

DRAFT

Outline/Template for Corps of Engineers System Wide Improvement Framework (SWIF)

Non-Federal Sponsor District Letterhead

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Executive Summary

Provide an overview of the SWIF contents, including the expected date for overall completion of all rectification work.

1. Introduction

[*Levee Sponsor name*] is the sponsor for the [*river name*] levee systems. In [*give year*], the [*river name*] levee systems were rated "Unacceptable" and became inactive and no longer eligible for rehabilitation assistance in the United States Army Corps of Engineers (USACE) Public Law 84-99 Rehabilitation Program. [*Levee sponsor name*] submitted a System Wide Improvement Framework (SWIF) letter of intent to USACE requesting two years of temporary PL84-99 eligibility while a SWIF is developed. The SWIF letter of intent was approved by USACE on [*Date signed by DCO/CECW-HS*]. This plan is intended to fulfill the USACE SWIF policy requirements, outlining the schedule and approach to complete system wide improvements and restore the levee to USACE O&M standards.

The purpose of this SWIF is to define the overall plan for performing system wide improvements and correction of unacceptable deficiencies, including defining what levee systems are involved; what deficiencies and or system wide improvements are envisioned and how those improvements optimize flood risk reduction; who are the collaborating agencies and what is their role in the SWIF process; what regional considerations exist, if any; interim risk reduction measures that will be implemented, including alternate inspection standards during SWIF, overall integrated schedule and milestones for tracking SWIF implementation progress, and in the case of systems eligible for NFIP accreditation, proof that FEMA has been notified. All of these are discussed in the following paragraphs.

2. Discussion/description of Levee system

Identify levee system or systems covered by the SWIF, including system name and system identification number as listed in the National Levee Database. List the system name and all segment names, what the inspection ratings were for each segment and their sponsor. (The NLD number can be obtained from the USACE District). Example language follows:

1.a. The levee system (or systems) covered by this SWIF is/are listed in Table 1.

SWIF TEMPLATE

Note: Intent is to identify all segments within the system; the participating sponsors; the type of inspection (routine or periodic) and when it took place.

Levee System Name and ID Number	NLD Segment Name and ID Number	Latest Segment Date and Inspection Type	Rating	Sponsor Name
Typical Creek, Sample, NY, Right Bank Levee, NLD #2405000005	Huntington Metro segment, NLD# 2027615400	Routine inspection, 24-25 June 2010	A	X Flood Control District
Same as above	Factory Park segment, NLD# 2027614800	Periodic inspection, 24-25 June 2010	U	Y Flood Control District
Typical Creek, Sample, NY, Left Bank Levee, NLD #2405000004	Left Bank segment, NLD# 2027613200	Periodic inspection, 24-25 June 2010	M	Z Flood Control District

TABLE 1 – List of Levee Systems and Segments included in this SWIF LOI request.

1.b. *[Provide a brief description of the systems involved and map of each system. A sample description is given below.]*

Give overview of levee system features: The [name system] is comprised of [#] miles of levee, [#] feet of floodwall, [#] closures, [#] pumping stations, and was constructed in [year]. Major improvements and/or modifications, including [description], were completed in [year] [give reason, such as a result of breach, flood damage, etc].

Give overview of population and industry at risk: The leveed area includes [#] acres of residential land use, [#] acres of farmland, and [#] acres of industrial land use, including [list industry, for example a factory that produces PVC pipe] and other critical infrastructure, for example power plants, etc.]. The population at risk (PAR) is [list population number, e.g. 3500] day and [list nighttime population, e.g.3000] night. A map of the system is included.

Note: Population at risk (PAR) can be obtained from USACE. In the case where multiple systems are included in the SWIF, the intent for providing the consequences is to help the sponsor rank the systems based on risk, , where risk is the combination of probability of failure and the consequences that would occur as a result of that failure. For example, repairs to System A may take precedent over repairs to System B.

[MAP(s) GOES AFTER DESCRIPTION]

3. Description of proposed levee improvements and justification of how the SWIF optimizes flood risk reduction.

Provide an overview of the rectification work that is being proposed for the levees listed in paragraph 2 above including a complete list of the unacceptable deficiencies that will be addressed during SWIF and any system wide improvements that are planned. Corrective actions shall be prioritized by risk, where risk is the combination of probability of failure and the consequences that would occur as a result of that failure. Rectification work should focus on correcting the deficiencies or system wide improvements that pose the greatest risk to life safety first. The prioritization process shall be discussed here and include statements addressing optimized flood risk reduction.

This section should also include a discussion of the overall plan for accomplishing the work including overall rough cost of the rectification work, funding to be obtained, studies to be performed, acquisition of services proposed, and desired outcomes (USACE O&M standards, NFIP accreditation, etc.) once all work has been accomplished.

If levee modifications are envisioned, those should be discussed as system improvements. For Federal levees, this will require Section 408 processing.

If improvements are proposed to obtain NFIP accreditation, that should also be discussed.

If deficiency corrections are delayed because it makes economic sense to incorporate them with other broad improvements, that should be discussed.

Prioritize the schedule of improvements to reduce the risk from the highest risk deficiencies before lower risk deficiencies. When multiple levee systems are involved, consider improvements to the systems with the highest consequences (life safety, economic and environmental) should the levee fail during a flood event.

Include a discussion of the overall estimated cost for all rectification work, and how the levee improvements will be fully funded. Example language for funding discussion is as follows:

[Levee Sponsor name(s)] will secure all funding necessary for levee rectification work. The rough estimated cost for the rectification work is [give rough estimate]. We have [amount of funds] available from [give source(s)]. Any shortfall of funding to complete rectification work will be obtained from [give source(s)]. Corrective actions that have occurred since the last USACE inspection include: [Enter description here].

4. A plan and schedule for interagency collaboration, including environmental and/or Tribal consultation in the implementation of the SWIF.

The SWIF should identify all collaborating agencies, their contribution in SWIF development, and the schedule of when that contribution is required. USACE should always be listed as a collaborating agency. FEMA should also be included as a collaborating agency when National Flood Insurance Program (NFIP) is involved. Federal and state resource agencies, Tribes, local agencies, utility companies, private enterprise, etc. may be collaborating partners.

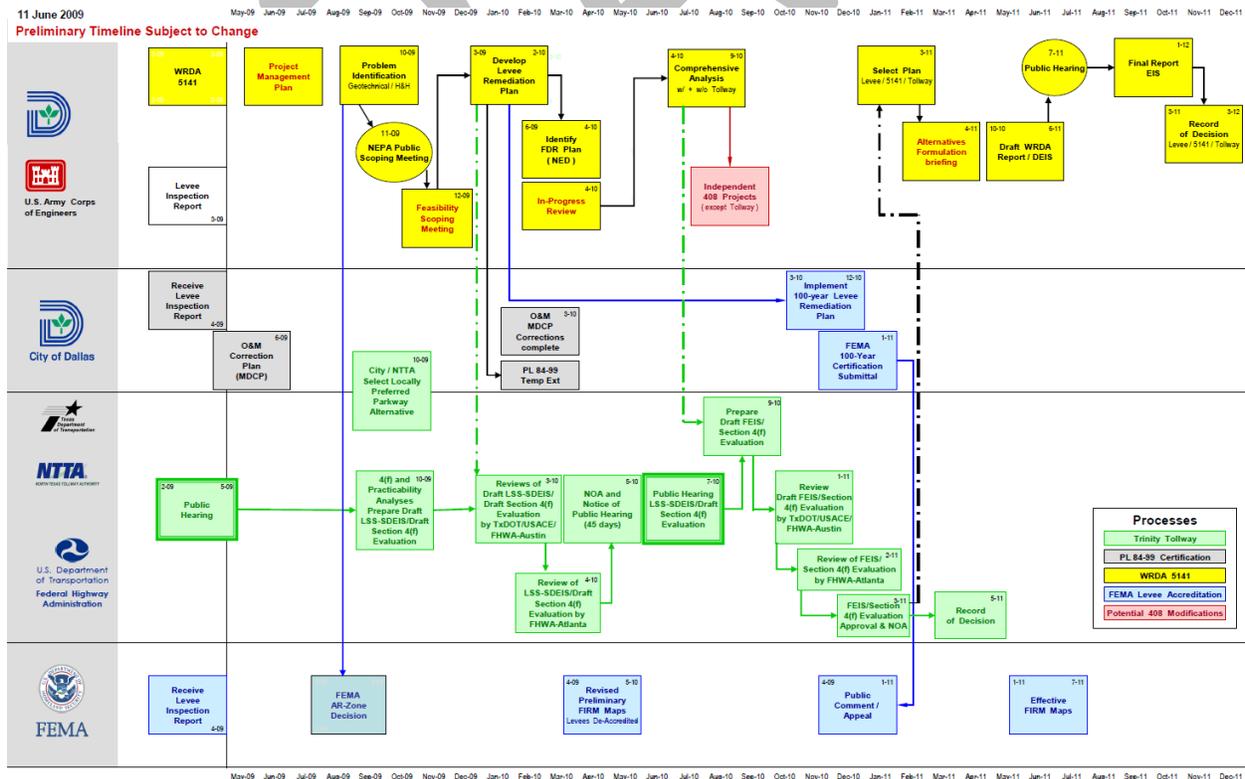
If major modifications to a Federal levee are envisioned, a Section 408 permit from USACE is required before modification can begin. Vegetation variances likewise require USACE pre-approval before implementation begins.

Where endangered species are a concern, environmental permitting by USACE and or Resource Agencies will likely be required before breaking ground on improvements. If a major utility is involved, scheduling plant shutdown may be a critical item.

If NFIP accreditation is desired, certification/accreditation may be important collaborative requirements.

All of these potential requirements should be flushed out during collaboration meetings; critical items identified and scheduled.

An example Gantt chart is attached here:



5. Documentation of specific agreements, such as project specific agreements, between levee sponsors and USACE or other agencies/organizations related to implementation of levee modifications, under Section 408 or other overlapping USACE policies and studies, applicable to the levee systems identified in the system-wide improvement framework.

Discuss any agreements that have a bearing on the overall execution of the rectification work. Examples include financial agreements that have specific sunset dates; agreements between a levee District and another agency related to levee modifications, (e.g., state highway department for levee impacts due to highway improvements); Section 408 permit from USACE for modification of a Federal facility; vegetation variance requests; changes in project authorization (de-authorization); agreements between the flood district and regulating agencies and/or Tribes, such as mitigation for environmental impacts; cost share agreements for USACE planning studies (General Investigations and/or Continuing Authority Program); long term real estate acquisition plan for future levee modifications (e.g. for future levee setback) or any other similar agreements that affect overall scope and execution of the system wide improvements.

6. Documentation of any regional considerations, approaches, and tools proposed for use during implementation of the system-wide improvement framework.

Discuss regional issues that affect the rectification work. Examples include environmental considerations such as endangered species, tribal treaty rights, water quality, and/or wetlands, etc. If any special collaborative approaches are planned those should be discussed. Examples may include standardized computation of mitigation requirements; standard damage repair approach for reaches with approved vegetation variances, or any other collaborative tools proposed for implementation under the SWIF.

7. Description of interim maintenance standards that will be implemented during the SWIF to mitigate conditions of uncorrected "Unacceptable" inspection items.

Explain how deficiencies will be maintained until they are corrected where corrective actions are deferred to later in the overall system wide improvement schedule. Intent is to not allow further deterioration of already unacceptable deficiencies while SWIF is implemented. For example, vegetation that is unacceptable, but considered low risk may be inspected following an already established protocol, or one that is collaboratively established for use while SWIF is implemented. The interim maintenance standard will be replaced with USACE O&M inspection standards once the deficiency has been rectified.

8. Interim Risk Reduction Measures (IRRM) plan, including a risk communication plan that addresses the risk to life increased by system-wide deficiencies.

The IRRM plan should be developed in accordance with Engineering and Construction Bulletin No. 2014-2 issued 5 March 2014, subject: Interim Risk Reduction Measures (IRRM) for Levee

Safety. At a minimum, the plan should be focused on risk reduction measures that reduce the risk to life safety due to the unacceptable deficiencies, and include discussion of emergency action plans, evacuation plans; risk communication efforts, flood fight capability including materials and equipment availability, flood monitoring, etc.

9. Schedules and milestones that will be used to monitor progress and to determine continued eligibility for P.L. 84-99 rehabilitation assistance while the SWIF is being implemented.

The schedule and milestones will be used by USACE to track the non-Federal sponsor's progress in executing the SWIF. Schedule should integrate all key activities, and provide clear milestones for implementing system wide improvements and correction of unacceptable deficiencies previously described. Milestones should include specific dates for complete rectification of unacceptable deficiencies, and other system-wide improvements. For example, collaborating agency input received, study complete, design complete, permits approved (e.g. Section 408 approval, variance approval, FONSI (if appropriate) signed, contract advertise, contract award, contract close-out, O&M Manual updated, or other significant milestones leading to complete levee restoration to USACE O&M standards, and any other milestones deemed appropriate.

A risk analysis of the overall execution schedule should be included. That is, a discussion should be included on assumptions that are the basis for corrective actions, and the possible consequence of those assumptions being incorrect. Discussion should be included on assumptions that are the basis for assumed corrective actions, and the possible consequence of those assumptions being incorrect. Examples include geotechnical study to determine corrective actions such as for seepage and piping repairs; or culvert video inspections that might determine widespread issues with culverts that were not known previously; or hydrologic/hydraulic analysis that exceed expected channel capacity, or real estate acquisition in time for rectification work. Any of these, and others could have a major impact to cost and schedule. These "risks" should be indentified in here so the overall SWIF execution schedule is fully defined.

With the schedule risks identified, a brief discussion of how USACE will be notified of missed milestones, and what the approach will be for schedule recovery, or extension.

10. Documentation that FEMA has been Informed of Levee status and of the SWIF.

For those levee systems shown as accredited on the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map that are part of the SWIF, demonstration that FEMA has been informed that these levee systems with "Unacceptable" inspection items are being addressed in a system-wide improvement framework. Please note that an extension of eligibility for rehabilitation assistance through the SWIF process by USACE does not constitute an extension of accreditation for FEMA purposes. FEMA determines how a SWIF may or may not impact accreditation.

11. Summary

Recap of the discussion above, including an overall SWIF completion date, commitment to keep USACE informed of progress, and restating the commitment to restore the levee systems to USACE O&M standards.

Appendices – As appropriate.

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- B.
- C.

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