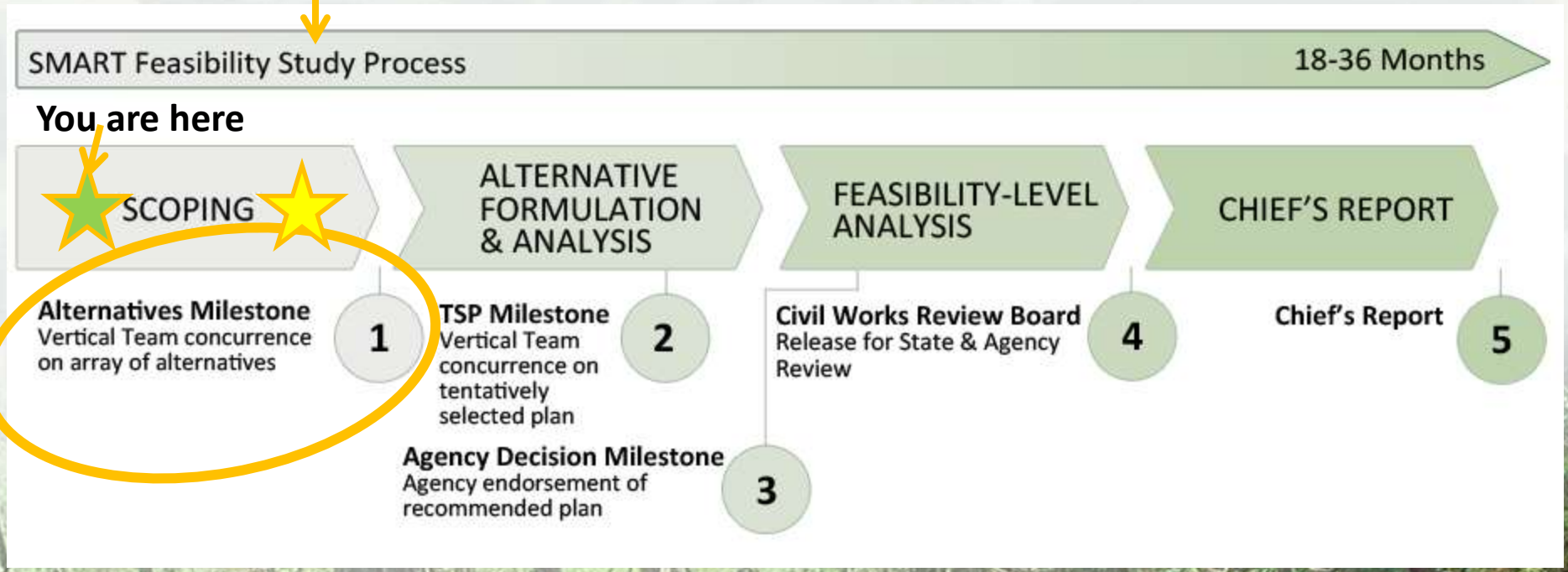
IPR: In-Progress Review (as needed) with Corps Leadership

Tools for SMART Planning

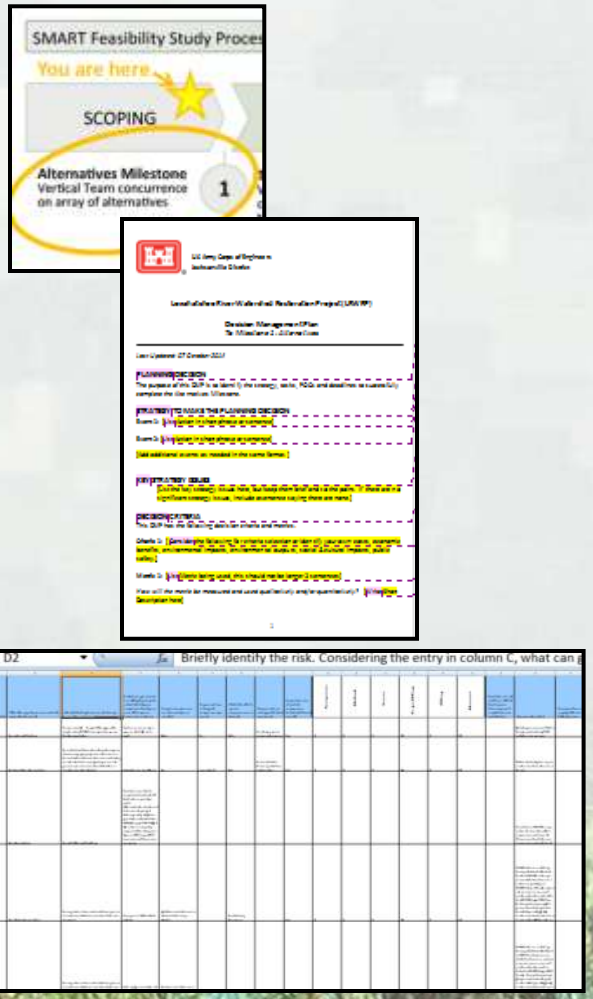
- In Progress Reviews and other Team Meetings
- Risk Register – documents study and project uncertainty / risk so it can be managed
- Decision Management Plan – maps path to the next major study decision
- Decision Log
- "Write as you go." Report is developed from the beginning of the study, documenting the decisions
- All are living documents updated for each milestone

USACE SMART PLANNING MILESTONE #1: ALTERNATIVES

Vertical Team Compliance



MILESTONE #1: ALTERNATIVES



- **3x3x3 Compliance Memo (includes 5 documents)**
  - **Updated Project Management Plan**
  - **Budget and Schedule tables**
  - **Risk Register (RR)**
  - **Report Synopsis**
- **Existing Conditions and Future Without Assumptions**
- **Array of Alternatives**
- **Criteria to evaluate/compare alternatives**

RISK REGISTER

- **Focus key activities and decisions to get to Milestone-1.**
- **What uncertainty and risk do we have in making those decisions?**
- **Draft Risk Register (RR) developed to address:**
  - ***" What do we need to do to get to Milestone-1?" and***
  - ***" What uncertainties and risks will we face with specific tasks getting to Milestone-1, and how will we reduce or handle them without delay?***
- **Also looked beyond Milestone-1:**
  - **Where needed, identify longer term needs/ uncertainties/ risks.**
  - **The RR, Decision Management Plan will be updated for each milestone! K.I.S.!**

DECISION MANAGEMENT PLAN

- What: Strategic Document that describes work to be done by PDT to reach each significant planning decision (Milestone)
- Information needed to make decision
- Who will develop that information
- How and when will it be developed
- When decision will be made
- Linked to Risk Register – Each activity related to a decision what is the level of detail for planning, what uncertainty-risk remains

Risk Register Linked To Decision Management Plan

- Draft developed – complicated spreadsheet
- PDT feedback –
- level of detail for getting to key decisions
- associated risk
- uncertainty

Planning Decision Example

Screening of Alternatives:

Step 1: Identify Management Measures

How: Review prior plan formulation documents,

Step 2: Screen Management Measures

How: Use screening tools already developed from 2005-2010

Step 3: Develop Alternatives

How: Use prior alternative formulation process and stakeholder feedback

Step 4: Screen Alternatives

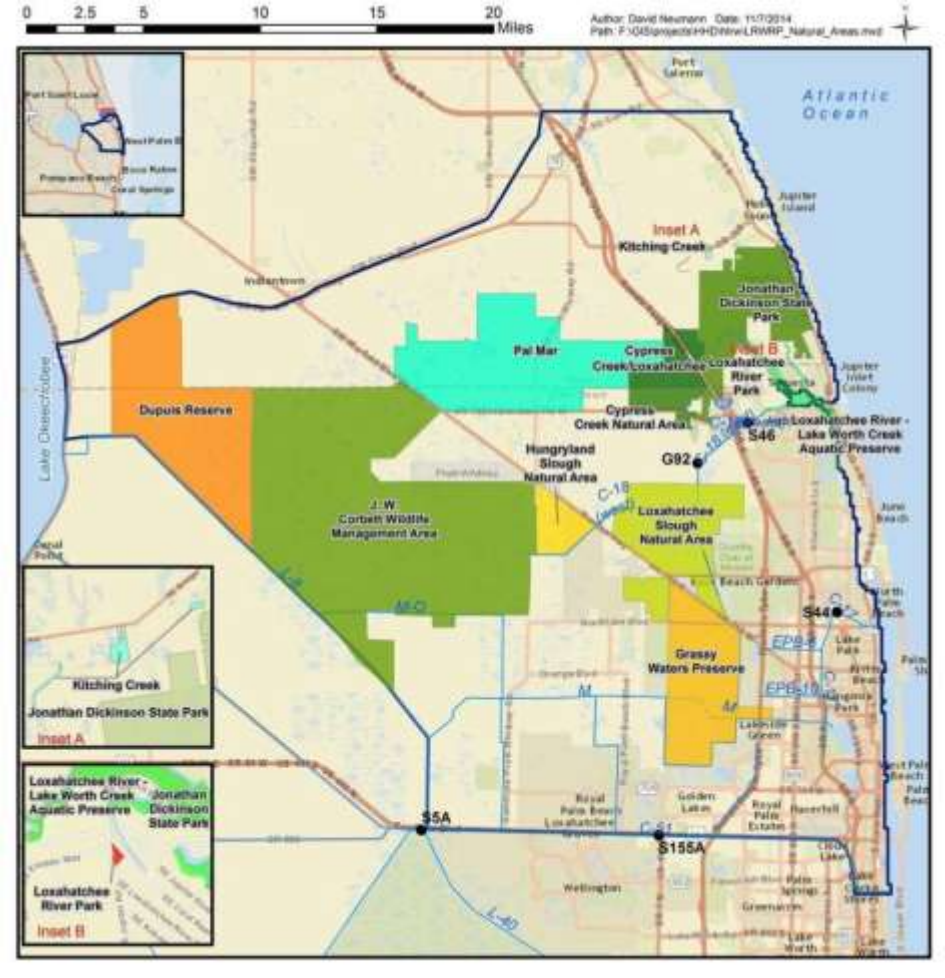
How: Use prior tools from Lox planning and State water quality environmental information (qualitative)

Next Steps Over the Next Month

Send draft background documents to PDT –

- **Risk Register, Project Management Plan, Schedule, Budget, Report Synopsis**
- **Jan. 12th – NEPA Scoping Meeting**
- **Jan. 29th – PDT Plan Formulation Meeting**

PDT DISCUSSION



National Environmental Policy Act and SMART Planning

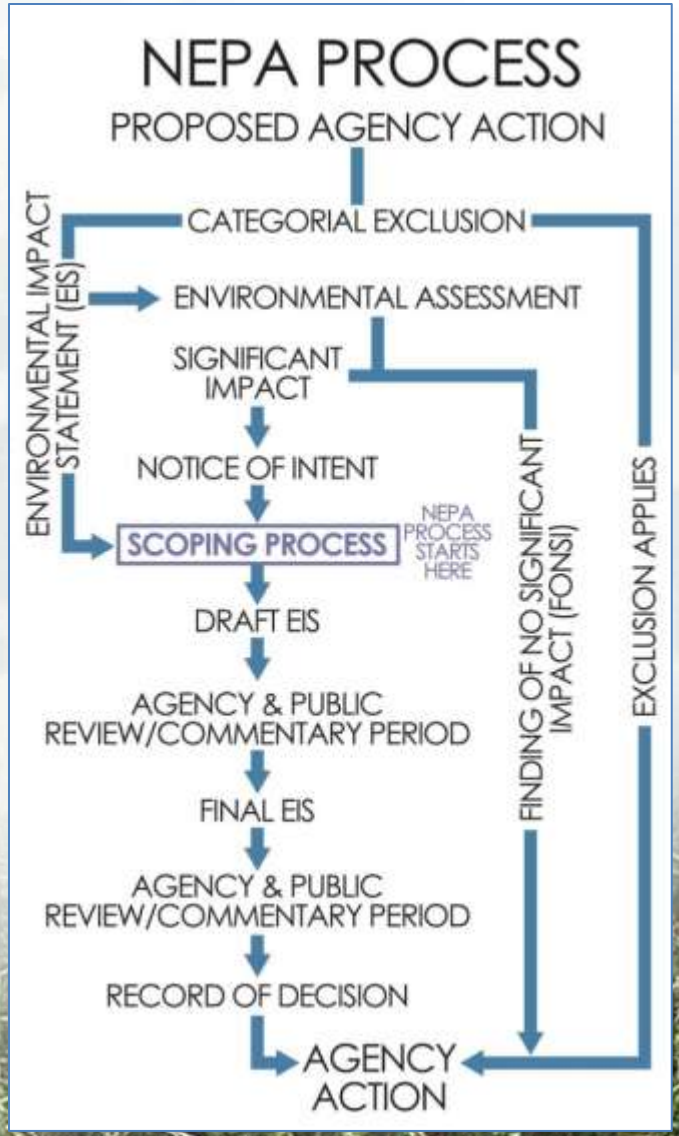
Presenter: Andy LoSchiavo, USACE

National Environmental Policy Act (NEPA) Goals

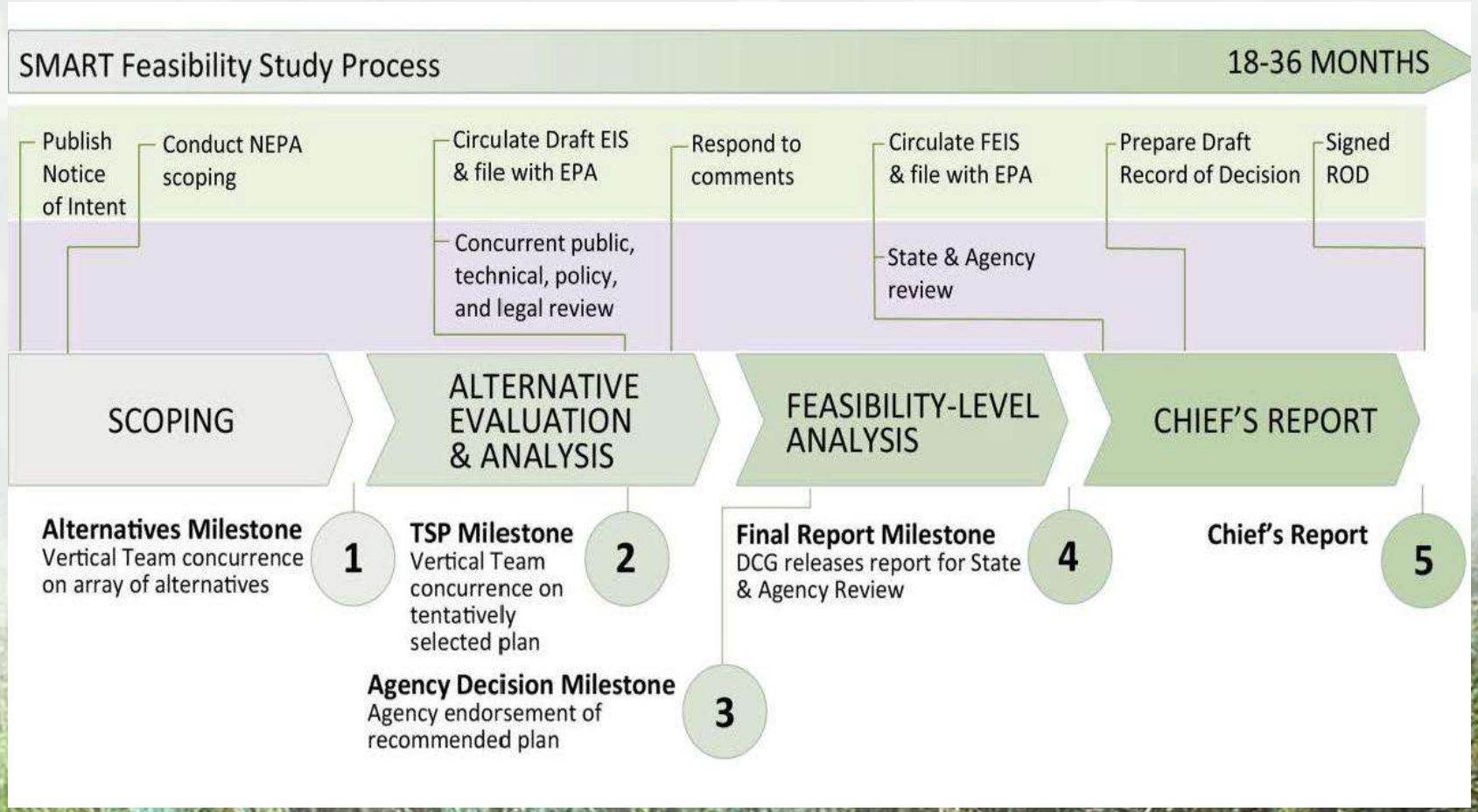
- Requires Federal agencies to consider environmental consequences of Federal actions before making final decisions
- Solicit and consider public views on proposals
- Consult with Tribal, state, and local governments concerning plans
- Provide agencies with a mechanism to coordinate overlapping, jurisdictional responsibilities

NEPA REQUIREMENTS

- **Under NEPA, Federal agencies must prepare detailed statements addressing the potential environmental impacts related to a major Federal action:**
  - **Categorical Exclusion (CAT-EX)**
  - **Environmental Assessment (EA)**
  - **Environmental Impact Statement (EIS)**



National Environmental Policy Act Process and SMART Planning Schedule



NEPA and Planning Process

Six-Step Planning

Step 1 - Problems and Opportunities; Goals and Objectives
Step 2 – Forecast Existing and Future Conditions
Step 3 – Develop Alternatives
Step 4 – Evaluate Plans
Step 5 – Compare Plans
Step 6 – Select Plan

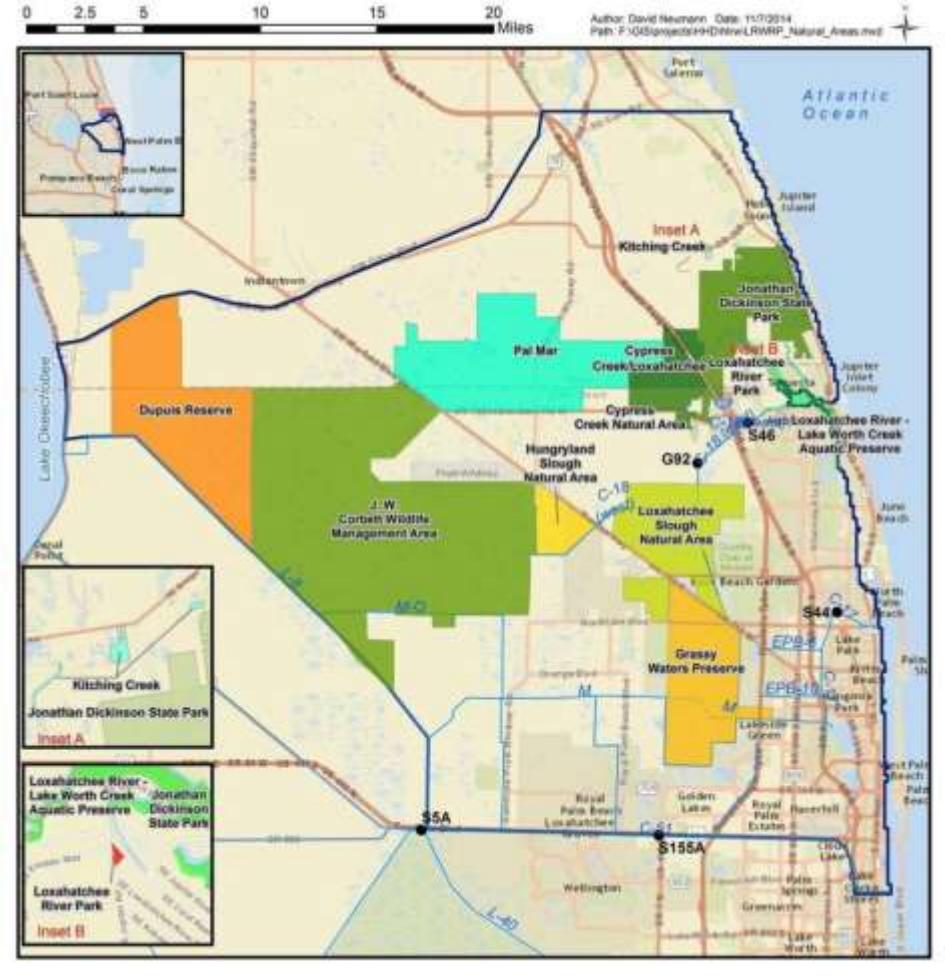
NEPA Assessment

- Purpose and Need
- Affected Environment, No Action Alternative
- Range of Alternatives
- Environmental Effects
- Conclusions – Consultation and Coordination

Future NEPA Public Involvement Opportunities

- **Scoping Meeting: Jan. 12th, 2015**
- **Purpose to gather information on problems, opportunities, issues to evaluate, criteria to consider**
- **Scoping letters and website information to be mailed early January**
- **Public Meeting – Draft EIS: July, 2016**
- **Purpose to gather public input on Draft EIS and Project Implementation Report**

PDT DISCUSSION



Loxahatchee River Watershed Restoration Project

Problems and Opportunities
Goals and Objectives

NATIONAL WILD AND SCENIC LOXAHATCHEE RIVER

PROBLEMS

- Altered timing and distribution of headwater base flows to the Northwest Fork of the Loxahatchee River
- Increased salinity effects on formerly freshwater reaches of the Loxahatchee River
- Increased wet season flows to Southwest Fork and Loxahatchee Estuary
- Loss of freshwater cypress floodplain adjacent to Loxahatchee River
- Degraded natural area structure and function from altered hydrology
- Conversion of natural areas to agricultural, residential and industrial uses
- Loss of connectivity and barriers to flow between natural areas, river, and estuary
- Reduced native floral and faunal populations and diversity
- Degraded water quality in natural areas

PROJECT GOALS AND OBJECTIVES

Consistent with CERP Goals and Objectives (Table 5-1)

1. Enhance Ecological Values
   - A. Increase the total spatial extent of natural areas
   - B. Improve habitat and functional quality
   - C. Improve native plant and animal species abundance and diversity
2. Enhance Economic Values and Social Well Being
   - A. Increase availability of fresh water (agricultural/municipal and industrial)
   - B. Reduce flood damages (agricultural/urban)
   - C. Provide recreational opportunities
   - D. Protect cultural and archeological resources and values

LOXAHATCHEE-SPECIFIC PROJECT
GOALS AND OBJECTIVES

- Restore hydrologic and spatial connectivity to be able to import water from upstream basins (e.g., Pal-Mar/Cypress Creek Basin) to Loxahatchee River and river tributaries during drought conditions
- Increase dynamic storage to meet base environmental flows to enhance resiliency of Wild and Scenic North Fork of Loxahatchee River and River Floodplain to salinity impacts
- Restore connections between Corbett Wildlife Management Area, Pal-Mar/Cypress Creek basin, Loxahatchee Slough, Grass Waters Preserve and Loxahatchee River to improve hydrology, sheetflow, hydroperiods, natural storage, and vegetation communities
- Capture and store excess runoff to reduce wet season high flows to Loxahatchee River Estuary through South Fork at the coastal control structure S-46

LOXAHATCHEE-SPECIFIC PROJECT
GOALS AND OBJECTIVES

- Restore agricultural lands to wetlands to increase natural area extent, while providing for natural storage of water
- Restore wetland hydrology to improve native plant and animal species abundance and diversity in Loxahatchee River watershed natural areas, river, and estuary
- Reduce water quality degradation risk associated with increasing basin flow deliveries to Loxahatchee River
- Increase recreational opportunities at restored natural areas

PDT DISCUSSION