SAN FRANCISCO PUBLIC UTILITIES COMMISSION INFRASTRUCTURE CONSTRUCTION MANAGEMENT PROCEDURES	
SECTION: SFPUC INFRASTRUCTURE CONSTRUCTION MANAGEMENT	APPROVED:
PROCEDURE NO: 037	DATE: 6/7/2019
TITLE: ENVIRONMENTAL INSPECTION AND SPECIALTY ENVIRONMENTAL MONITORING	REVISION: 1

1.0 Policy

Environmental inspections and specialty environmental monitoring are performed to observe the work being done and to verify that the work is complying with project environmental requirements and permits. This Procedure applies to all personnel working on the SFPUC Infrastructure Construction Management (CM) Program to the extent that their work is affected by these SFPUC Infrastructure CM Procedures and does not conflict with specific San Francisco Public Utilities Commission (SFPUC) policies or the Contract under which the Work is executed.

2.0 Description

This CM procedure describes the procedures for conducting Environmental Inspection and Specialty Environmental Monitoring activities.

3.0 Definitions

3.1 Construction Management Information System (CMIS)

The CMIS is an on-line management tool for the efficient and effective storage and retrieval of various documents generated during a construction project. Processing of environmental procedures will utilize the CMIS Daily Inspection Reports module and the Non-compliance notices module, which are process-specific portions of the CMIS application designed to facilitate the processing of environmental procedures; retention of data pertinent to environmental inspection, specialty environmental monitoring, and environmental noncompliance notices; and reporting of these processes and their status. The CMIS is also designed for Contractor entry and RE response directly into the system.

3. 2 Mitigation Monitoring and Reporting Program (MMRP)

The MMRP includes 1.) the California Environmental Quality Act (CEQA) mitigation measures, 2.) means of implementing and enforcing mitigation measures, and 3.) means of monitoring or reporting on the implementation and enforcement of mitigation measures. The MMRP was prepared to ensure that mitigation measures imposed to mitigate or avoid significant environmental effects are implemented in compliance with the Public Resources Code section 21081 and CEQA Guidelines.

3.3 Sensitive Resources

Biological species, cultural resources, or other resources that are to be protected from construction activities are categorized under sensitive resources. Sensitive resources are identified in environmental permits and mitigation measures and include, but are not limited to, wetlands, streams, riparian vegetation, federally and state listed species, migratory birds, raptors, cultural, and paleontological resources.

3.4 Environmental Signage and Flagging

Environmental signs are designed and produced by the project Environmental Compliance Manager and posted in the field by the Environmental Inspector and/or Specialty Environmental Monitors. Environmental signs are meant to provide construction personnel with warnings that a unique environmental compliance mitigation measure or permit condition needs to be implemented at a particular location (e.g., "Monitoring Required During Clearing, Grading, and Trenching"). Environmental signs can also be used to prevent non-compliance events by warning construction personnel to stay out of an area (e.g., "Sensitive Resource Area-Keep Out") or warning project personnel not to use a particular unapproved access road (e.g., "No access by project vehicles"). Signs should measure 11" x 17" or 8 ½" x 11" and be printed in bold Arial font on brightly colored paper. Blank white signs should also be available for use. Signs should be laminated to increase weather resistance and can be posted on wood lath, metal stake, existing fencing, etc. Flagging includes 3-inch wide yellow "Keep Out" tape.

4.0 Responsibilities

4.1 Environmental Construction Compliance Manager (ECCM)

At the program level, the Environmental Construction Compliance Manager (ECCM) is responsible for overseeing the effectiveness program wide environmental inspection and specialty environmental monitoring activities.

4.2   Project Environmental Compliance Manager (ECM)

At the project level, the (ECM) manages and assigns Environmental Inspectors and Specialty Environmental Monitors; maintains quality and consistency; and coordinates with the Environmental Inspectors and Specialty Environmental Monitors regarding mitigation and permit requirements.

4.3   Lead Inspector, Quality

On each project, one Lead Inspector (responsible for quality inspections) will be designated "lead" inspector for the CM team members to assist the RE and ECM in planning for and coordinating all inspection activities. The Lead Inspector reports to the RE. The Lead Inspector is also responsible for coordinating with the Environmental Inspectors on a daily basis regarding the Contractor's schedule of activities and issues related to environmental compliance. The Lead Inspector also reviews the Environmental Inspector's daily reports for completeness.

4.4   Environmental Inspectors

Environmental Inspectors are assigned, as needed and required, to the CM team and carry out the day-to-day inspection of the Contractor's activities related to environmental mitigation measures and permits. Environmental Inspectors report to the designated Lead Inspector. The Environmental Inspector will coordinate daily with the Lead Inspector to discuss environmental issues or concerns, resolutions to non-compliance issues, and to coordinate upcoming construction activities that require a higher level of environmental inspection or specialty environmental monitor presence.

Responsibilities of the Environmental Inspectors include, but are not limited to:

4.4.1   Environmental Inspectors are the key field staff responsible for ensuring that the project is constructed in compliance with project mitigation requirements, permit conditions, environmental plans, environmental specifications and other agency agreements. Environmental Inspectors accomplish this objective by evaluating, documenting, and verifying that the Contractor's construction activities comply with all applicable environmental requirements.

4.4.2   Acting as a liaison between the construction personnel (i.e., Contractor personnel, City field personnel, City CM personnel, etc.) and agency field representatives;

4.4.3   Informing the Lead Inspector or applicable Inspector   of the status of environmental issues in their respective areas;

4.4.4   Assessing work area conditions prior to construction activities and noting concerns and requirements;

4.4.5   Providing advance notice to the Lead Inspector of conditions and situations that require specific awareness and planning;

4.4.6 Coordinating Specialty Environmental Monitor activities on a daily basis;

4.4.7 Coordinating daily with construction representatives (e.g., Lead Inspector, Contractor, etc.) to verify that the project construction limits are marked, flagged, and fenced as required prior to construction progressing through an area;

4.4.8 Coordinating with the ECM and ECCM as necessary on permit and compliance issues;

4.4.9 Posting environmental signs (e.g., "Monitoring required during …" "Sensitive Resource Area – Keep Out: etc.) Ahead of construction site areas to alert the contractor to any specialty environmental monitoring requirements or sensitive resource areas.

4.4.10 Ensure completion of applicable environmental training off all onsite personnel.

4.4.11 Environmental Inspectors and Specialty Environmental Monitors have the authority and obligation to temporarily halt or redirect a construction activity in certain situations. These situations include when an activity has the potential to have a significant negative impact (i.e., non-permitted) on sensitive resources (e.g. cultural resource sites, wetlands, riparian habitat, protected species, etc.). In all instances, the Environmental Inspector or Specialty Environmental Monitor will attempt to coordinate with the Lead Inspector and/or RE before halting or redirecting a construction activity. Environmental Inspectors and Specialty Environmental Monitors will use sound professional judgment and will not exercise halting or redirecting work authority unless the situation could cause harm to the following sensitive resources:

- A protected species;

- Protected cultural resources or human remains; or

- Paleontological resources.

If the Lead Inspector or RE is not immediately available and harm could occur if the activity is not immediately halted or redirected, then the Environmental Inspectors and Specialty Environmental Monitors should take immediately action followed by notification to the Lead Inspector, RE and Senior ECM. Notification should be via a phone call that is followed-up by a written report daily report or log. As necessary, the Environmental Inspectors and Specialty Environmental Monitor should ensure that temporary fencing, flagging, signage or other protective measures are implemented to protect the resource until construction is approved to proceed in the area.

4.5 Specialty Environmental Monitor

Specialty environmental monitoring may be required when a project has a high potential to affect sensitive resources, including biological, paleontological, and cultural resources. Specialty Environmental Monitors report to the Environmental Inspector. Specialty Environmental Monitors are assigned, as needed and required, to the CM team and carry out the day-to-day monitoring of the contractor's activities related to environmental mitigation measures and permits. Specialty Environmental Monitors may also conduct biological surveys prior to and during construction.

Responsibilities of the Specialty Environmental Monitor include, but are not limited to:

4.5.1 Specialty Environmental Monitors will be provided with a copy of the Environmental Inspection Training course materials and may attend the Environmental Inspection Training prior to the start of construction activities. Specialty Environmental Monitors will also attend the CMIS training.

4.5.2 Perform monitoring for the following variety of reasons: ensuring there are no impacts to protected resources; ensuring that, if a resource is encountered, it is relocated prior to construction in the area (e.g., move a protected species when permitted to do so); and ensuring that appropriate actions are implemented if a resource is inadvertently discovered during construction (e.g., buried archaeological resources).

4.5.3 Specialty Environmental Monitors will also perform surveys ahead of and during construction to determine the presence/absence of protected species.

5.0 Implementation

5.1 Environmental Inspectors

5.1.1 Environmental Inspectors will maintain in their field vehicles a copy of the project environmental specifications and permits to help facilitate their inspection activities.

5.1.2 Environmental Inspectors will attend Environmental Inspection Training performed by the ECM and Construction Management Information System (CMIS) training provided by others (e.g., CMIS Administrator) prior to the start of construction activities. Environmental Inspector Training topics include, but are not limited to the following:

- Roles and responsibilities,
- Communications,
- Preparedness,

- Reporting and Documentation,

- Cultural and Paleontological Resources,

- Wildlife and Plant Resources,

- Hazardous Materials Management including Spill Control and Containment,

- Storm Water and Water Pollution including Erosion and Sediment Control,

- Clean up and Restoration.

5.1.3　Environmental Inspectors will document compliance activities on Environmental Daily Inspection Reports and Non-Compliance Notices. These two reporting procedures are included in Procedure No. 043 and No. 038 respectively.

5.1.4　Environmental Inspectors will assist the ECMs in preparation of the Monthly Environmental Compliance Report. This reporting procedure is defined in Procedure No. 040.

5.1.5　Environmental Inspectors will halt or redirect specific non-compliant activities that have the potential to have a significant negative impact on sensitive resources.

5.2　**Specialty Environmental Monitors**

5.2.1　Specialty Environmental Monitors will monitor the construction activities at the locations identified in the Mitigation Monitoring and Reporting Program (MMRP), permits, and in other agency agreements.

5.2.2　Specialty Environmental Monitors will be provided with a copy of the Environmental Inspection Training course materials and may attend the Environmental Inspection Training prior to the start of construction activities.

5.2.3　Specialty Environmental Monitors document monitoring activities on Daily Monitoring Logs. This reporting procedure is included in Procedure No.042. In the event of a non-compliance event, the Specialty Environmental Monitor will immediately notify the Environmental Inspector. The Environmental Inspector, in coordination with the Specialty Environmental Monitor, will complete a Non-Compliance Notice or document the non-compliance in the Environmental Daily Inspection Report. Refer to Procedure No. 038 for procedures on completing a Non-Compliance Notice.

6.0   Other Procedural Requirements

None

7.0   References

7.1   Technical Specifications

None

7.2   SFPUC Infrastructure CM Procedures

No. 038   Environmental Non-compliance Notice

No. 042   Daily Monitoring Logs

No. 043   Environmental Daily Inspection Reports

7.3   Other

None

8.0   Attachments

037 - 1   Environmental Inspector and Specialty Environmental Monitor
            Preparedness Checklist

037 - 2   Revision Control Log

**Environmental Inspector and Specialty Environmental
Monitor Preparedness Checklist**

Environmental Inspectors and Specialty Environmental Monitors should review the following checklist with the Senior ECM to ensure that they have the tools and documents necessary to perform their work:

Key Contacts

- ☐ Resident Engineer (RE)
- ☐ Environmental Construction Compliance Manager
- ☐ Environmental Compliance Manager
- ☐ Senior Environmental Coordinator
- ☐ Inspector(s)
- ☐ Office Engineer
- ☐ Specialty Environmental Monitors
- ☐ Contractor's Key People (Project Manager, Contractor's Superintendent(s), etc.)
- ☐ Agency Representatives
- ☐ Who to Call for Help

Documentation and Communication

- ☐ Cellular Phone
- ☐ Phone Lists
- ☐ Camera
- ☐ Staple Gun and Staples
- ☐ Mallet
- ☐ Clipboard
- ☐ Broad Tip Permanent Marker(s) (for making up environmental signs)
- ☐ Field Journal, Pens/Pencils
- ☐ Engineer's Scale (for scaling project drawings)

Safety Equipment and Personal Gear

- ☐ PPE as required by project (e.g., hard hat, safety glasses, safety vest, etc.)
- ☐ Extra Key (hide-a-key)
- ☐ Strudy Boots
- ☐ Long-Legged Pants
- ☐ Shirts with Sleeves
- ☐ Rain Gear
- ☐ Sunglasses
- ☐ Sunscreen
- ☐ Work Gloves
- ☐ Cold Weather Clothing
- ☐ Water (1-gallon minimum)
- ☐ Extra Food
- ☐ Field Guides
- ☐ Binoculars

Signs (colored laminated 8.5-inch by 11-inches or larger when appropriate) Flagging, and Lath/Stakes

- ☐ Variety of Colored Laminated Signs depending on project: "*Sensitive Resource Area – KEEP OUT*"; Monitor Required during…; "*No Parking*"; etc.)
- ☐ Blank White Laminated Signs
- ☐ Lath or Metal Stakes (depends on how hard the ground is)
- ☐ Rolls of 3-inch Wid Yellow "*KEEP OUT*" Tape

Source Documents

- ☐ Contract Documents (specifications and drawings, be sure to identify resource locations and challenging areas for compliance on your project)
- ☐ Environmental Permits and Permit Applications
- ☐ Biological Assessment and Biological Opinion

- ☐ Contractor's Plans (project specific, modify as applicable)
    - ☐ Storm Water Pollution Prevention Plan (SWPPP)
    - ☐ Night Time Lighting Plan
    - ☐ Hazardous Material Spill Prevention Control and Countermeasure Plan
    - ☐ Dust Control Plan
    - ☐ Noise and Vibration Control Plan
    - ☐ General Blasting Plan
    - ☐ Traffic Control Plan
    - ☐ Frac-Out Contingency Plan
    - ☐ Others List

- ☐ SFPUC's Plans (project specific, modify as applicable)
    - ☐ Unanticipated Discoveries
    - ☐ Conceptual Revegetation and Restoration
    - ☐ Other

- ☐ Final Environmental Impact Report or Mitigated Negative Declaration
- ☐ Mitigation Monitoring and Reporting Program

Attachment 037 - 2
Revision Control Log

Revision No.	Revision Date	What changed?
Rev 1	6/7/19	• Minor format changes; • Attachments revised; • Revision Control Log updated.
Rev 0	11/14/16	Signed