

Technical Training for Top Side Site Service A Project Management Approach





Introduction

The Flow Monitoring Crew of the San Francisco Public Utilities Commission (SFPUC) Wastewater Enterprise Collections System Division presents:

How we developed a technical training program for servicing flow monitoring equipment in the field using project management tools. Top Side Site Service.





Introduction

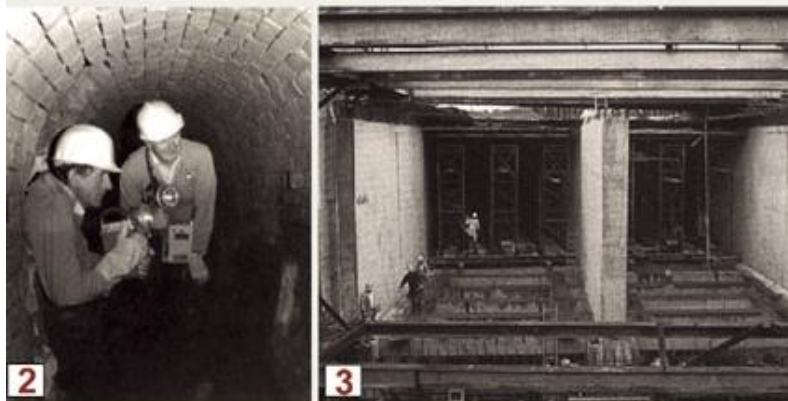
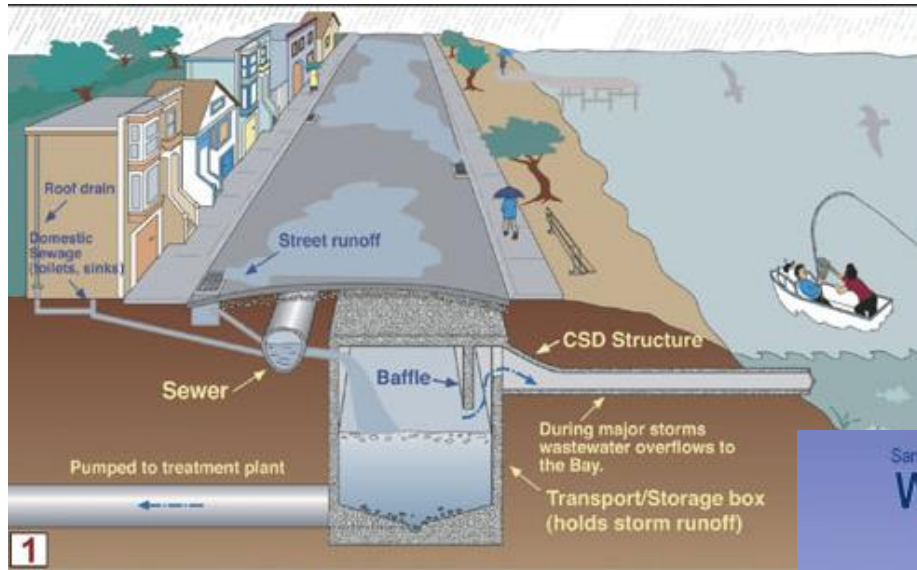
Top Site Service Technical Training Production

Project Team

Chis Albon, Mitchelle Borja, Brenda Donald, Ashley Forney, Tim Paez, Azim Shaikh and Jonathan Smith

Introduction

The Combined System Why Monitor Flow?



COMBINED SEWER SYSTEM



Introduction



The
Combined
System
Why
Monitor
Flow?



Introduction

Chris Albon

- SFSU Geography

Techniques in Geographic Analysis

Geographic Information Science (GIS)

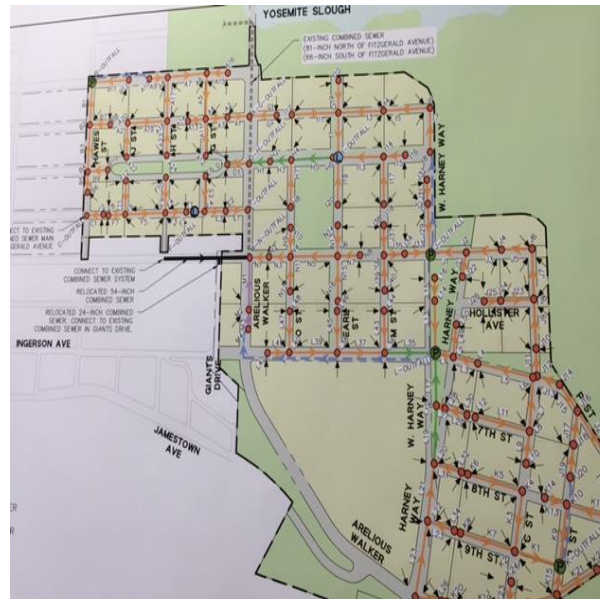
Water Resource Management



Introduction

Mitchelle Borja

- SJSU Engineering – Mechanical
- Technical Services
- Worked at CCC San in 2010



Introduction



Brenda Donald SFSU BA Biology

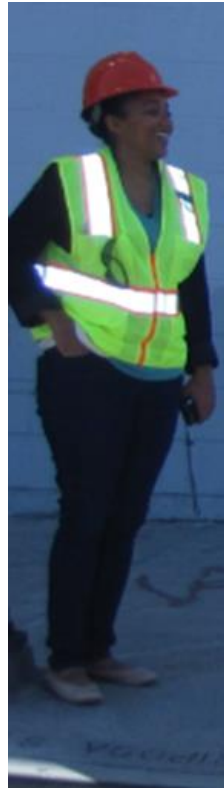
- Analytical and Process Control Lab, Source Control, Technical Training
- Sewer Authority Mid-Coastside 1991-2005
- SFPUC 2010 to present
- Baywork Prepared Staff Committee



Introduction

Ashley Forney

- Cal State East Bay
- Theater Arts



Introduction



Tim Paez

- Stockton U.
Pomona N.J.
- Geographic
Information
Science
- Hydrology
- Water Quality
Monitoring

Introduction



Azim Shaikh

- Chemistry in the Textile Industry
- Accounting
- San Francisco Cricket Club N.C.C.A.

Introduction

Jonathan Smith

- Linebacker for Tennessee State U Tigers
- United States Army
- Communications , Plant Tours
& Public Speaking



Program Background

- Call for training by Lewis Harrison, SFPUC WWC Collection System Division, Division Manager
- Awareness, Competence and Training Element the Environmental Management System ISO 14001



Classroom Training Logistics

- Classroom portion will be approximately 2 hours with one 10 minute break 1:50 to 2:00
- Restroom location

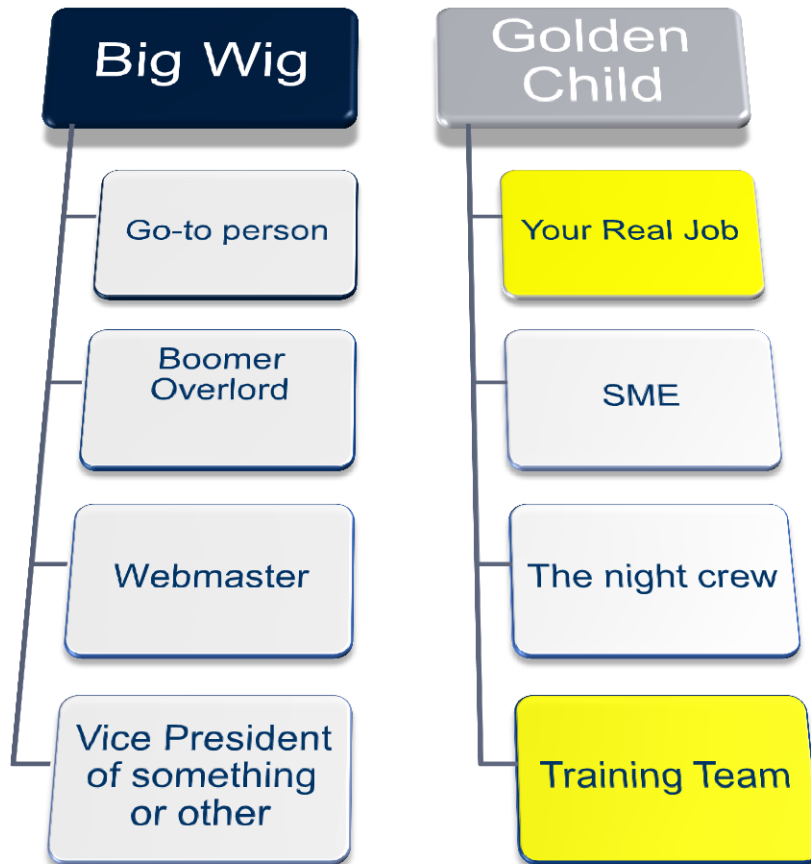


Ground Rules - Please



- Set cell phones on vibrate/silent and *put them away*
- Think of how can you apply this training to your job?
- **Avoid napping, ask questions and participate**

Learning Project Management



Most of the team participated in *Project Management for the Unofficial Project Manager by FranklinCovey®*

This training gave participants the tools to manage projects, even though they may not have hierarchical authority over all the team players



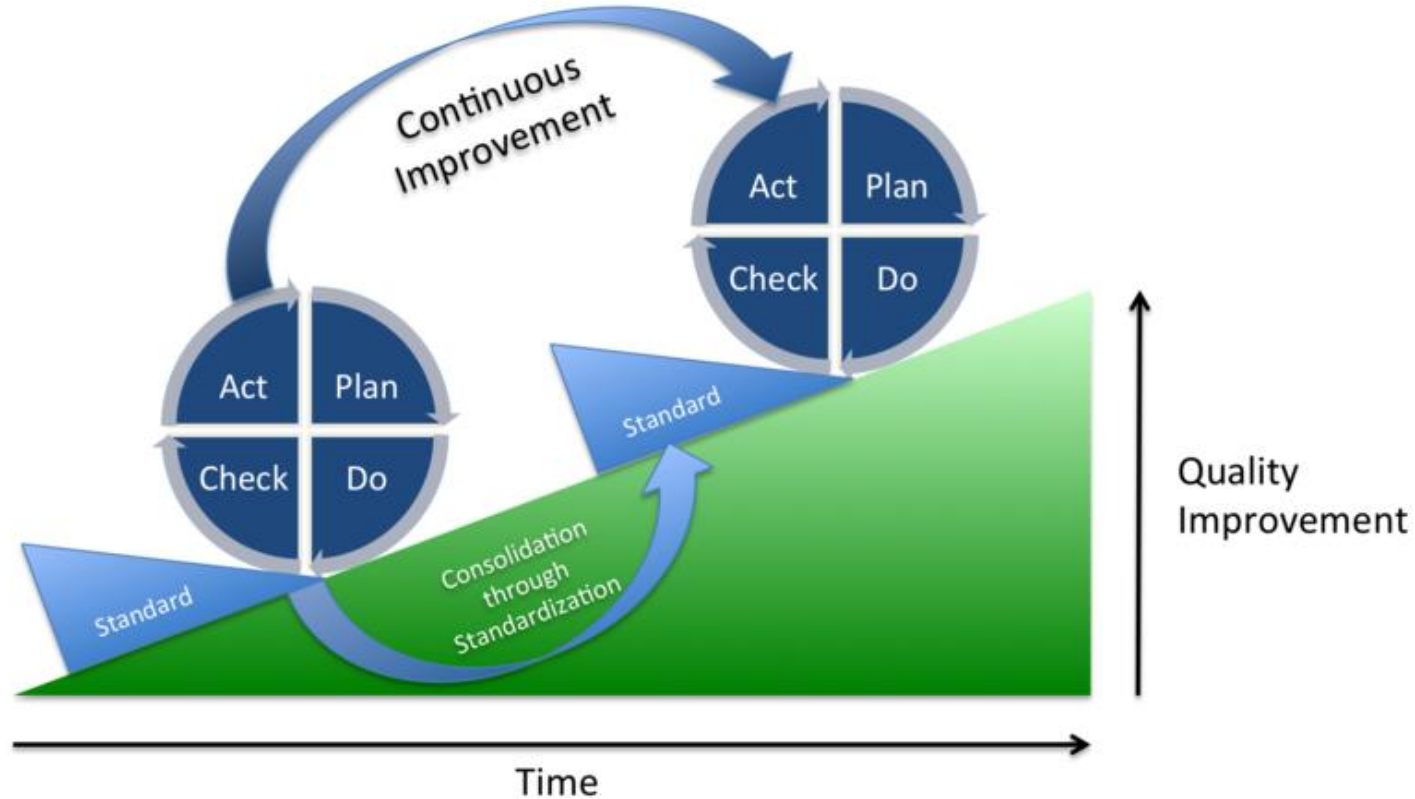
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Project Management Training (some of it)

- Identify training needs
- Identify all the stakeholders
- Map out the scope of the project
- Plan a risk management strategy
- Create a project schedule
- Hold each other to account and follow through
- Report the project status
- Document Lessons Learned
- Close the Project

Later in the presentation we will look at which tools we found the most useful for this project.

Plan, Do, Check, Act



Plan, Do, Check, Act

This is what we did –and our lesson plan

Plan

1. Identify training needs, Chis Albon
2. Identify the stakeholders , Mitchelle Borja
3. Commit resources, Brenda Donald
4. The team: dynamics and roles, Ashley Forney
5. Map a realistic project schedule, Tim Paez

Do

- 6. Videography tips , Jonathan Smith
- 7. Developing training delivery, Azim Shaikh

Check

- 8. Document learning, Brenda Donald

Act

- 9. Periodic review of the SOPs
- 10. Teach what we learned and get new feedback

Identify Training Needs – Chris Albon

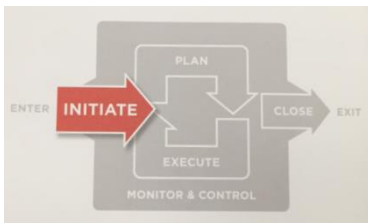
Identify the issues than needs standardization and training

Issue	Example
How does the Agency stay certified?	Write the SOPs required by State/EPA
How do we buy more equipment with all the new rules?	Figure out the new rules and write a “How To” Purchase Requisition SOP
How do we train all the new staff now that the boomers are leaving?	Tribal training/institutional drift <u>or</u> A standard approved SOP



Identify the Stakeholders – Mitchelle Borja

- Who are the stakeholders?
- What's in it for them?
- How committed are they?
- What resources and roles can they bring to the project team?



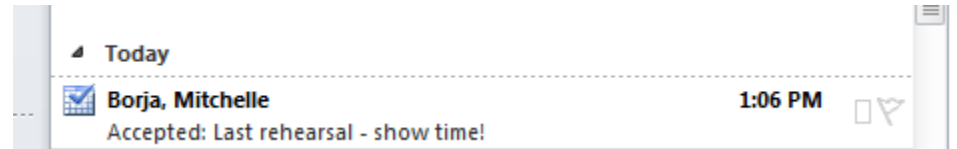


Commit Resources – Brenda Donald

Getting support for the project

- What resources are needed? Available?
- What is the scope of the project?
- What are the deliverables?

Keep track of commitments



Documentation	Support
E-mail receipts	Team meetings - Labor
Memo	Management's Role
Written or email request	Equipment



Team Development & Roles - Ashley Forney

Identify Roles

- Facilitator
- Project Manager
- Subject Matter Expert (SME) –experience performing the task

Skills

- Software: word processing, spreadsheets, presentations , meeting invitation, document management
- Video and photography
- Presentation
- **Time** management and **meeting** management



Team Development & Roles - Ashley Forney

Team Development Stages

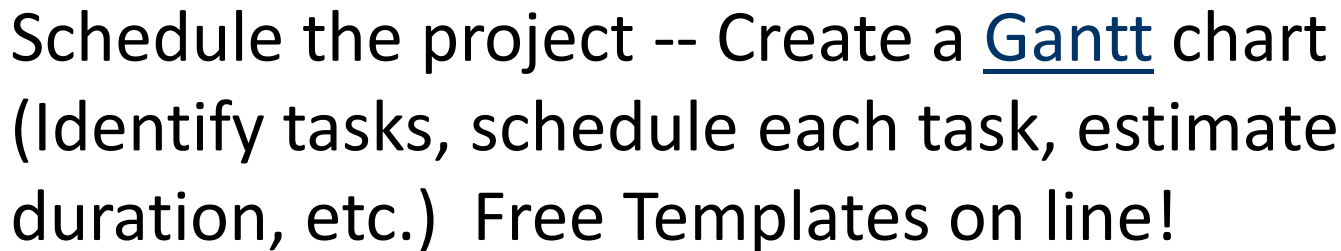
Citation - Developmental sequence in small groups. Tuckman, Bruce W. Psychological Bulletin, Vol 63(6), Jun 1965, 384-399. <http://dx.doi.org/10.1037/h0022100>

Forming, Storming, Norming, Performing and Adjourning

Stage	Behavior	Leadership Skill
Forming	Polite, Unsure	Guidance
Storming	Push back, Culture shock	Coaching
Norming	Agreement, Fun	Facilitation
Performing	Strategic focus	Participation
Adjourning	Party, Sad farewell	Toast



- Distribute agenda - including all stakeholders and team members
- Minutes for initial meetings

[illegible]



Developing the deliverables - Azim Shaikh

1. Start by a finely tuning a **Standard Operating Procedure (SOP)**
2. Next produce a visual **Presentation** with video and photos
3. Make an **On-the-job checklist**. Did the training work?

Q. Why don't you just hand them the SOP?

A. Presentation helps with retaining the knowledge

*"Tell me and I forget. Teach me and I remember.
Involve me and I learn."* Benjamin Franklin



The SOP – Brenda Donald

First: Research – Don't start from scratch

- Existing SOPs, manuals, QA/QC records
- Other Agencies, CWEA, Baywork, WEF, etc.
- Regulatory templates (EPA, Regional Board)

SOP Writing

- Use plain language, spell out acronyms
- Breakdown the procedure into learning objectives then tasks and steps
- Create a flow chart
- Include references, appendices



The SOP (continued)

Field Test the SOP- take draft into field

- Look for missing or forgotten steps and tasks
- Record unique and complex tasks electronically for use in the Presentation
- Document revisions
- Submit to manager and other stakeholders
- Revise as needed. Repeat until approved.

The Presentation

SOPs can be really dry, dull and unamusing.

- Create a Presentation to include interactive learning
- Use the video images taken in the field test
- Have the team split the delivery up to sharpen presentation skills



Videography tips Dos and Don'ts - Jonathan Smith

Do	Don't
Plan and rehearse the video segment	Figure it out in the field
Be patient with the actors	Shout at the staff with cameras rolling
Know the equipment (camera or smartphone)	Film upside down
Observe Health and Safety rules	Get injured



Jonathan show .MOV



And then.MOV



Ran out of room.MOV



IMG_0913.MOV

Delivering the Training – Brenda Donald

- Schedule classes
- Have team members deliver the training
- Record training in using a Learning Management System (software, file cabinet)





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Lessons Learned

Checking the Project Management Process in Retrospect .

- Did we identify all the stakeholders?
- Map out the scope of the project?
- Plan a risk management strategy?
- Create a project schedule?
- Hold each other to account and follow through?
- Report the project status?
- Document Lessons Learned?
- Close the Project?



The Products: Top Side Site Service

That concludes the Project Management aspect of this presentation.

The next part of this presentation will showcase our products for Top Side Site Service Technical Training.



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The Products: Top Side Site Service



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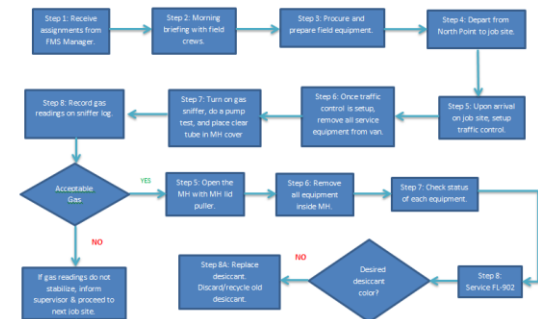
Top Site Service for Flow Monitoring Training Presentation



Flow Monitoring Site Equipment Service - Standard Operating Procedure (SOP) Flow Chart

7.0 FLOW CHART PROCESS OVERVIEW

Flowcharts are used in designing and documenting complex processes or programs. Like other types of diagrams, the following flowchart will help visualize what is going on and thereby help the trainee to understand the step-by-step process, find flaws, bottlenecks, and other less-obvious features within it.



Top Site Service: On-the-job Learning Review Check-list

Under normal conditions the Candidate must be able to perform each task successfully according to the referenced Standard Operating Procedure

Name of Participant:	Date of Review:	Name of Reviewer:	Notes:
Task Statement	Performed Correctly? Y/N Comment	References	Learning Objective
The Candidate received work assignment from crew lead during morning briefing including day plan, back up plan and additional safety information		SOP 8.3.2	LO 1
Field Prep and Site Service Checklist		SOP 8.3.3 and Appendix A	LO 2
Traffic Planning		SOP 8.3.4	LO 2
Navigate to job site safely		SOP 8.3.4	LO 3
Field Site Set up - Traffic Control, Sniffer Log, Safe Manhole Opening Technique		SOP 8.3.4	LO 4
Perform service - Wash down and remove equipment from manhole.		SOP 8.3.5	LO 5

Health and Safety Requirements

- Traffic control
- Keep 10 ft. from energized overhead lines
- Infectious material training
- Avoid poison oak and sunburn
- Back and fall protection

Which one is a “don’t?”



LO 2 – Pre-trip inspections

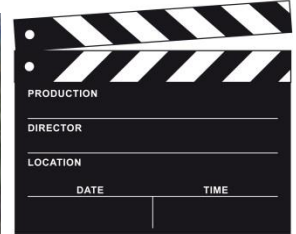
- Prior to leaving the yard, check the vehicle and the field equipment



Top Side Bucket Tape Measure Antenna Kit MH Pullers Disinfectants Knee Pads
Brush Install Kit FloDar Pole Trash Bucket Desiccants Blacktop Patch



Good Videography Opening a Manhole

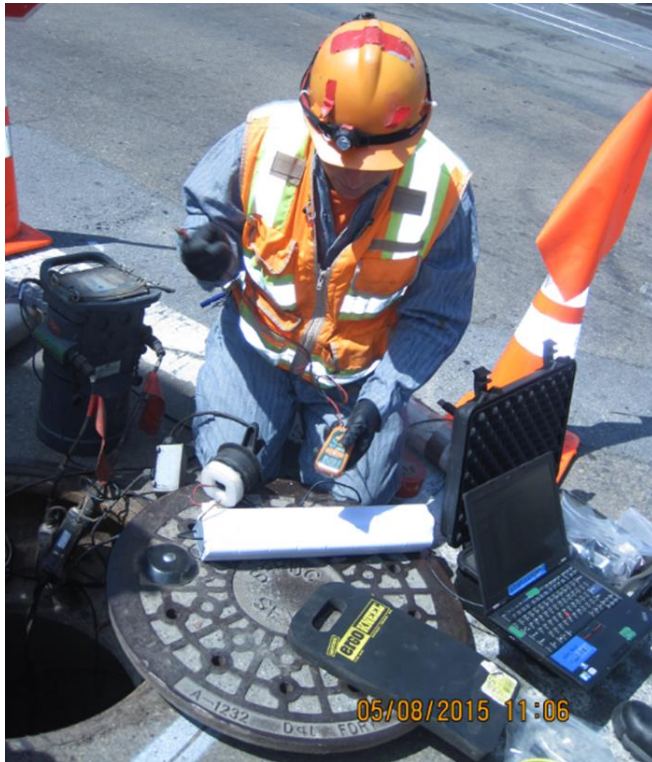


Learning Objective 5 – Perform Service

Troubleshooting

What if:

1. Can't connect to Logger?
2. Site is not calling?
3. No level or Velocity?



Delivering This Training



- Final approval
- Schedule classes
- Not there yet-Loose ends

Thank you and Questions

