

RECLAMATION

Managing Water in the West

Team Report: Effective Use of Safety and Occupational Health Staff within Reclamation

**Prepared By:
Safety and Occupational Health Action Plan Team 3**

Team Members

Bruce Muller	Reclamation Director of Security, Safety and Law Enforcement (Executive Sponsor)
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Colin Maloney	Regional Industrial Hygienist, Great Plains Region
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Report Date: December 21, 2015

Background

In July of 2013 the Department of the Interior's Office of Occupational Safety and Health reviewed Reclamation's safety and occupational health (SOH) program. The report concluded that "Senior leadership and line management have not established safety as an organizational value throughout all ranks of Reclamation and have not established accountability systems to ensure effective implementation of the SOH program at the working level. A degree of cultural complacency exists, which results in the acceptance of facility hazards and contributes to the presence of uncorrected facility hazards, OSHA non-compliance issues, and incomplete SOH program implementation."

Reclamation's SOH staff is comprised of 38 full-time and 24 collateral duty professionals. While supervisors and managers have the primary responsibility for assuring a safe workplace, SOH personnel advise and assist management in the development and implementation of the safety program. Their effectiveness in accomplishing this role has a great impact on the safety program implementation. In June 2014, the Deputy Commissioner, Policy, Administration, and Budget/Designated Agency Safety and Health Official released the Reclamation SOH Action Plan that identified Action Plan #3 – Survey SOH staff to determine how effectively they are being used.

Objectives

The following objectives were met to accomplish this task:

1. Develop a survey for safety managers, full time safety personnel, and collateral duty safety representatives (CDSRs) that captures the following information:
 - Geographical area and the number of employees the safety person supports
 - Percent of time dedicated to SOH duties as identified in their position descriptions (PDs)
 - Determination of other duties as assigned, and the time spent on those duties, that may or may not be identified in their PDs
 - Type of training and professional knowledge
 - Professional certifications/education
2. Identify opportunities for improved effectiveness and/or efficiency
3. Develop implementing strategies for actions approved by the Reclamation Leadership Team (RLT)
4. Collect benchmarks from other Bureaus, Agencies and the private sector

It was discussed with Gray Payne and Bruce Mueller that the objective to collect benchmark data from other Bureaus, Agencies and the private sector would be removed. It was felt Reclamation is its own entity and should be guided by what it feels works best for their regions instead of trying to conform to how other businesses/agencies use their SOH personnel.

Overview of Survey Results

In March of 2015 results of the initial survey of Reclamation's SOH personnel were received and compiled as outlined in [Attachment 1](#). The following significant results were captured from the survey:

1. It was determined that PDs for CDSRs do not always reflect an actual percentage of time that should be spent on SOH duties. The range reported 0 – 25% was listed on PDs, but actual time spent ranged from 20 – 100%.
2. For both full-time SOH personnel and CDSRs, 0 – 60% of time was spent on non-PD activities such as hazardous waste and emergency management programs, administrative duties, and integrated pest management.
 - In reviewing comments on activities not in the PD it was evident many SOH personnel expected to have an inclusive list of everything required of them for their job in the PD. Examples include respiratory protection, respirator fit testing, and conducting inspections.
3. In response to the question “How confident do you feel that you can provide adequate safety support?” (Range: “1 Not Confident” to “5 Very Confident”). The responses ranged for full-time SOH from 2-5 and CDSRs from 3-5.
4. In response to the question “Do you feel you have adequate SOH personnel to cover their required locations?” Only one region felt they could 100% cover their locations and the rest of the regions ranged from 75 – 100% that they could not. Note: In retrospect using a range may have diluted the responses compared to directly asking for a yes or no response.
5. In response to the question “If you could make any personnel changes to increase the effectiveness of the SOH program what would that be?” 55% of the responses said to increase the number of SOH staff. This result does directly correlates to the question in #4 above. The next highest result of 14% felt safety locations and oversight needed to be rearranged in the regions.

We were asked to send out a follow up survey to get an idea of how SOH personnel perceived management and area office involvement concerning the safety program. This survey had a 60% return rate, and is fully described in [Attachment 2](#). The response scale ranged from 1-5 with “1 Do Not Agree” to “5 Highly Agree”. Review of the responses noted the following:

- Overall, it was felt regional and local management were “Very Involved” with most responses either a 4 or a 5; however, it was also felt that regular employees were only “Somewhat Involved” with most responses a 3.
- Responses indicated that they felt employees did feel empowered to identify unsafe conditions, as well as SOH personnel, in order to make changes to the safety program.

[Geographical Representation of Safety Personnel Throughout Reclamation](#)

The maps located in [Attachment 3](#) provide a visual of each region's full-time and collateral duty SOH personnel locations and the areas they cover. The mileage ruler gives approximate straight-line distances between locations.

Only facilities where there is a Reclamation Safety Program requirement are displayed on the maps.

- Reclamation facilities are shown by a blue dot ●
- Full-Time SOH Specialists are identified by a GREEN STAR ★
- Collateral Duty Safety Representatives (CDSR) are identified by a GREEN TRIANGLE ▲

[Regional Comments on Maps](#)

The Regional Safety Managers were contacted to review their region's map accuracy and asked to provide comments on their region's safety program as it pertains to Team 3's objectives. These are provided below:

[Great Plains](#)

Our greatest challenge is our geography. It is difficult to provide frequent on-site consultation services to the field and facilities due to travel distances.

The Great Plains Region has evaluated our safety staffing levels. Plans are underway to add one safety specialist to the Regional Safety Office for region-wide safety and industrial hygiene support. Each of the three Area Offices with power facilities have been encouraged to add an additional safety specialist to assist with on-site field consultation and assessments. Two of the three full-time SOH professionals at the Great Plains Regional Office have Regional responsibility. The third has responsibility for the Regional Office itself.

[Lower Colorado](#)

Unlike other regions, we do not yet have a safety specialist at the LC Regional Office. The Regional Office plans to hire a specialist to serve the Regional Office, construction, and administrative support.

The Phoenix Area Office has a part time safety specialist for a single office primarily managing contracts and inspections of transferred works.

The Yuma Area Office has just added a second full-time safety specialist. The YAO has numerous pumping wells, canals, a desalinization facility to maintain (contracted), and multiple canal maintenance facilities along the Colorado River to Mexico.

Mid-Pacific

The full-time Industrial Hygienist also supports the Lahontan Basin Area Office as their Safety Specialist. The curved arrow on our map represents this responsibility.

Of the three full-time SOH personnel located at the Regional Office, two have regional responsibility, and one has responsibility for the Regional and Bay Delta offices only. The Regional Office has recently added an additional Safety Specialist to provide more region-wide support.

Pacific Northwest

Even though there are four full-time SOH personnel at Grand Coulee (within the geographical boundary of the Yakima Area Office) they do not provide safety program support outside of Grand Coulee. Of the five full-time safety personnel in Boise, three have Regional responsibility, one has responsibility for the Regional office only, and the other has responsibility within the black-lined area.

Upper Colorado

CDSRs and SOH Specialists do not cover transferred facilities, but only those facilities with Reclamation personnel. The SOH Specialist from Flaming Gorge Field Division at Montrose, and the Flaming Gorge CDSR both currently cover Fontenelle Dam. The UC Region is in the process of hiring a full-time SOH Specialist to be strictly for Flaming Gorge and Fontenelle. We also have an open slot for a SOH Specialist that initially was to be located in Montrose, but now is being moved to Albuquerque. UC SOH coverage will be even better as we get open positions filled. When all positions are filled there will be two SOH Specialists for Albuquerque, the Montrose SOH Specialist will cover only the Western Colorado Area Office and Curecanti facilities, and Flaming Gorge/Fontenelle will be covered by a new full time SOH Specialist.

Recommendations

Recommendation 1 – Each Regional Director should conduct and document a risk exposure assessment to determine the number and distribution of SOH positions within their region and take action to make any personnel adjustments they determine to be necessary.

The survey indicated that there was not adequate safety staff to provide coverage for all their locations. 55% of the comments received regarding changes would increase the effectiveness of safety staff were to increase the number of full-time safety personnel. It is apparent when reviewing the maps that some safety personnel are asked to provide coverage over great distances, making it extremely hard to provide adequate service.

- SOH staffing levels could be based on a risk exposure assessment, versus staffing based on the number of people supported.
- The risk exposure assessment would identify the number of safety programs that need to be implemented. This would drive the number and type of safety personnel required to accomplish the implementation.

Recommendation 2 – The Reclamation Safety Council should work with Human Resources Community to develop model language for CDSR position descriptions

CDSR Position Descriptions (PDs) are not consistent within Reclamation. The following observations were made from survey results and a review of the PDs collected from the regions:

- Some PDs did not specify any safety related duties
- Some PDs specified safety duties, but not the percentage of allocated time for them
- Surveys received indicated that 25% or less was identified in their PDs, but actual time spent on safety duties ranged from 20 – 80%.

It is recommended that a CDSR Template be developed outlining basic safety program activities that can be “cut and pasted” into a PD when that activity is assigned to an individual. This would enhance the safety culture throughout Reclamation by providing consistency in responsibilities. This template would include the duties, the expected percentage of time needed for each duty, and the training courses that need to be included in their Individual Development Plans.

Recommendation 3 – The Reclamation Safety Council should develop Reclamation-wide initial and ongoing training/development programs for both full-time and collateral duty SOH personnel.

Increasing the expertise and competence is crucial for our new full-time and CDSR SOH personnel. The following three proposed solutions presented below could be implemented individually or all in concert:

PROPOSED SOLUTION 1: Initiate a Rotational Safety Shadowing program

- Develop a program similar to the Mid-Pacific Rotation Engineer Program (see [Attachment 4](#)). This program would establish learning opportunities for newly hired full-time SOH professionals and CDSRs. They would shadow and work one-on-one with other SOH personnel to gain knowledge on how to develop and/or implement their safety program. An alternative would be to rotate established full-time SOHs as on-site trainers that are strong in different programs.
 - The Engineer rotation program lasts 18 months and encompasses various trainings throughout the region and Denver.

PROPOSED SOLUTION 2: Establish a formal SOH/CDSR training program

- Currently, there is not an established training program for full-time SOH and CDSRs, yet we expect them to be responsible for implementing a comprehensive safety program for our facilities and employees. It's highly recommended that a formal developmental program be developed for our Safety personnel that includes the following:
 - Courses put on by outside safety vendors/professional organizations
 - Annual regional safety workshops that are open to full time SOH personnel and CDSRs

PROPOSED SOLUTION 3: Initiate a Safety Mentoring Program

- Develop a regional and/or bureau-wide list of safety professionals delineating their area(s) of expertise. This would allow the full-time SOH and CDSR to contact or work with them expand their knowledge on that topic or discuss situations occurring at their location.

ATTACHMENT 1

INITIAL SURVEY QUESTIONS MARCH 2015

1. Are you a full Time SOH Employee?
 - 44 replied Yes out of 54 responses
2. If you are full time, are you responsible for other activities? Please list
 - Security, Hazmat, Wellness, Emergency Mgt. Administrative, Dive Team, Motor Boat Rep., Tort Claims
3. Are you a collateral duty safety official (CDSO)? List your official duty title
 - Civil Engineer, Civil Engineer Tech, Training Instructor, Technical Writer
4. For CDSOs: What is the % of assigned time to SOH duties as identified in your PD versus time actually spent doing SOH activities?
 - 0 -25% listed in PD
 - Actual time is 20 – 100%
5. For All: List SOH duties that you perform that are not identified in your PD
 - Hazardous Waste, Administrative, CGE-time cards, Emergency Mgt., Radiation Safety Officer, Integrated Pest Mgt.
6. For All: What percentage of your time is taken up by doing Non-PD activities?
 - 0 - 60%
7. For All: List the number of Dams/Powerplants/Projects you support and the states they are located in Differentiate between the ones you can visit in a day or less, and those that require more than one day to visit (overnight trips)
 - See Map Data
8. For All: List the number of employees you support.
 - See Map Data
9. How confident are you in being able to provide adequate safety support to the areas and employees you cover? (scale: 1:5 1-not confident . . . 5 very confident)

Region	Full SOH	CDSO
GP	3-5	3-5
LC	3-5	NA
MP	3-5	5
PN	2-5	4-5
UC	3-5	NA
DENVER	2-5	NA

10. Do you feel that you are able to perform the duties of your job as assigned and also adequately perform safety duties that arise? If not, please explain.

- 13 Yes 4 No 36 NA

11. Please list any professional certifications and SOH education that you have:

Region	Full SOH	CDSO
GP	OSHA 30, CSP, MS IND. MGT, BS, MS, CSHO	IE, AS CE,
LC	CIH, AS SAFETY, BS SAFETY MS SOH,	NA
MP	MPH, BS BIOLOGY/CHEMISTRY, CHCM, CHSP, CHMM, MA MGT	BA
PN	MPH, CIH, CSP, OHST, MS OC HEALTH, BS HR, COHS AHERA	OSHA 6K, OSHA
UC	CSP	NA
DENVER	BA, PE, CSP	NA

12. Is SOH Training/Experience required by your PD?

- Yes – 34 No – 5 2 – NA 12 – No Answer

13. If Yes from above, please list the training which is required by your PD. Include whether it is on or off site, recurrence frequency, etc.)

- Doesn't specifically state type of training, and most of the other responses were what they thought they should take or have taken

14. Please list the training/education/experience NOT required by your PD, but which you feel is required to accomplish the job.

- HECP, confined spaces, fall protection, technical management, behavioral psychology, Security Emergency Action planning, lead, asbestos, excavation and trenching, wilderness fire aid, cableway safety, RSHS train the trainer and many more

15. Do you feel you have adequate SOH personnel to cover your required locations?

Region	NO	YES
GP	100	0
LC	75	25
MP	100	0
PN	75	25
UC	0	100
DENVER	100	0

16. If you could make personnel changes to increase SOH effectiveness in your area, what would they be?

	ALL/MEAN	UC	GP	LC	MP	PN
INCREASE THE SAFETY STAFF	55	66	62	50	71	33
INCREASE CDSO STAFF	7	0	12	0	0	11
HIRE QUALIFIED STAFF	7	0	12	0	14	0
INCREASE PAY GRADE TO ATTRACT STAFF	7	0	0	50	0	11
INC TRAINING	3.5	0	0	0	0	11
INCREASED MGT SUPPORT	3.5	33	0	0	0	0
REARRANGE SAFETY'S LOCATION & OVERSIGHT	14	0	0	0	14	33

ATTACHMENT 2

FOLLOW-UP SURVEY DATA MAY 2015

1. Does your Local Management take an active role in your safety program?	2. Does your Regional Management take an active role in your safety program?	3. Do supervisors within your office take an active role in your safety program?	4. Do your employees feel empowered to identify unsafe work activities without retaliation?	5. Do Employees take an active role in your safety program?	6. As a safety professional in your area/region do you feel that you are empowered to make changes to the existing safety culture?	7. Does your reporting structure support the implementation of safety recommendations?	
3	4	5	3	3	3	2	
5	4	3	3	3	5	5	
2	3	2	1	1	3	2	
5	5	5	5	5	5	5	
5	5	4	4	4	5	5	
5	4	5	5	3	5	4	
5	4	5	5	3	5	4	
4	5	5	5	4	4	3	
4	5	4	5	4	5	4	
4	4	4	4	4	4	4	
5	5	5	3	3	5	5	
3	5	4	4	5	5	5	
5	3	5	4	4	3	3	
5	4	5	4	5	4	4	
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5	5	4	5	4	3	5	
5	5	5	5	2	3	5	
4	4	5	4	5	4	3	
5	5	5	4	4	5	5	
4	4	5	3	3	4	2	
5	5	3	3	3	5	5	
2	3	5	4	4	2	2	
3	3	4	4	3	4	3	
Ave Score	4.26	4.10	4.19	3.74	3.29	3.90	3.77
Mean	4.63	4.00	4.60	4.00	3.00	4.00	4.00
Mode	5.00	4.00	5.00	4.00	3.00	5.00	5.00

Scale is 1-5 with 1 do not agree and 5 highly agree

ATTACHMENT 3

SAFETY PERSONNEL VS NUMBER OF EMPLOYEES SUPPORTED

Denver Safety Office

*Denver/Washington Office – ~1000 (1 F/T Safety/1CDSR)

Great Plains Regional Office

Great Plains Regional Office – 85 [401] (3 F/T Safety)

Dakotas Area Office – 69 (1 F/T Safety/Security/HazMat)

Eastern Colorado Area Office – 105 (1 F/T Safety)

Montana Area Office – 79 (1 F/T Safety/Security/HazMat)

Nebraska-Kansas Area Office – 33 (1 F/T Safety/Security/HazMat)

Oklahoma-Texas Area Office – 23 (1 F/T Safety/Security/HazMat)

Wyoming Area Office – 92 (1 F/T Safety)

Lower Colorado Regional Office

Lower Colorado Regional Office – 356 [556] (1 F/T Safety)

Lower Colorado Area Office – 301 (6 F/T Safety)

Phoenix Area Office – 87 (1 F/T Safety)

Southern California Area Office – 9

Yuma Area Office – 159 (2 F/T Safety)

Mid-Pacific Regional Office

Regional Office – 435 [656] (3 F/T Safety)

CCAO – 160 (2 F/T Safety)

CVO – 61 (1 CDSR)

KBAO – 47 (1 CDSR)

LBAO – 34 (1 F/T Safety)

MPCO – 47 (1 F/T Safety)

NCAO – 180 (1 F/T Safety)

SCCAO – 127 (1 F/T Safety)

Pacific Northwest Regional Office

Pacific Northwest Regional Office – 304 [916] (4 F/T Safety)

Columbia-Cascades Area Office – 189 (1 F/T Safety/1 CDSR-Umatilla/1 CDSR-Bend)

Grand Coulee Power Office – 490 (6 F/T Safety)

Hungry Horse Field Office – 37 (2 F/T Safety)

Snake River Area Office – 113 (1 F/T Safety/1 CDSR-MSF)

Upper Snake River Office – 87 (1 F/T Safety)

Upper Colorado Regional Office

Upper Colorado Regional Office – 174 [682] (2 F/T Safety/1 CDSR-RO/1 CDSR-Provo)

Albuquerque Area Office – 168 (1 F/T Safety/1 CDSR-Albuquerque/1 CDSR-EB/1 CDSR-EP/1 CDSR-Alamogordo/1 CDSR-Alamosa/1 CDSR-Chama/1 CDSR-Socorro)

Four Corners Construction Office – 180 (1 F/T Safety/1 CDSR)

Curecanti Power Office Field Division – 134 (1 F/T Safety/1 CDSR- Flaming Gorge/1 CDSR-WCG/1 CDSR-WCD)

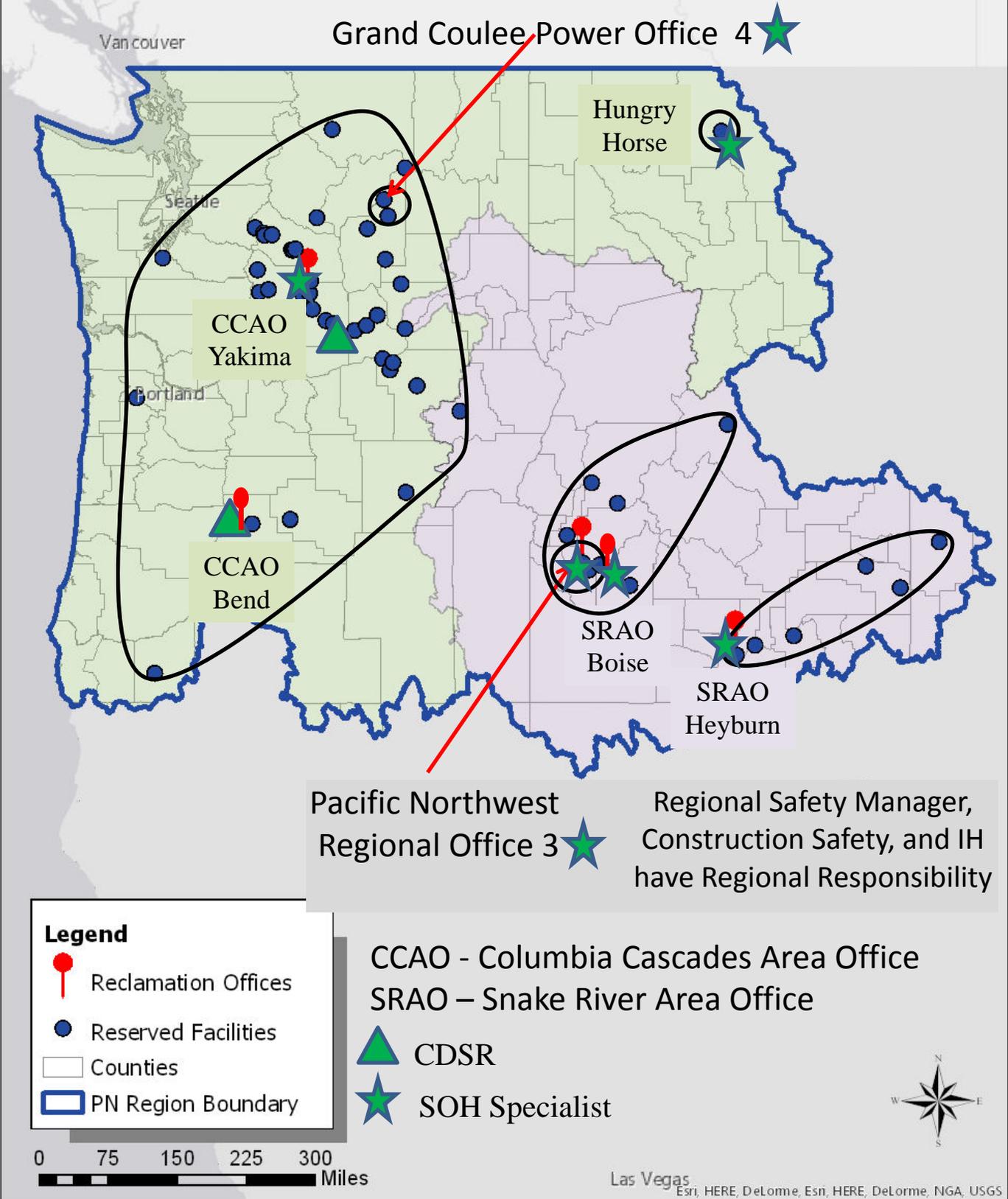
Glen Canyon Field Division – 200 (1 F/T Safety)

***Three full time safety personnel provide guidance and technical support.**

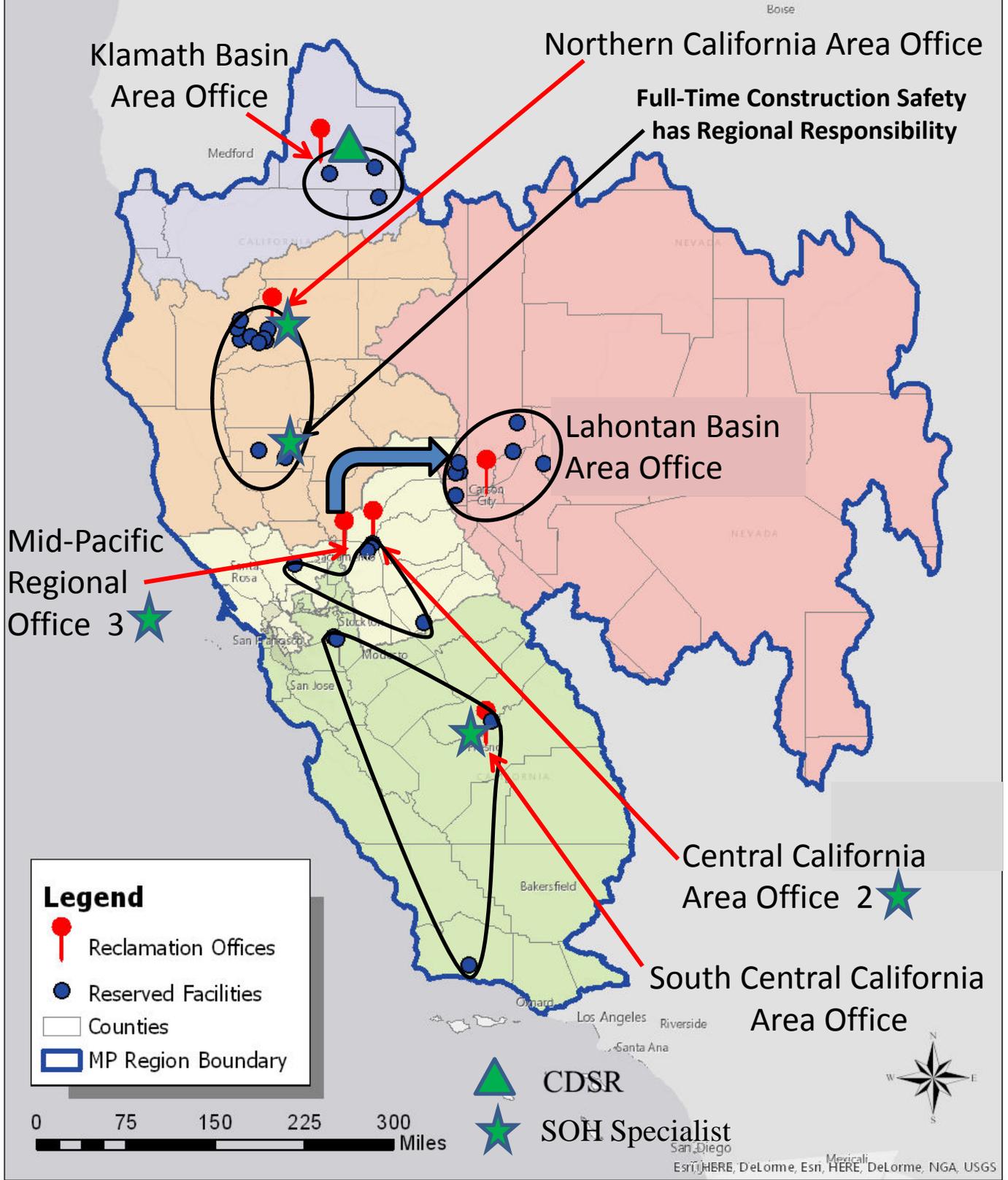
NOTE: All Regional Office Safety personnel are also responsible for their Regions.

NOTE: The [] numbers represent the number of employees in the area offices – Regional Office personnel are not part of this total. Number derived from each Region's intranet site.

Pacific Northwest Region Facilities and Dams



Mid-Pacific Region Facilities and Dams



Lower Colorado Region Facilities and Dams

Lower Colorado Regional Office 2  Regional Safety Manager and IH have Regional Responsibility

3  Three full-time SOH personnel based at Hoover serve the 3 dams

Southern California Area Office

Los Angeles

Las Vegas

Phoenix

Phoenix Area Office

Boulder Canyon Operations Office, Blythe, CA

Yuma Area Office

El Pa

Legend

 Reclamation Offices

 Reserved Facilities

 Counties

 LC Region Boundary

 CDSR (PAO has Part-Time Safety Manager)

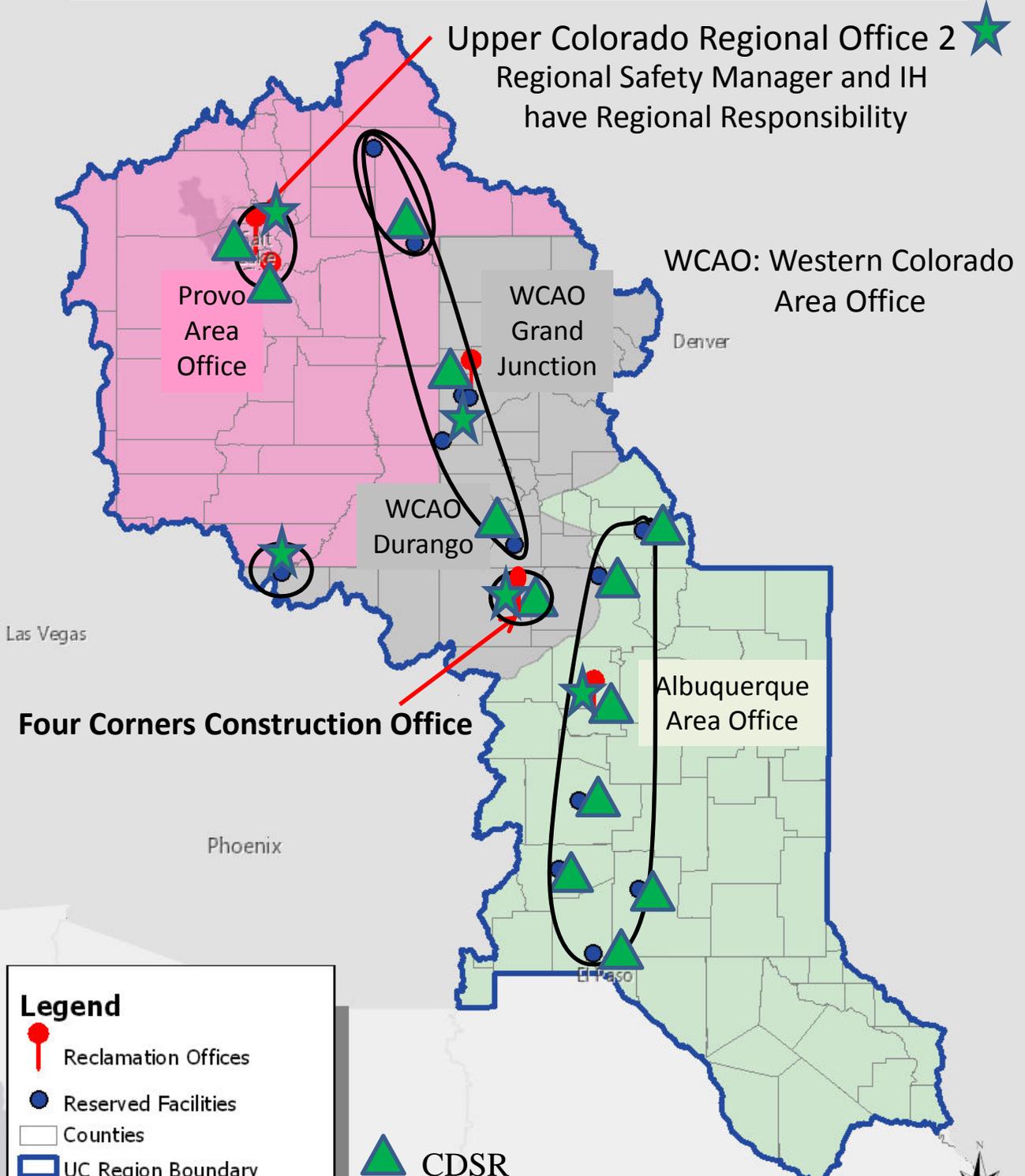
 SOH Specialist

0 75 150 225 300 Miles



Esri, HERE, DeLorme, Esri, HERE, DeLorme, NGA, USGS

Upper Colorado Region Facilities and Dams



Upper Colorado Regional Office 2
Regional Safety Manager and IH
have Regional Responsibility

WCAO: Western Colorado
Area Office

Provo
Area
Office

WCAO
Grand
Junction

WCAO
Durango

Albuquerque
Area Office

Four Corners Construction Office

Legend

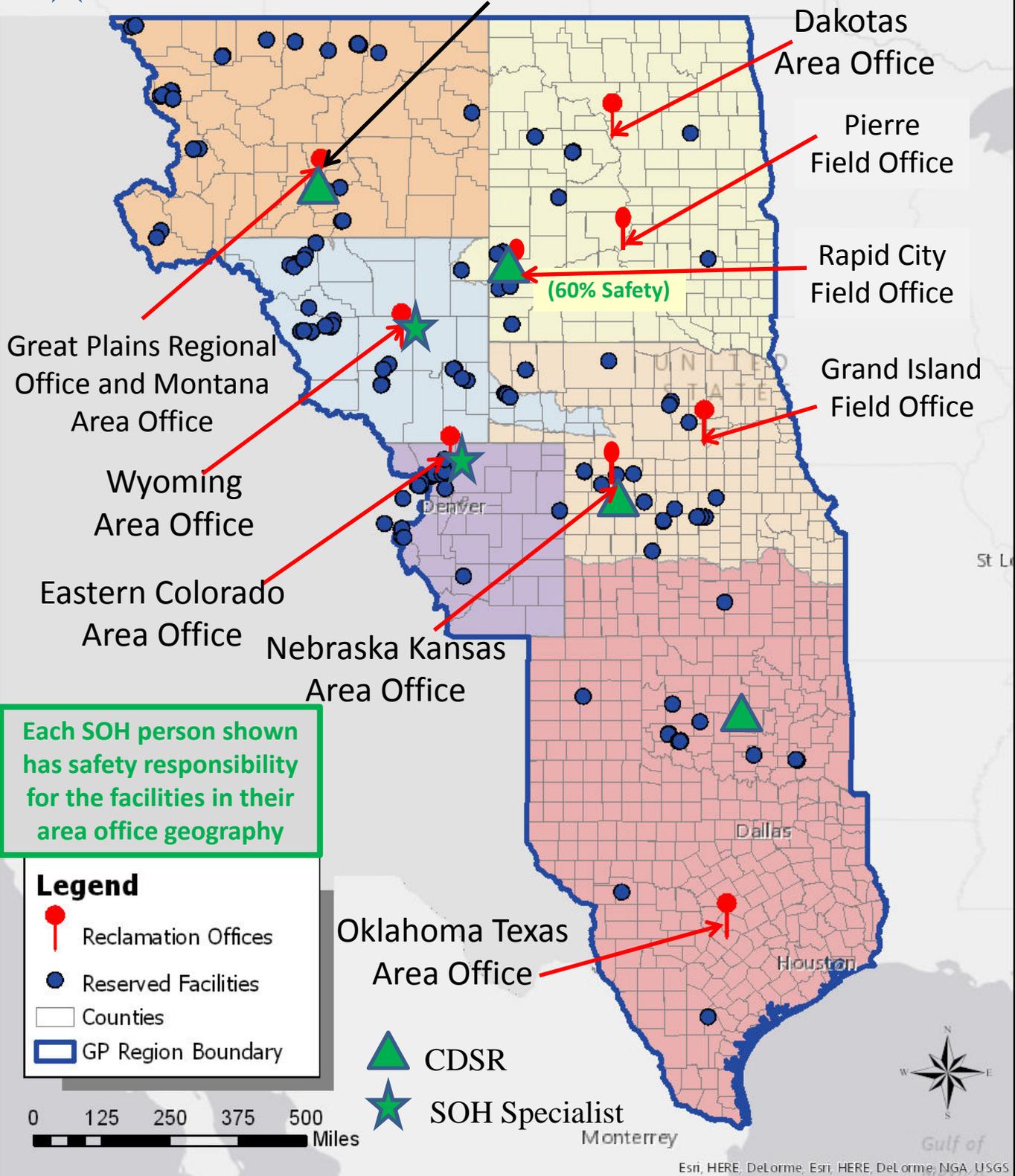
- Reclamation Offices
- Reserved Facilities
- Counties
- ▭ UC Region Boundary
- ▲ CDSR
- ★ SOH Specialist



Esri, HERE, DeLorme, Esri, HERE, DeLorme, NGA, USGS

Great Plains Region Facilities and Dams

3 ★ Regional Safety Manager, Construction Safety & IH all have Regional Responsibility



Dakotas Area Office

Pierre Field Office

Rapid City Field Office

Grand Island Field Office

Great Plains Regional Office and Montana Area Office

Wyoming Area Office

Eastern Colorado Area Office

Nebraska Kansas Area Office

Oklahoma Texas Area Office

Each SOH person shown has safety responsibility for the facilities in their area office geography

Legend

- Reclamation Offices
- Reserved Facilities
- Counties
- ▭ GP Region Boundary

▲ CDSR

★ SOH Specialist

0 125 250 375 500 Miles



ATTACHMENT 4 ENGINEER ROTATIONAL PROGRAM

Memorandum

To: Regional Training Officer
Michael Wilson, MP-500

From: Steven B. Melavic, Chief, Facilities Operations Branch, CVO-610

Subject: Rotation Engineer Program: _____, GS-0850-7, Training-Development Plan and Rotation Schedule, June 18, 2012 to Jan 1, 2014

Home Base: Central Valley Operations Office, Power O&M, Facilities Operations Branch

Home Base Supervisor: Steven B. Melavic, Chief, Facilities Operations Branch
Phone Number: 916-979-3008

Career Advisor: _____, Mechanical Engineer, Facilities Operations Branch
Phone Number: 916-979-2361

The Training-Development Plan and Rotation Schedule for rotation engineer Jose Santana are provided below. The Rotation Schedule has been coordinated with the various offices:

PROGRAM OBJECTIVES:

Organizational Objectives: To establish learning opportunities for a newly hired mechanical engineer to become familiar with the operation and maintenance practices of powerplant facilities. The engineer will “shadow” experienced engineers with enough one-on-one time to allow the engineer to gain an understanding of the agency’s mission and to contribute to the accomplishment of that mission. Attend specific training assignments to receive information about the power hydropower industry policies and practices.

Personal Objectives: To become familiar with the operations and practices of the Bureau of Reclamation. To assist other engineers in their activities while gaining experience, training and knowledge to be able to independently complete engineering assignments. To “jump-start” the new engineer’s networking through training classes and assignments away from the Home Base. It is anticipated the engineer will spend half of the program at or near the Home Base and half away from the Home Base.

Because this plan is looking forward eighteen months, an assignment or assignments may need to be rescheduled. If an opportunity comes along that would benefit a new mechanical engineer, an assignment or assignments maybe cut short or postponed to accommodate the opportunity. Additionally, there are some assignments still to be scheduled. All are out in the field and away from Home Base. These assignments will be finalized after the first 6 months of the rotation schedule. This plan is intended to be flexible to give the rotation engineer as much of a “jump-start” as is possible.

TRAINING-DEVELOPMENT PLAN AND ROTATION SCHEDULE:

Note: * denotes a training tdy that is scheduled within the previous rotational detail.

Facilities Operations Branch, CVO-610, Central Valley Operations Office, Mid-Pacific Region

June 18 to August 24, 2012

Jonathan Rogado – 979-0261

In support of the mission of the Central Valley Operations Office and the Power Operations Division, the Facilities Operations Branch (CVO-610) is an interdisciplinary staff that engages in design, repair, maintenance, and safety of the Mid-Pacific Region’s hydroelectric power facilities. CVO-610 ensures compliance of the power systems with regulatory agencies and recommends improvements to increasing operational efficiencies, reliability, and availability. The staff provides the technical engineering support to the regional office, the area offices, and agencies that operate and maintain Reclamation facilities. In addition, the staff and supervisor works closely with management officials at area offices, regional office, Technical Service Center, Power Resources Office, Western Area Power Administration (WAPA), Department of Water Resources (DWR), and the multiple agencies that operate and maintain Reclamation facilities.

Under the direction of the Career Advisor, become familiar with the Bureau of Reclamation, the MP-Region, and the Central Valley Operations Office. Additionally, gain “hands on” knowledge of mechanical engineering practices in power plants. During this assignment, the rotation engineer will be providing trending analysis of operating conditions such as bearing temperatures, turbine efficiencies, etc.

Training Course: Extract Word Reviews to Excel Application

July 12, 2012 – Complete.

Speaker: Jim Cornwell

MP 700 has developed the “Extract Word Reviews to Excel” application. It will extract all comments and track changes in a word document and list them in new Excel workbooks. The Excel format is often required when commenting or reviewing planning reports and NEPA documents. With this application, you can make your “comments” or “track changes” directly in Word, and the application will create the required Excel file for you.

Hydraulic Equipment Group, D-8420, Denver, CO

Aug 27-Oct 12, 2012

Dan Drake, 303-445-2874

The Hydraulic Equipment group provides mechanical engineering services for primary water delivery equipment including: pumps, hydroelectric turbines, pump-turbines, turbine governors, numerous gates, butterfly valves, steel penstocks, manifolds, and various tanks.

Hydraulic engineering services include budgetary estimating, design, and specifications, a well as factory inspections and equipment installation supervision. The Hydraulic Equipment group also performs engineering analysis related to hydraulic transients in power system waterways and general stress analysis of large gates and turbine/pump equipment.

The objective of this rotational assignment is to receive training and direction with regard to mechanical engineering functions, which are unique to the job duties of the Hydraulic Equipment Group.

Corrosion and Protective Coatings Hands-On Training

Oct 30-Nov 1, 2012

Course recommended to rotational engineer by TSC – approved by Supervisor. The Materials Engineering and Research Laboratory will be presenting Corrosion and Protective Coatings Hands-On Training. This 3-day course will familiarize participants with the issues relating to corrosion of metal and corrosion protection. Discussions will include: how corrosion occurs and methods to minimize and prevent corrosion to our infrastructure, protective coatings, cathodic protection, new technologies, and inspection and repair techniques relating to maintenance and repair of infrastructure. The course will also discuss methods to control zebra and quagga mussels, with emphasis on the antifouling coatings control method. The class will provide hands-on experience to participants who will prepare steel panels, apply coatings, perform both destructive and nondestructive testing, inspect coatings and corrosion, and test cathodic protection systems. This course is intended for engineers, technicians, specification writers, technical project managers, and other staff associated with construction and repair of water resources structures.

Concrete Repair School

Nov 14, 2012

Course recommended to rotational engineer by TSC – approved by Supervisor. Participants attending the school will learn concrete construction methods to include quality evaluation of concrete aggregates, concrete materials testing, new construction practices, techniques for repairing existing concrete structures, causes of concrete damage, and methods to identify causes of damage. Participants will gain familiarity with materials used, such as chemical and mineral admixtures and standard and non-standard repair materials.

Hydroelectric Research and Technical Services Branch, D-8450, Denver, CO

Oct 15-Nov 30, 2012

Dave Hulse, Roger Cline, 303-445-2300

The Hydroelectric Research and Technical Services group provides a centralized location for Bureau of Reclamation with technical expertise in diagnostics, troubleshooting, O&M, hydroelectric powerplant control, automation, and incident investigations pertaining to hydroelectric power facilities.

The objective of this rotational assignment is to receive training and direction with regard to power engineering functions, which are unique to the job duties of the Hydroelectric Research and Technical Services group. The assignment will focus on the mechanical engineering function with a cursory review of mechanical engineering support.

Power Resources Office, 86-61600, Denver, CO

Dec 3 -7, 2012

Max Spiker, 303-445-2936

The Power Resources Office group provides a centralized location for Bureau of Reclamation with technical expertise in diagnostics, troubleshooting, O&M, hydroelectric powerplant control, automation, and incident investigations pertaining to hydroelectric power facilities.

The objective of this rotational assignment is to receive training and direction with regard to power engineering functions, which are unique to the job duties of the Hydroelectric Research and Technical Services group. The assignment will focus on the electrical engineering function with a cursory review of mechanical engineering support.

Facilities Operations Branch, CVO-610, Central Valley Operations Office, Mid-Pacific Region

Dec 10, 2012 – Jan 12, 2013

Jonathan Rogado – 979-0261

Continuation of base office assignments.

Mechanical Engineering, Northern California Area Office, Shasta, CA

Jan 14-April 19, 2013 (Extended to June 14, 2013)

Joe Ascoli 530-229-5224

The Northern California Area Office is responsible for the operation and maintenance of dams, powerplants, and related facilities of the Shasta, Trinity, and Sacramento River Divisions of the Central Valley Project. Within the purview of the Northern California Area Office are the Coleman Fish Hatchery and the Livingston Stone Fish Hatchery, operated by the U.S. Fish and Wildlife Service; the Trinity River Fish Hatchery operated by the California Department of Fish and Game; the East Park and Stony Gorge Dams, operated by the Orland Water Users Association; the Corning and Tehama-Colusa Canals; and the Red Bluff Research Pumping Facility. The Office administers Reclamation lands, water conservation programs, and water service, and repayment contracts extending from north of Sacramento to just south of the Oregon border. The Northern California Area Office is also responsible for environmental protection and restoration programs in the Trinity and Sacramento River Basins.

There are excellent learning opportunities for the rotational engineer during this detail. Generator rewinds at both Judge Francis Carr and Spring Creek powerplants are still underway. There is considerable mechanical workload at NCAO that could benefit this rotational engineer.

Engineering Branch, MP-210, Regional Office, Mid-Pacific Region

June 17-Sep 6, 2013

Allen Lindauer, 916-978-5349

The Division of Design Engineering is responsible for providing Regional design work that includes developing design specifications and drawings. The objective of this rotational assignment is to receive

training and direction with regard to mechanical engineering functions, which are unique to the job duties of the Engineering Branch.

Construction Office, MPC-100, Willows, CA

(TBD - postponed)

(preferred poc: Stephen Holmes)

The MP-Region Construction Office directs pre-construction, on-site construction management, and construction contract administration throughout California, Nevada and Southern Oregon. The office handles new construction, rehabilitation of existing facilities, extraordinary maintenance, concrete structures and buildings, safety of dam modifications, hazardous waste clean up and closure. The jobs pertain to canals, pipelines, earthen dams, pumping facilities, storage dams and reservoirs, fish facilities, wildlife mitigation and enhancement, environmental restoration, including fish screening facilities, temperature control devices, and power generating facilities. The office also works with small potable water plants and recreation facilities.

The objective of this rotational assignment is to be exposed to the inspection of power-related construction projects.

Tracy Office, CA

Postponed due to limitations placed on travel.

Ron Silva – 209-836-6252

The Tracy Office operates and maintains the Tracy Fish Facility, the Delta Cross Channel Gates, and provides contractual oversight of the operations and maintenance of Jones Pumping Plant and O’Neill Pump-Generating Plant. The O&M of these last two facilities is provided by the San Luis Delta Mendota Water Authority. This detail would be designed to provide the rotational engineer with assignments that develop an awareness and knowledge in regards to the operations and maintenance of these facilities.

Mechanical Engineering, Central California Area Office, Folsom, CA

July 22 - October 25, 2013 (dates flexible – target 4th quarter FY13)

TBD 916-989-7156

The Central California Area Office manages water and land resources in 12 counties, including facilities of the Central Valley Project - American River and East Side Divisions, and facilities of the Solano Project. The Central California Area Office also manages the recreation areas at Lake Berryessa and New Melones reservoir, has a long-term lease with the California Department of

Parks and Recreation for Folsom Lake and Lake Natoma recreation management, and an agreement with the California Division of Forestry to manage the lands associated with the Auburn Unit.

Mechanical Engineering, Lahontan Basin, Carson City, NV

October 28 - November 29, 2013 (dates flexible – target 1st quarter FY14)

Locke Hahne, 775-884-8348

The Lahontan Basin Area Office provides management and oversight in the three river basins which make up the Lahontan Basin Area. The area managed includes the Carson, Truckee, and Humboldt River basins. There are four operating Reclamation projects in the area: the Humboldt Project, the Newlands Project, the Truckee Storage Project, and the Washoe Project.

The major issues confronting the Lahontan Basin Area Office are primarily related to water rights on the Truckee River and the operation of the Newlands Project. The water right issues are complicated by the endangered cui-ui and the threatened Lahontan cutthroat trout in Pyramid Lake; the trust responsibility to both the Pyramid Lake Paiute Tribe and the Fallon Paiute-Shoshone Indian Tribe; and, our obligation to provide water for the Lahontan Valley wetlands and Newlands Project irrigators.

Facilities Operations Branch, CVO-610, Central Valley Operations Office, Mid-Pacific Region

December 2 - 27 , 2013

Jonathan Rogado – 979-0261

Continuation of base office assignments.

Some opportunities for training will temporarily interrupt rotational assignment as indicated elsewhere in this training plan.

American Governor Class, Stevens Point, WI

TBD

American Governor Company offers a full range of on-site training classes. Classes include classroom and hands-on sessions and are specially designed to cover the particular equipment at your site. Each attendee receives a training manual.

Agenda can be customized to suit your preferences. Common training topics include:

- Governor Theory
- Droop and Load Sharing
- Mechanical Components and their Operation
- Electrical Components and their Operation

- Regular Maintenance Activities
- Governor Adjustments / Pumping System Adjustments
- Governor and Pump Troubleshooting
- Human Machine Interface Programming and Development
- Hands-on Overhaul, Calibration and/or Troubleshooting Sessions*

Classes vary from 2 to 5 days depending upon desired content. Class size is limited only by practical concerns such as conference room space and the effectiveness of hands-on activities.

Additional training courses TBD

NTT pumps
NTT Hydraulics
ESI Project Management