

CALIFORNIA INDUSTRIAL GENERAL PERMIT QUALIFIED INDUSTRIAL STORMWATER PRACTITIONER (QISP) TRAINING PROGRAM OVERVIEW

IGP WORKSHOPS 2015



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TOPICS

- **When is a QISP needed?**
- **QISP Prerequisites/Qualifications**
- **Training Program Development**
- **Timeline**
- **Planning Ahead**
- **Question and Answers**

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WHEN IS A QISP NEEDED?

- Dischargers shall appoint QISP – internal or external for:
 - Level 1 status reporting
 - Level 2 status reporting and Action Plan
 - New Dischargers with 303(d) impaired receiving waters



QISP TRAINING PREREQUISITES

- **No established prerequisites**
- **Training is not intended to cover entire IGP**
- **Trainees should have a good understanding of the IGP and Clean Water Act (CWA)**
- **Goal of trainee should be to learn more on how to implement new IGP requirements**

PROFESSIONAL ENGINEERS & GEOLOGISTS

- **California licensed professional civil, industrial, chemical, and mechanical engineers and geologists (CPBELSG)**
 - **Parallel and streamlined training process**
 - **No testing for becoming a QISP**
- **Professional Engineers required for:**
 - **Inactive Mining SWPPPs, NONA Technical Reports, and Subchapter N calculations**

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INDUSTRIAL GENERAL PERMIT TRAINING TEAM (IGPTT)

- **Sept 2012 – May 2013 SWRCB selected IGPTT Members through application process**
- **15 IGPTT Members**
- **10 – 15 Sub-Committee Seats**
- **1-2 year commitment; 10 – 40 hours/month**
- **Regular meeting attendance**
- **August 1, 2013 – IGPTT Kickoff**

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IGPTT MEMBERS

| | |
|-------------------|-----------------------------------|
| Arthur Deicke | Environmental Pollution Solutions |
| Brian Currier | OWP-CSUS |
| Calvin Noling | StormwaterRx LLC |
| Daniel Apt | RBF Consulting / CASQA |
| Geoff Brosseau | CASQA |
| Joan Greenwood | CSC Targhee, Inc |
| John Teravskis | WGR Southwest Inc |
| Kathleen Harrison | Geosyntec Consultants |
| Kelly Doyle | Rick Engineering Company |
| Larry Sweetser | Rural Counties ESJPA |
| Laurel Warddrip | State Water Board |
| Matt Lentz | GSI Environmental Inc/CASQA |
| Matthew Hoesch | OWP-CSUS |
| Matthew Zucca | Erler & Kalinowski, Inc |
| Michele Kinaan | ETIC Engineering Inc |
| Rich Muhl | RWQCB- 5 Sacramento |
| Tim Simpson | GSI Environmental Inc |

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QISP TRAINING PROGRAM

- **QISP Training Program (non-CPBELSG)**
 - **Estimated 16 hours on-line, with quizzes**
 - **Online exam**
 - **1 day classroom taught by Trainer of Record (TOR)**
 - **No test at completion of classroom**
 - **Fee for Training**
 - **QISP ID Number Issued**
 - **Recertification will likely be required**

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QISP TRAINING PROGRAM

- Includes photos, videos, outside resource links, quizzes
- Example “Site Scenarios” for practical application
- Completed at QISP candidate’s own pace, but within 2 years of registering

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CLASSROOM TRAINING

- Review of on-line training material
- Provide opportunity for Q&A /discussion
- Demonstrations
- Case Studies

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QISP EXAMINATION

- **Examination will address content covered during training via:**
 - **General questions regarding IGP**
 - **Questions using Site Scenarios to test practical understanding**
- **Examination will also test broader IGP and CWA knowledge**

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QISP TRAINING TIMELINE

- **February 27, 2014 - Feedback Forum**
- **March 2015 – Trainer of Record (TOR)/CGLs RFQ**
- **June 17-18, 2015 – TOR/CGLs Training**
- **July 2015 - TORs/CGLs available**
- **Fall 2015 - Training Rollout**
- **Winter 2015 - QISP Enrollment**

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PLANNING AHEAD IS KEY!

- Review SWPPP and historical analytical results
- Evaluate areas for improvement
- Perform Level 1 ERA
- Implement improvements now to avoid ERA process
 - Avoid exposure
 - Avoid discharge
 - Implement minimum BMPs
 - Review sampling techniques and modify, if needed
 - Evaluate/Eliminate pollutant sources (run on, aerial deposition)

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PLANNING AHEAD

- Get comfortable with electronic reporting
- Identify your team players
- Train facility staff
- Seek help!
 - Resources are available to help, not just penalize!

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CONTACT THE BUREAU

Storm Water Program

Program Information

PROGRAMS, DATABASE & FEES

- Caltrans: [Hot News!](#) | [Caltrans Program Page](#)
- Construction: [Hot News!](#) | [Construction Program Page](#)
- Industrial: [Hot News!](#) | [Industrial Program Page](#)
- Municipal: [Hot News!](#) | [Municipal Program Page](#)
- [SMARTS Database](#)
- [Stormwater Fees](#)



STORM WATER FILMS

- [Storm Water Films Page](#)

CONTACT INFORMATION

- General Inquiries: stormwater@waterboards.ca.gov
- Telephone Toll Free - 1-866-563-3107
- Fax - (916) 341-5543

CONNECT WITH US

- Agendas English/Espanol
- Water Quality
- Performance Report

STORM WATER

- Stormwater Home
- Caltrans
- Construction
- **Contacts**
- Database
- Industrial

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- ▶ DRINKING WATER
- ▶ ENFORCEMENT
- ▶ FINANCIAL ASSISTANCE (GRANTS & LOANS)
- ▶ LEGAL NOTICES - Office Of Chief Counsel
- ▶ **WATER QUALITY**
- ▶ WATER RIGHTS


- Storm Water Database Issues
- Storm Water Industrial Permitting Issues**
- Storm Water Municipal Permitting Issues

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Your Full Name: (required) (e.g. John Smith)



STRATEGIC PLANNING - INDUSTRIAL GENERAL PERMIT

FEBRUARY 26, 2015



Matthew Q. Lentz, BCES, CPSWQ, CPESC
GSI Environmental
949-254-3063

TIMELINE...

- **Now through June 2015** – Assess Applicability/Update Program – Don't Wait!
 - NOI or NEC coverage
 - NONA criteria?
- **July 1, 2015** - Permit is EFFECTIVE
 - Comply...



TO DO BEFORE JULY 1, 2015

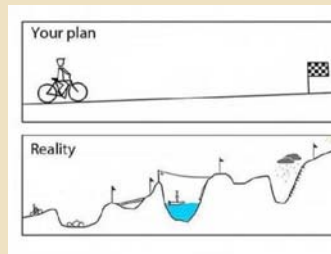
NOI COVERAGE

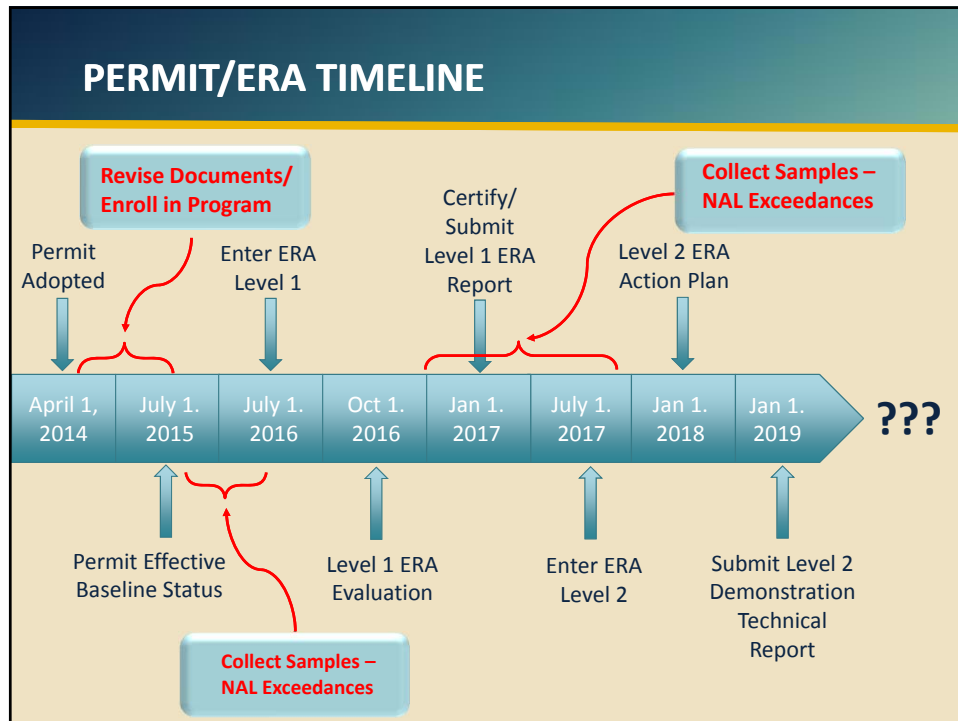
- **Update/Implement SWPPP (not a trivial effort...)**
 - Incorporate minimum BMPs (more details!)
 - Include additional facility specific and advanced BMPs
 - Assessment and description of pollutant sources
 - Update site map
 - Prepare Monitoring Implementation Plan
- Register in SMARTS/Upload PRDs
- Train Employees
- Hit the Ground Running on July 1!



PLAN AHEAD

- Review Historic Analytical Results
- Areas for improvement?
- Perform a “Level 1 ERA Evaluation?”
- Improve now, avoid the ERA process
 - Understand ERA Process...
- Type of improvements?
 - Avoid Exposure
 - Avoid Discharge
 - Minimum BMPs
 - Sampling techniques/methodology
 - Type (run-on, aerial deposition, non-industrial areas)
- Incorporate Improvements into SWPPP and IMPLEMENT





- ### PLANNING AHEAD – IMPORTANT QUESTIONS
- **Is there a way out of full Permit coverage?**
 - NEC
 - NONA
 - **Am I going to have problems meeting NALS?**
 - What does your data tell you?
 - Additional parameters to consider?
 - **What are my sources?**
 - Under your control or not?
 - **What are my options and what do they cost? (BMP implementation)**
 - Short and long term strategies
 - **What else should I be concerned about?**
 - TMDLs...
 - Drought?

MINIMIZE/AVOID DISCHARGE

- **Minimize or Eliminate Discharge**
 - Infiltration
 - Sanitary sewer
 - Re-use
- **Evaluate Feasibility/ Costs Now**
- **Notice of Non-Applicability (NONA) Criteria?**

NOTICE OF NON-APPLICABILITY (NONA)

- **When is this Required?**
- **Site must meet the following:**
 - Engineered and constructed to have contained the maximum historic precipitation event (or series of events) using precipitation data collected from NOAA's website
 - Basin or other physical location that is not hydrologically connected to water of the US
- **Submit NONA and NONA Technical Report**
 - Prepared by CA licensed PE



MINIMIZE EXPOSURE

- Can you cover your industrial activities?
- Can you isolate/cover/contain “high risk” areas?

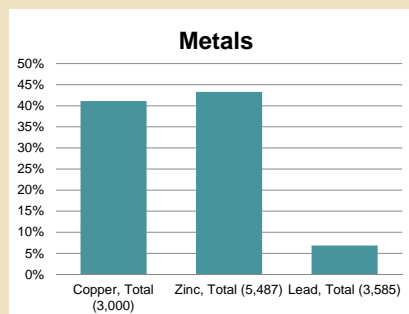
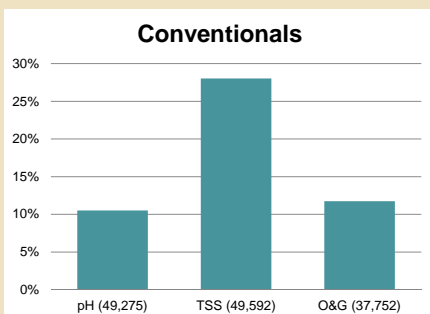
NALS – WHAT DOES YOUR DATA TELL YOU?

| Date | Outfall | TSS | pH | O&G | Al | Cu | Fe | Zn | COD |
|---------|-----------|-----|------|------|------|-------|-------|------|------|
| 10/6/13 | 1 | 90 | 7.02 | 9.8 | .800 | .210 | 1.86 | .663 | 200 |
| | 2 | 80 | 7.33 | <1.0 | .643 | .065 | .740 | .250 | 90 |
| | 3 | 410 | 6.40 | 3.2 | .210 | | | | |
| 11/1/13 | 1 | 65 | 8.21 | 8.0 | 1.20 | | | | |
| | 2 | 75 | 6.65 | 3.0 | .360 | | | | |
| | 3 | 20 | 6.85 | <1.0 | .060 | | | | |
| 1/20/14 | 1 | 80 | 7.10 | 2.0 | .900 | | | | |
| | 2 | 70 | 6.89 | <1.0 | .420 | | | | |
| | 3 | 60 | 5.90 | 1.0 | .050 | | | | |
| 3/2/14 | 1 | 95 | 7.97 | 5 | 1.10 | .032 | 1.10 | .332 | 90 |
| | 2 | 90 | 7.00 | 2 | .850 | .022 | .750 | .280 | 75 |
| | 3 | 80 | 6.12 | 1 | .250 | .008 | .100 | .010 | 40 |
| | AVG | 101 | NA | 2.91 | .570 | .068 | 0.694 | .305 | 84.5 |
| | NAL Value | 100 | 6-9 | 15 | 0.75 | .0332 | 1.0 | .26 | 120 |

| Parameter | Unit | Annual NAL | Instantaneous NAL |
|-----------|----------|------------|-----------------------------------|
| pH | pH units | NA | Less than 6.0 Greater than 9.0 |
| TSS | mg/L | 100 | 400 |
| O&G | mg/L | 15 | 25 |
| Zinc | mg/L | 0.26 | NA |
| Copper | mg/L | .0332 | NA |
| Lead | mg/L | 0.262 | NA |

YOU ARE NOT ALONE...

| Parameter | Unit | Annual NAL | Instantaneous NAL |
|-----------|----------|------------|-----------------------------------|
| pH | pH units | NA | Less than 6.0 Greater than 9.0 |
| TSS | mg/L | 100 | 400 |
| O&G | mg/L | 15 | 25 |
| Zinc | mg/L | 0.26 | NA |
| Copper | mg/L | .0332 | NA |
| Lead | mg/L | 0.262 | NA |



WHAT IS CAUSING THE NAL EXCEEDANCE?

- **Industrial Activities**
- **Non-Industrial Sources**
 - Run-on, aerial deposition, on-site non-industrial
- **Natural Background Sources**
- **Not Sure?**
 - What type of information/ data do I need?

EXAMPLES

- **Is Aerial Deposition Contributing Cu and Zn?**
 - Must show NAL Exceedance solely attributable (relative concentrations)
 - Quantify via sampling (wet vs. dry deposition)
 - Regional studies
 - Easier said than done....
- **Is Run-on from neighboring property contributing TSS?**
 - Characterize run-on
- **Are Iron and Aluminum elevated from natural soil conditions?**
 - Regional soil surveys
 - Site-specific samples

HOW DO I ADDRESS THE SOURCE?

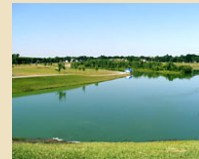
- **Understand what are others in your industry doing?**
 - Is your industry association active?
 - Monitoring/Compliance Groups might be a good option
 - What is BAT/BCT for your industry?
- **Minimum BMPs implemented?**
- **What advanced BMPs are feasible?**
 - Cover
 - Contain
 - Treat

TREATMENT SYSTEMS AT INDUSTRIAL SITES: WHAT IS KNOWN ABOUT PERFORMANCE?

- Because relatively few industrial dischargers have implemented treatment – not much is currently known about performance
- What works for MS4 code compliance may not be sufficient for industrial dischargers
- Industrial sites are not well represented in the International Stormwater BMP Database
- Treatment Systems are Evolving
 - Some treatment vendors are now incorporating polymers/flocculants with promising results
 - Several systems have been installed, but limited results are available (getting better)
 - Orange County Coastkeeper/RWQCB Region 8 Study

POSSIBLE LID APPROACHES FOR INDUSTRIAL SITES

- Alternatives to reduce volume of discharges
 - Seepage pits
 - Infiltration galleries
 - Bio-swales
 - Directing flow to “back 40” to avoid discharge
 - Infiltration wells
- Possible storm water harvesting/reuse options
 - Cooling water
 - Dust/emissions control
 - Cost/benefit should consider permit compliance, not just cost of reduced water purchase



POSITIVES

- **Reduced Impact to Downstream Receiving Water**
 - Volume Reduction
 - WLAs
- **Recharge of Local Groundwater Aquifer**
 - Variety of Ancillary Benefits
- **Potential Greenhouse Gas Emission Reductions**
 - Reduced Need for Import of Water
 - Reduction in Energy Needs
- **Difficult to quantify cost vs. benefit**
 - Particularly for re-use/re-charge
- **Permit Compliance**



CONCERNS WITH LID AT INDUSTRIAL SITES

- **In most cases, LID approaches rely on infiltration**
- **Not all sites are candidates for infiltration**
 - Minimum distance from groundwater
 - Proximity to nearest water supply well
 - Geotechnical concerns/soil conditions
 - Existing soil/groundwater impacts
- **Some MS4s limit infiltration at industrial sites**
- **Some level of pretreatment warranted...**
- **Concerns about long term impacts to soil and groundwater**
 - Are you trading one headache for another?

COMPLIANCE STRATEGIES

- **Start Planning NOW!!!**
 - Historical Data
 - Sampling Strategies (methods/locations)
 - Are results representative?
 - Short and Long Term strategy
 - Demonstration Technical Reports
- **Eliminate Exposure/Discharge?**
 - Cover/contain operations
 - Infiltration, sewer, re-use
- **What are Others in your Industry Doing**
 - Affects BATEA/BCT
 - Compliance Groups
 - Don't be the "Low Hanging" fruit



Questions?

Thank You!