



REQUEST FOR PROPOSALS FOR:
**MS4 PERMIT INSPECTIONS AND
NPDES SUPPORT SERVICES, RFP #2024-RFP-133**

Submitted To:
City of Palm Desert
Melanie Perry
Senior Management Analyst
73510 Fred Waring Drive
Palm Desert, CA 92260-2578

Submitted By:
Casc Engineering and Consulting, Inc.
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Palm Desert, CA 92211
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Submittal Date:
September 5, 2024



CASC
Engineering and Consulting
www.cascinc.com

September 5, 2024

A. COVER LETTER

City of Palm Desert
Attn: Melanie Perry, Senior Management Analyst
73510 Fred Waring Drive,
Palm Desert, CA 92260

Subject: Request for Proposals – City of Palm Desert, MS4 Permit Inspections and NPDES Support Services, RFP #2024-RFP-133

Ms. Perry,

Casc Engineering and Consulting (Casc) is pleased to present our qualifications and are excited to have the opportunity to continue to provide our services to the City of Palm Desert (City). This proposal package demonstrates how the City can benefit from not only our extensive and relevant NPDES regulatory experience and municipal program knowledge but also from our extensive stormwater experience in Palm Desert and the Coachella Valley.

Brief History

Casc was established in 1993 and has been providing professional consulting services to government and institutional clients for nearly 30 years. Casc is regarded as one of the leading NPDES consulting firms in the Whitewater River Watershed and in Southern California.

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We bring to the City of Palm Desert extensive experience in all aspects of the Whitewater River (WWR) Watershed MS4 permit. We have been supporting numerous stormwater programs in Riverside County and the Coachella Valley for over 15 years, including programs for the cities of Palm Desert, Palm Springs, Cathedral City, and La Quinta, as well as for Riverside County Flood Control, Riverside County Department of Transportation, and Riverside County Economic Development Agency.

Why continue with Casc as the City's NPDES Program Consultant?

Casc has dealt with the ever-changing NPDES Permit regulations for over 20 years and has kept our finger on the pulse of the state and regional regulatory agencies to anticipate potential new requirements for the City. At Casc, we pride ourselves in our ability to limit project challenges by forward-thinking and planning, as well as our ability to resolve project issues by following established protocols in a professional and cooperative manner.

Ultimately, the success of any project comes down to the people involved, and Casc is proposing a technically seasoned team committed to continuing to serve the City. Highlights of the exceptional qualifications of the Casc team include:

- **Experience with Whitewater River** – The Project Manager, Assistant Project Manager, and the entire Casc team are known for their exceptional knowledge of the Whitewater River NPDES Permit. We have experience gained through conducting a wide range of similar activities for the cities of Palm Desert, Palm Springs, Cathedral City, La Quinta, Rancho Mirage, Palm Desert, and the County of Riverside Transportation Department.

- **Experience with Inspections** – The proposed team has exceptional knowledge of all stormwater inspections as they relate to the MS4 Permit, Industrial inspections, Construction General Permit inspections, Post Construction BMP Inspections, and FOG inspections. This expertise has been gained through conducting hundreds of similar inspections for agencies such as the cities of Palm Desert, Palm Springs, Cathedral City, La Quinta, Temecula, Hemet, Norco, Ontario, El Monte, and Irwindale.
- **Experience with NPDES Training** – Casc has taught MS4 NPDES staff since 2004 through the Riverside County Flood Control District and the Whitewater River Stormwater Program.
- **Experience with Stormwater Regulations** – Casc has broad-scale knowledge of NPDES regulatory compliance issues through our work with government agencies, school districts, and private companies throughout the state. We have provided NPDES program support to programs both large and small. Our work includes over \$17 million in NPDES water quality monitoring services to the State of California, Department of Transportation, and over \$16 million in NPDES consulting services to Southern California Edison.
- **Stormwater Certifications**—All primary team members hold at least one of the following credentials: PE, CPSWQ, CPMSM, CPESC, CESSWI, CESSWI-IT, QSD, QSP, or QISP.
- **Unmanned Aircraft Systems (UAS)** – Casc utilizes UAS to provide aerial observations to assist with visual inspections for large areas and outfall screening. The UAS is piloted by an individual (Pilot) holding a valid Remote Pilot Airman Certificate issued by the Federal Aviation Administration (FAA) in accordance with Title 14 of the Code of Federal Regulation (14 CFR) Part 107.

Authorization to Negotiate:

Casc’s proposed Technical Director, Melanie Sotelo, is authorized to negotiate Agreement terms and compensation related to the City of Palm Desert’s MS4 Inspection Services Proposal. Ms. Sotelo’s contact information is:

Casc Engineering
77564 Country Club Drive, Suite 211
Palm Desert, CA 92211
Office: 760.259.0108 Ext. 1600

Casc looks forward to your review of this proposal and stands ready to answer any questions you may have.

Sincerely,

CASC ENGINEERING AND CONSULTING, INC.



Melanie Sotelo, CPMSM, CPSWQ, QISP, QSD
Associate Director of Environmental Services
760.259.0108 ext 1600
msotelo@cascinc.com

CASC ENGINEERING AND CONSULTING, INC.



Rick Sidor, PE, QSD, CPESC
President/Owner (*Authorized to bind the firm*)
909.835.7145
rsidor@cascinc.com

B. EXPERIENCE AND TECHNICAL COMPETENCE—BACKGROUND

COMPANY OVERVIEW

Casc Engineering and Consulting, Inc. (Casc), a California S corporation (SBE), was established in 1993 to provide professional civil and environmental engineering, surveying, and related consulting services to government agencies, utility companies, school districts, private developers, and industry groups. Operating from five Southern California offices (Palm Desert, Colton, Temecula, Irvine, and Glendora), our office located in Palm Desert will serve as the primary office for services to the City of Palm Desert. Having a local office within the City allows Casc to provide efficient support services, while eliminating the logistical challenges facing other out-of-area consultants.



LEADERSHIP IN THE WATER QUALITY FIELD

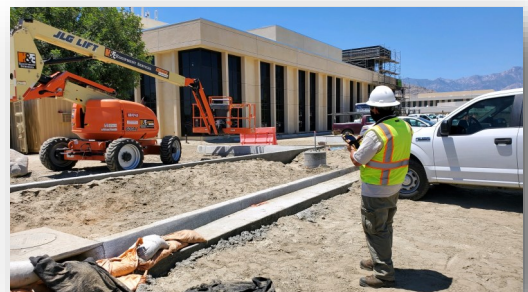
Casc is a leader in the storm water profession. Our staff continues to serve in prominent positions for leading storm water professional organizations: Rick Sidor has co-chaired CASQA’s Construction and Phase II subcommittees; Melanie Sotelo is the past Co-Chair of the CASQA Construction subcommittee, and is currently the Administration Vice President of the IECA Western Chapter Board. Our staff have been directly involved in developing standard-setting guidance for storm water BMPs including CASQA’s *Storm Water Best Management Practice Handbooks*, the first edition of Caltrans’ *Storm Water Quality Handbooks*, and BASMAA’s, *Using Site Design Techniques to Meet Development Standards for Storm Water Quality – A Companion to Start at the Source*. In 2017, Casc led the development of three standard-setting reports for CASQA including LID Technical Standards Review, Bioretention and Standards Review, LID Technical Standards Review-Permeable Pavement Details and Standards Review; and LID Technical Standards, Review-Future efforts related to LID.

CASC is not just a company of consultants. The firm and many of its staff are leaders in the storm water management industry.

Jeffrey Endicott, a Vice President at Casc and proposed Engineering Director for this project, was awarded the prestigious Leadership Award by the California Stormwater Quality Association (CASQA) in 2019. The Leadership Award was awarded for his “outstanding leadership within CASQA and his exceptional contributions to the stormwater quality management profession over a significant time period.”

COMPETENCE OF THE TEAM

Casc’s Water Quality Division is comprised of engineers, scientists and technical support staff who have extensive experience in stormwater program development, implementation, and management. From conducting NPDES inspection services, to full stormwater program implementation support, Casc has a proven track record of serving Municipal MS4 programs of all sizes and complexities. All members of the proposed project team are currently providing storm water management inspection services to public and private entities, and thus have a proven track record of performance on projects similar to the work described in the RFP.



Casc has developed a reputation as a company that provides technically appropriate and credible advice to clients and we pride ourselves on being a resource to facilitate compliance. Our staff will use this same approach in the work we perform for the City of Palm Desert.

EXPERIENCE IN THE COACHELLA VALLEY

Casc’s experience with the Coachella Valley Co-Permittees includes providing stormwater training to municipal staff on the Whitewater River NPDES Permit requirements, providing the City of Palm Springs with full stormwater program management services, training Riverside County’s NPDES Coordinator, providing several desert cities with stormwater inspection support services, preparing Regional Board-Approved Final Jurisdictional Maps related to the Statewide Trash Amendment requirements, participating on the Co-Permittee Desert Task Force, and assisting with MS4 Permit renewal activities. Casc’s extensive involvement in the Coachella Valley, combined with our knowledge of NPDES requirements and experience conducting inspections in the desert environment, enables efficient and economical execution of our inspection services.

CASC has either in the past or is currently providing NPDES services to the following public agencies in the Coachella Valley region:

- Palm Springs
- Riverside County
- Cathedral City
- La Quinta
- Indio
- Rancho Mirage



SCOPE OF WORK

Casc’s proposed team members are able to perform all activities related to the work described and services requested in Attachment A of the RFP, Proposed Scope of Services.



RELATED EXPERIENCE

Since 2003, Casc has been providing food service, hazardous material facility, and commercial/industrial inspections to cities throughout Southern California to meet the varied requirements of the MS4 NPDES permits in the counties of Riverside, San Diego, Orange, Los Angeles, and San Bernardino. Responsibilities have included tracking and inspecting hundreds of commercial/industrial facilities per agency, troubleshooting grease control devices and other BMP failures, facility prioritization, database research, educational material development and distribution, and GIS/photomapping of illicit connection/illegal discharge locations. Depending on jurisdictional requirements, non-compliance was followed up with enforcement actions in accordance with the agency’s stormwater ordinance, including assisting the city in writing Notices of Non-Compliance and referrals to the Regional Water Quality Control Board as required for

compliance with the Industrial General Permit , SWMP, and SB205.

B. EXPERIENCE AND TECHNICAL COMPETENCE

RELEVANT PROJECT PROFILES AND CLIENT REFERENCES

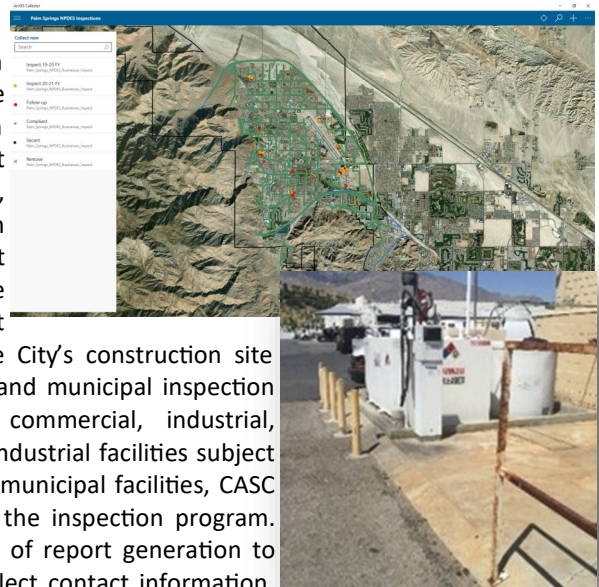
MS4 PERMIT INSPECTIONS AND NPDES SUPPORT SERVICES **PALM DESERT, CA**

Since 2021, Casc has provided Palm Desert NPDES inspection services, including for restaurant, commercial, industrial facility and low-priority construction site inspections in accordance with the Whitewater River Region MS4 Permit requirements. Inspections are scheduled by Casc and completed in compliance with Permit-required frequency. Casc compiled a priority list for each inspection type by pulling current WDID information from the SMARTS database for both construction projects and industrial facilities, and coordinating with the City for applicable current and new business licenses. Inspectors visit the selected sites, record their observations, and recommend additional best management practices to minimize pollutant discharges to the drainage system. Casc would update and maintain the City's current commercial/industrial database to reflect completed inspections and identify facilities that need follow up. Casc also assisted the City by coordinating with code enforcement for Illicit Connection/Illegal Discharge investigations to verify proper escalation of enforcement efforts.

Furthermore, Casc provided support for the City to prepare for and participate in an audit of Palm Desert's MS4 Program when inspected by the Regional Board in Spring 2023. Prior to the audit with the Regional Board, Casc joined Riverside County Watershed Staff Pre-Audit preparation meetings with the City to assist the City in navigating the audit process and understanding of their internal operations. During the audit, Casc kept the process on track by providing valuable insights on what is and is not required by the current permit, and identifying any overreaching expectations by the Regional Board. Casc's contributions were instrumental in facilitating focus on the City's process and how their program successfully meets the audit objectives.

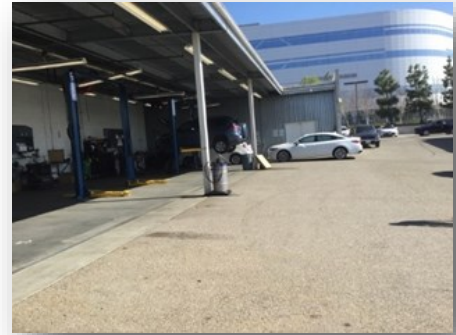
STORMWATER PROGRAM MANAGEMENT **CITY OF PALM SPRINGS, CA**

Casc is the City of Palm Springs' Consultant Storm Water Program Manager, responsible for management and implementation of the City's storm water program. Services include providing guidance on LID implementation on new development and redevelopment projects, NPDES municipal training, private construction inspections, IC/ID investigation and reporting documentation, coordination with Desert Task Force Meeting attendance, Trash Amendment compliance activities, MS4 annual reporting, and Report of Waste Discharge efforts related to the Whitewater River MS4 Permit renewal. Additional responsibilities include implementation of the City's construction site program, the commercial/ industrial facilities inspection program, and municipal inspection program. Inspection services include providing construction, commercial, industrial, restaurant, and municipal inspections. With over 375 commercial/industrial facilities subject to the permit requirements, and many additional construction and municipal facilities, CASC developed a database using GIS to organize, prioritize, and track the inspection program. CASC uses ArcGIS Field Maps and Survey123 as their main source of report generation to allow inspectors to use tablets to document inspection results, collect contact information, attach photos, obtain the signature of the facility representative, and immediately email the completed inspection report to the Project Manager and site representative.



INSPECTION OF RESTAURANT, COMMERCIAL, AND INDUSTRIAL FACILITIES
CITY OF LA QUINTA, CA

Casc has been, and is currently, under contract with the City of La Quinta to perform the next round of storm water inspections for restaurant, commercial, and industrial facility. Casc performs water quality inspections of targeted facilities within the City at frequencies established by the MS4 Permit for the Whitewater River Watershed. Casc’s responsibilities include reviewing the facility list from the Riverside County Department of Health (DEH), prioritizing facilities to be inspected, preparing inspection schedules, and providing progress reports to the City. Additionally, Casc works with Code Enforcement, identifying sites that require re-inspection by Code officers.



INSPECTION OF RESTAURANT, COMMERCIAL, AND INDUSTRIAL FACILITIES
CATHEDRAL CITY, CA

Casc has provided Cathedral City with NPDES restaurant, commercial, and industrial facility inspections in accordance with the Whitewater River Region MS4 Permit requirements and completed inspections in compliance with Permit-required frequency. Inspectors visited identified sites and documented the status of best management practices in place to minimize pollutant discharges to the drainage system. Casc worked with the City to update and maintain the City’s current commercial/industrial database to reflect completed inspections and identify facilities for re-inspection.

NPDES PROGRAM MANAGEMENT
RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT

Casc currently assists the County of Riverside’s Transportation Department with compliance activities related to the County’s three MS4 permits in the Santa Ana River, Whitewater River and Santa Margarita River watersheds. Activities include staff augmentation of an Interim NPDES Coordinator, assistance with annual report preparation, monitoring of outfalls, QSP inspections and sampling, TPG reviews for Transportation projects, WQMP reviews for land development projects, compliance assistance with Statewide Trash Provision requirements, and MS4 permit negotiations. Additionally, Casc prepared the County’s responses to the Regional Board’s 13383 letters, coordinated with the County for completion of GIS preliminary mapping, and is currently coordinating with the County for preparation of standard designs for connector pipe screen devices. Additionally, Casc has staff who are trained in on-land visual assessments and plans to assist the County in conducting assessments for proposed alternative land use areas.



INSPECTION PRIORITIZATION, COMMERCIAL/INDUSTRIAL INSPECTIONS
CITY OF EL MONTE, CA

Casc has provided the City of El Monte with NPDES compliance assistance in response to the last two permit renewals providing a variety of services including program development and policy reviews, field inspections, plan checking, training, GIS database development, and preparation of a Watershed Management Program and an Integrated Monitoring Program (IMP). Casc was responsible for implementing all requirements pertaining to the inspection of commercial/industrial facilities as described and mandated by the MS4 Permit. Duties included facility prioritization, database development and maintenance, research, scheduling, public information/educational material development and distribution, SWPPP review, as well as conducting over 500 commercial/industrial facility inspections.

MS4 NPDES INSPECTION PROGRAM
CITY OF HEMET, CA

Casc is assisting the City of Hemet with NPDES program implementation activities, including program management, facility evaluations, commercial-industrial inspections, and previously provided WQMP and drainage document reviews. Casc works with the City to provide assistance with MS4 Permit compliance, TMDL compliance, TMDL task force attendance, Public Education Subcommittee participation, and annual reporting documentation.



For the commercial/industrial inspections, Casc works closely with the City’s NPDES coordinator to identify commercial and industrial businesses within the City’s jurisdiction that meet inspection criteria per the Riverside County Phase I MS4 Permit Santa Ana Region, and Drainage Area Management Plan.

Inspectors visit each site and document the status of best management practices in place to minimize pollutant discharges to the drainage system. In order to bring Hemet’s Public Works’ tracking software to a state where digital inspections could be performed and then imported into that software, Casc assembled a team to develop a GIS-based interactive inspection program that is used by inspectors and City staff. The interactive program has been designed to be compatible with the City’s database system so that all inspection information is imported and reflected in the City software. Casc conducts webinar training programs tailored specifically for the City’s inspection program and provides field training for inspectors and City staff.

MS4 NPDES INSPECTION PROGRAM
CITY OF TEMECULA, CA

Casc provides industrial and commercial inspections for the City in accordance with their Municipal Separate Storm Sewer System (MS4) permit and their storm water ordinance. Inspections include observing best management practices at facilities used for protecting storm water runoff and verifying that facilities that require coverage under the Industrial General Permit have the required WDID and SWPPP on site.

For high-priority inspections, generally industrial and selected commercial facilities, the inspector uses EnerGov software in the field to schedule and document facility inspections. These inspections are conducted on a per-facility basis. For medium and low-priority inspections, the inspector conducts drive-by reviews. Casc utilizes the City’s database applications, EnerGov and IG Inspect, a web-based mapping interface, as an organizational and scheduling tool. Casc inspectors view which facilities have been inspected, need to be inspected, and require follow-up. Inspectors use the tools to schedule facility inspections based on the priority level of the facility to help Casc inspectors guide a more efficient and effective workflow.

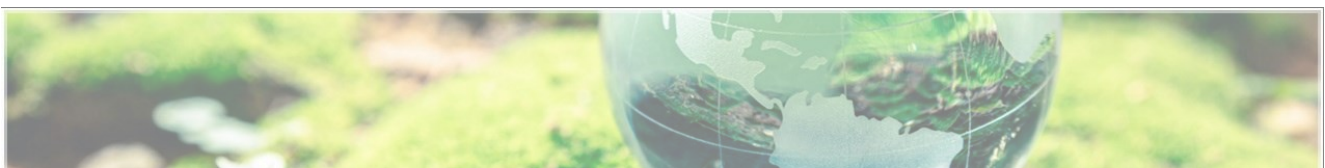
INDUSTRIAL/COMMERCIAL FACILITY INSPECTION PROGRAM
CITY OF IRWINDALE, CA

Casc has provided the City of Irwindale with NPDES compliance services during the current MS4 permit term. Services have included oversight of permit programs (minimum control measures), coordination of shared Receiving Water monitoring, and performing 300 industrial/commercial facility inspections and development of the associated database. Casc also provided training to City staff related to the Industrial/Commercial Facilities Program and general MS4 permit requirements.

Using business license data provided by the City, Casc developed and prioritized a list of facilities for the Industrial/Commercial Facilities Database including a GIS map of the facility locations. Casc developed an inspection form for inspectors and then conducted inspections at approximately 300 identified industrial/ commercial facilities to verify the implementation of Best Management Practices (BMPs), eliminate illicit connections and/or discharges, and verify permit coverage.

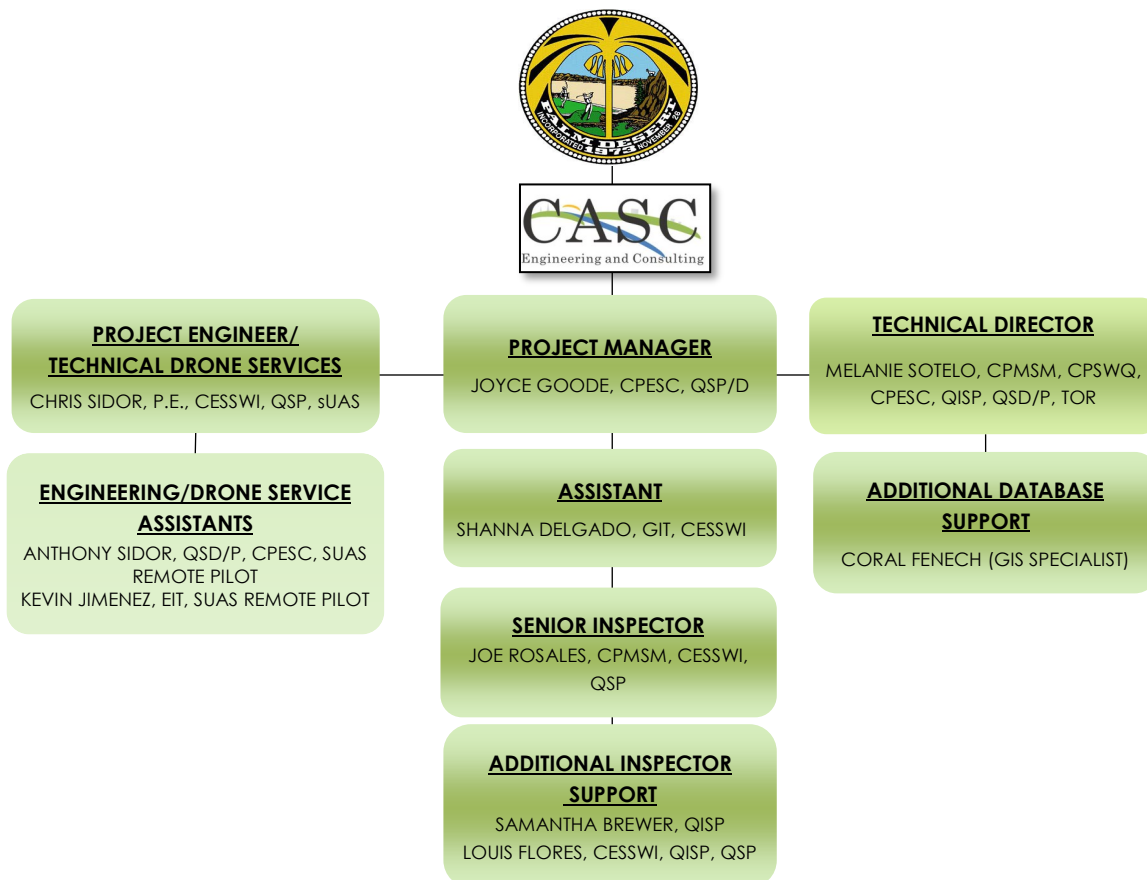
B. EXPERIENCE AND TECHNICAL COMPETENCE—CLIENT REFERENCES

CLIENT	CONTACT INFORMATION	SERVICES
Cathedral City	John Corella, P.E. Director of Engineering/ Public Works (760) 770-0327 jcorella@cathedralcity.gov	NPDES MS4 Inspection Program and NPDES Support Services (2018-Present)
City of Palm Springs	Rick Minjares Engineering Associate (760) 323-8523 x8741 rick.minjares@palmspringsca.gov	NPDES Program Management (2016-Present)
City of La Quinta	Amy Yu Associate Engineer (760) 777-7047 ayu@laquintaca.gov	Industrial, Commercial, and Restaurant Inspection Program (2019-Present)
City of Palm Desert	Melanie Perry Senior Management Analyst (760)776-6424 mperry@palmdesert.gov	NPDES MS4 Inspection Program and NPDES Support Services (2020-Present)
Riverside County Transportation Department	Jan Bulinski Senior Planner (951) 955-6859 jbulinski@rivco.org	NPDES Program Management (2007-Present)
City of Hemet	Daniel Cortese Management Assistant/ NPDES (951) 765-3712 DCortese@cityofhemet.org	NPDES MS4 Inspection Program (2016-Present)
City of Temecula	Annie Bostre-Le Public Works Stormwater Manager (951) 308-6387 annie.bostrele@temeculaca.gov	Industrial and Commercial Inspection Program (2017-Present)
City of El Monte	Lee Torres, P.E. Acting Public Works & Utilities Director/ City Engineer (626) 580-2055 ltorres@elmonteca.gov	Technical Consulting Services Related to NPDES Compliance
City of Irwindale	Sarah Rocha Engineer Technician/ Public Works Engineering (626) 430-2264 srocha@irwindaleCA.gov	Technical Consulting Services Related to NPDES Compliance



C. FIRM STAFFING AND KEY PERSONNEL

The chart below presents the organization of Casc’s proposed team for MS4 Permit Inspections and NPDES Support Services. Casc proposes a primary team of five (5), with an additional five (5) team members available for support on an on-call basis. The team is led by Project Manager Joyce Goode, who will be principally responsible for working and communicating with the City, with support from Technical Director Melanie Sotelo, who will be responsible for day-to-day inspection oversight and scheduling. Casc’s strong team of water quality inspection and technical staff are all experienced in the stormwater compliance requirements for food facilities and hazardous material facilities and have performed numerous stormwater compliance inspections. The Casc team holds professional registrations or credentials that attest to their knowledge, skills, and abilities so that the City can have exceptional confidence in the team. No subconsultants/subcontractors are proposed for use on this project, as Casc is able to perform all of the work and activities described in the proposed Scope of Work.



BCEE – Board Certified Environmental Engineer
 CPMSM – Certified Professional in Municipal Storm Water Management
 CPSWQ – Certified Professional in Storm Water Quality
 CPESC – Certified Professional in Erosion and Sediment Control
 CESSWI – Certified Erosion Sediment and Storm Water Inspector
 EIT—Engineer in Training
 GIT – Geologist in Training

PE – Professional Engineer
 QISP – Qualified Industrial Storm Water Practitioner
 QSD – Qualified SWPPP Developer
 QSP – Qualified SWPPP Practitioner
 sUAS—Small Unmanned Aircraft Systems
 ToR – Construction General Permit Trainer-of-Record
No Subs will be needed.



MELANIE SOTELO, MSE, CPMSM, CPSWQ, CPESC, ENVSP, QSD/P, QISP, TOR_{CGP}
TECHNICAL DIRECTOR

Ms. Sotelo has more than 25 years of professional engineering related experience including over 20 years in the specialized field of NPDES Stormwater Permit Compliance. She possesses extensive knowledge of California’s Construction, Municipal (MS4) and Industrial permits, and has extensive experience in civil design, designing of site grading, installing waterlines, and roadway improvement design. Ms. Sotelo has worked extensively with the State Water Resources Control Board, the Santa Ana Regional Board, the Colorado River Regional Board, and the Los Angeles Regional Board. She has been a course instructor for classes related to the Construction General Permit, Riverside County Santa Ana River and Whitewater River watersheds’ NPDES MS4 Permits, and San Bernardino County’s NPDES MS4 Permit.

RELEVANT EXPERIENCE

City of Palm Springs Stormwater Program Manager: Casc is currently under contract with the City of Palm Springs for NPDES services, with Ms. Sotelo serving as the City’s Consultant Storm Water Program Manager providing guidance and implementation requirements of the Whitewater River Watershed to verify that the City remains in compliance with its MS4 Permit and Statewide Trash Amendments. Ms. Sotelo’s duties include oversight of construction inspections, commercial/industrial inspections, municipal staff training, policy and ordinance reviews and modifications, WQMP program guidance, IC/ID inspections and enforcements, trash amendment services, and other activities related to general NPDES requirements.

City of Cathedral City and La Quinta: Casc is currently under contract with the Cities of Cathedral City and La Quinta to provide NPDES inspection services. Ms. Sotelo serves as the Project Manager for both agencies and is responsible for oversight and resources related to meeting inspection requirements per the WWR MS4 Permit. Ms. Sotelo is responsible for verifying inspections are completed in a manner that remains compliant with MS4 Permit requirements.

City of Hemet Stormwater Program Assistance: Casc is currently under contract with the City of Hemet to provide Stormwater Program Management assistance services. Ms. Sotelo serves as the Project Manager for commercial/industrial and restaurant facility inspections conducted by Casc and City staff. Ms. Sotelo provides oversight and training to City staff, providing ongoing training of existing staff on the implementation of the Santa Ana River MS4 Permit. Ms. Sotelo represents the City at the Santa Ana River Technical Advisory Committee (TAC) meetings, the SAR/SMR BMP Development Subcommittee meetings, and the Lake Elsinore/Canyon Lake TMDL Task Force. Ms. Sotelo also provides oversight and guidance of the City’s Statewide Trash Amendment planning and mapping activities.

Riverside County Transportation Department NPDES Coordination and Stormwater Program Support Services: Casc is currently under contract with County Transportation to provide Stormwater Program Management Assistance Services. Ms. Sotelo served as Transportation Department’s Interim NPDES Coordinator, provided training to the current NPDES Coordinator, and continues to provide NPDES support to staff on the implementation of the County’s three NPDES MS4 Permits. Ms. Sotelo is currently representing the Santa Ana

EDUCATION:

- M.S. Engineering-Environmental/ University of California – Riverside
- B.S. with Honors/ Environmental Science/ University of Phoenix, AZ

PROFESSIONAL CERTIFICATIONS/ AFFILIATIONS:

- CASQA Board of Directors (2021-present) – Director
- CASQA Executive Program Committee – Past Co-Chair Construction Subcommittee
- International Erosion Control Association, Western Chapter (2018 - Present) – Administrative Vice President
- Certified Professional in Storm Water Quality (CPSWQ) No. 913
- Certified Professional in Erosion and Sediment Control (CPESC) No. 5693
- Certified Professional in Municipal Stormwater Management (CPMSM) No. 406
- California Stormwater Quality Association - Trainer of Record Construction General Permit
- California Stormwater Quality Association - Qualified SWPPP Developer and Qualified SWPPP Practitioner (QSD/P) Certification No. 225
- California Stormwater Quality Association - Qualified Industrial Stormwater Practitioner (QISP) Certification No. 685

River Watershed on the *Public Information and Education Subcommittee*, attends Co-Permittee TAC meetings and Permit negotiations. Ms. Sotelo is also overseeing planning and mapping activities related to the Statewide Trash Amendments.

Water Quality Management Plan (WQMP) and Transportation BMP Guidance Training, San Bernardino County: As part of Casc's experienced Water Quality Training Team, Ms. Sotelo was responsible for the development and co-presentation of the County's WQMP training for San Bernardino County agencies and the public. Additionally, Ms. Sotelo was responsible for the development of training for the County's Transportation BMP Guidance document that was presented to agency staff. Training covered feasibility determination for implementation of LID BMPs in both public and private projects, including selection of BMPs based on the hierarchy of LID BMP implementation.



JOYCE GOODE, CPESC, QSD/P
PROJECT MANAGER

Ms. Goode has over nineteen years of experience in the civil engineering and consulting industry, with work on projects as diverse as multi-phased residential developments to utility projects. Her career as a Project Manager is focused on NPDES permit compliance and she is an expert in the Industrial General Permit, Construction General

EDUCATION:

BS/Environmental Geology / California State University, San Bernardino

PROFESSIONAL

REGISTRATIONS/ AFFILIATIONS:

- Certified Professional in Erosion and Sediment Control (CPESC) No. 8448
- California Stormwater Quality Association - Qualified SWPPP Developer and Qualified SWPPP Practitioner (QSD/P) Certification No. 25905

Permit, and MS4 Permits. Ms. Goode assists multiple municipalities with managing compliant programs. She is currently leading teams in the development of GIS-based applications for management of NPDES compliance activities to meet the requirements of MS4 Permits. She is an expert in commercial, industrial and construction inspections. In addition to her inspection experience, Ms. Goode has reviewed, prepared and processed multiple water quality management plans and storm water pollution prevention plans to comply with NPDES permitting requirements.

RELEVANT EXPERIENCE

NPDES Inspections, City of Palm Springs: Ms. Goode is Assistant Project Manager for the NPDES inspection program for the City of Palm Springs. She organizes and utilizes resources to complete tasks to comply with regulatory requirements for all Riverside County MS4 Whitewater River Region compliance-related inspections: commercial, industrial, municipal and construction. She uses local, state and federal databases to identify sites that meet the criteria for inspections under current permitting requirements. Ms. Goode also provides oversight for all inspection staff and program activities. As part of the inspection program, Ms. Goode has assembled and leads a team in the development of a fully interactive inspection program using GIS software. The interactive program integrates GIS-based applications for the collection/editing of map data and form data for all inspections. She works regularly with City staff to provide inspection updates, recommendations regarding NPDES compliance, and reporting data. Ms. Goode develops innovative training classes for the field and classroom environments to educate City and consulting staff on NPDES-related topics.

Commercial/Industrial Inspections, Cathedral City: Ms. Goode is Assistant Project Manager for the NPDES Inspection program for the Cathedral City. She attends and leads kick-off meetings and progress meetings as needed via conference calls or web based communication platforms. She assists the City’s NPDES coordinator in identifying commercial and industrial businesses within the City’s jurisdiction that meet inspection criteria per the MS4 Permit and SWMP. Ms. Goode provides oversight of all inspections and provides updates to the City. She informs the City of potential or immediate threats to water quality. She aides in managing the project budget and prepares monthly progress reports to the City.

Commercial/Industrial Inspections, City of La Quinta: Ms. Goode is Assistant Project Manager for the NPDES Inspection program for the City of La Quinta. Ms. Goode evaluated facilities within the City’s jurisdiction to determine if the facilities met the inspection criteria per the MS4 Permit and SWMP. She updated the City’s inspection inventory with new commercial and industrial businesses and provided recommendations for existing facilities. She also works with the City’s NPDES Coordinator to determine which facilities are compliant with the current Permit inspection frequency and which facilities need additional inspections. Ms. Goode developed a 3-year inspection schedule for all inventoried facilities and provides oversight of all inspections.

Commercial/Industrial Inspections, City of Temecula: Ms. Goode is the Project Manager for the Commercial and Industrial facilities inspection program for the City of Temecula. She has developed inspection standards that comply with the Riverside County MS4 Permit Santa Margarita Region, the Santa Margarita Watershed Water Quality Improvement Plan, and the City’s Jurisdictional Runoff Management Plan (JRMP). Ms. Goode utilizes City databases and GIS software to construct a 5-year inspection program for over 4,000 facilities. As part of the program, Ms. Goode also analyzes the activities of each facility and its proximity to a 303(d)/TMDL listed waterbody to provide recommendations to the City to assist in identifying High Priority facilities.

Ms. Goode has field trained City staff and crews on inspection procedures and minimum BMP standards as specified by regulatory requirements. She develops the inspection teams and schedules. Ms. Goode also works with City staff to provide updates on field investigations and reporting data.

NPDES Compliance Program, City of Hemet: Ms. Goode is the Assistant Project Manager for the NPDES Compliance Program for the City of Hemet. She has worked closely with the City's NPDES coordinator to develop a compliant commercial and industrial inspection program including a GIS-based interactive inspection program using mobile and web apps that are used by both consulting and City staff. Ms. Goode also attends monthly LE/CL TMDL Task Force meetings and represents the City's interests during TMDL development. She also leads project kick-off meetings and project progress meetings with City staff. She assists in the preparation of the City's Annual Report and she provides on-call assistance with compliance measures related to the MS4 Permit, DAMP, LID and Trash Provision requirements. Ms. Goode also provides evaluations of existing LID and Facility Pollution Prevention Plans and updates as needed. She develops training programs and provides training to City and field staff regarding MS4 compliance. Ms. Goode prepares monthly project reports and manages the overall schedule and budget of the project. She verifies that tasks are completed on time and per contract terms.

Commercial/Industrial and FOG Inspections, City of Montclair: Ms. Goode is the Project Manager for the NPDES Inspection program for the City of Hemet. She works with the City's NPDES coordinator to identify commercial and industrial businesses within the City's jurisdiction that meet inspection criteria per the San Bernardino County Phase I MS4 Permit Santa Ana Region. Ms. Goode trains and assists staff in using the County's stormwater management software to complete inspections and review compliance history of facilities. She also provides oversight for FOG inspections to verify compliance with the City's FOG Program.

NPDES Training Services, Riverside County FC&WCD: Ms. Goode is a trainer for the County's NPDES training program. She assists with coordinating the delivery of the training program with the District, developing course content, and instructing training sessions. Ms. Goode is currently providing training for the Commercial Industrial program for the Santa Ana River Watershed, Santa Margarita Watershed, and the Whitewater River watershed.



SHANNA DELGADO, GIT, CESSWI, QSP
ASSISTANT PROGRAM MANAGER

Ms. Delgado is a member of Casc’s Water Quality Division. Having obtained a B.S. in Environmental Geology, Ms. Delgado has developed the fundamental knowledge of groundwater hydrology, field methods in hydrology, engineering geology, and geomorphology. An active member of the Inland Geological Society, she also previously participated in CSUSB Geology Club and Terrestrial Investigation Club. She has been the recipient of several awards, including: CHC Demonstrating Excellence in the Earth Science Discipline, Terrestrial Investigation Club Scholarship, and the Western Science Center Volunteer Excellency Award.

EDUCATION:

- BS/Environmental Geology/
California State University San Bernardino/California

**PROFESSIONAL REGISTRATIONS/
AFFILIATIONS:**

- Geologist in Training (GIT), 936
- 40-Hour HAZWOPER, #37931
- Certified Erosion Sediment Stormwater Inspector (CESSWI) No. 5727

RELEVANT EXPERIENCE

Industrial & Commercial Facility Site Inspections, Palm Springs, CA: Ms. Delgado has conducted inspections to determine compliance with the City’s Municipal Stormwater permit. Ms. Delgado has experience inspecting various business facilities. Looking into outdoor operations, material storage, waste management and potential sources of non-stormwater discharge, she collects and records field data to report. If non-compliance is determined, she informs the responsible party of different methods or BMPs to prevent pollutants from entering the storm drain.

Commercial & Industrial Facility Inspections Program, City of Hemet: Ms. Delgado has conducted Commercial and Industrial facility inspections for compliance with the City’s Municipal Stormwater Permit. For businesses, restaurants and industrial facilities, Ms. Delgado assesses the site drainage and BMPs in place. She has evaluated and made record of facilities grounds maintenance, outdoor operations and material storage to ensure stormwater inlets are protected from trash and other hazardous materials. In the event of non-compliance, she returns for follow-up inspection. Ms. Delgado submits her findings and offers solutions to educate the facilities on the proper methods to control and prevent pollutants from entering the storm drain system.

Construction Inspections, DR Horton: Ms. Delgado assisted a Qualified Stormwater Practitioner with inspection of active Risk Level 2 construction sites. She observed BMP deficiencies and reported them to the superintendent so repair could begin according to the project’s Stormwater Pollution Prevention Plan.

California Department of Transportation – TMDL Monitoring Program, Los Angeles County: Ms. Delgado performed characterization sampling for the Caltrans Total Maximum Daily Load (TMDL) monitoring in District 7. She sampled stormwater, recorded field measurements, and transported samples to the laboratories.

Upper Santa Margarita Irrigated Land Group – Del Luz: Ms. Delgado took part in site reconnaissance for Water Quality and Bioassessment Monitoring for agricultural irrigated land in Del Luz. She was responsible for preparation, organization, and calibration of field equipment and materials. Also, she recorded field measurements, and collected then secured grab samples from outfall site locations within the SMR watershed.

California Department of Transportation – ASBS Monitoring Program, Los Angeles County: Ms. Delgado assisted a sampling team for the Areas of Special Biological Significance (ASBS) Special Protections Monitoring Program for California Department of Transportation District 7. She helped prepare, organize, and calibrate field equipment tools and sampling kits used for field crews to sample stormwater runoff occurring in target locations along the Pacific Coast Highway in the City of Malibu coastline. Ms. Delgado collected stormwater samples, recorded field measurements, and transported samples to the laboratories.



CHRIS SIDOR, P.E., CESSWI, QSP, sUAS
PROJECT ENGINEER/TECHNICAL DRONE SERVICES

Mr. Sidor is a certified UAV operator holding a Part 107 Remote Pilot Certificate, demonstrating his compliance with FAA regulations for commercial drone operations. In addition to this mandatory certification, Mr. Sidor goes above and beyond industry standards by earning an AUVSI TOP Level 2 certification, which highlights his commitment to safety, professionalism, and operational excellence in unmanned aerial systems (UAS). Furthermore, as a licensed Professional Engineer (PE), Mr. Sidor brings a unique blend of technical expertise and engineering insight to his UAV work, applying the highest standards of precision and compliance. His qualifications allow him to deliver high-quality, secure, and compliant results for a range of projects, including critical infrastructure inspections, environmental assessments, and large-scale public works.

EDUCATION:

B.S./Civil Engineering / Arizona State University

**PROFESSIONAL REGISTRATION/
AFFILIATIONS**

- Professional Engineer (California, #90500)
- Professional Engineer (Arizona, #71611)
- sUAS Remote Pilot (California, #4030250)
- Certified Erosion, Sediment and Storm Water Inspector (CESSWI)
- California Stormwater Quality Association - Qualified SWPPP Practitioner (QSP) Certification
- 40 Hr HAZWOPER

RELEVANT EXPERIENCE

SOUTHERN CALIFORNIA EDISON (SCE) HYDRO POWER DIVISION – LEE VINING, KERN RIVER (REACH 1 & 3), LUNDY CANYON, RUSH CREEK, SANTA ANA FERC RELICENSING – DRONE INSPECTIONS AND DOCUMENTATION OF DAMS, LAKES, STREAMS, INTAKES, POWERHOUSES, SPILLWAYS, – VARIOUS LOCATIONS IN CA: Mr. Sidor provided specialized field and office drone support for Southern California Edison (SCE) as part of the Federal Energy Regulatory Commission (FERC) relicensing efforts for multiple hydroelectric facilities. He operated in remote and challenging environments across the Eastern Sierras, Southern Sierras, and San Bernardino National Forest, including sites near Yosemite National Park and the Kern River Hydropower facility. Mr. Sidor conducted comprehensive aerial surveys, capturing high-quality videography and imagery of critical infrastructure such as concrete and earthen dams, powerhouses, intakes, spillways, pipelines, tunnels, siphons, fish ladders, SCE buildings, and adjacent National Forest recreation facilities. He produced 360° imagery and detailed visual reports, including orthomosaic maps and 3D models, to support engineering assessments, project planning, and public outreach. One project included the integration of a multispectral camera onto one of the drones to assist with predicting animal habitats based on the flora and distance to water sources. Additionally, Mr. Sidor collaborated with SCE to develop scripts and integrate UAV data into videos presented at public meetings and hosted on the SCE website. Throughout these operations, he maintained compliance with the strict requirements of the forestry service, FAA, and military airspace regulations and maintained an AUVSI TOP Level 2 status. Data was delivered in secure formats for use in official presentations and documentation.

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS (DPW) – ON-CALL AERIAL PHOTOGRAPHY AND VIDEOGRAPHY UNMANNED AERIAL VEHICLE SERVICES – VARIOUS LOCATIONS IN LA COUNTY: Mr. Sidor provides unmanned aerial vehicle (UAV) services under a contract with the Los Angeles County Department of Public Works. He conducted aerial imagery and videography for various public works projects, capturing high-resolution imagery and video for use in planning, inspections, documentation, and reconnaissance. Mr. Sidor worked closely with the project manager and engineers to integrate UAV data into project workflows, and provides accurate and timely deliverables. He utilizes advanced post-processing techniques to produce orthomosaic maps and detailed visual reports. Throughout these projects, Mr. Sidor maintained compliance with FAA regulations and adheres to the quickly evolving UAV requirements. All data is delivered in secure formats for use on official platforms.

WESTERN MUNICIPAL WATER DISTRICT, SOLAR PROJECT UAV RECONNAISSANCE AND EROSION ANALYSIS - RIVERSIDE, CA: Casc was engaged by Western Municipal Water District (WMWD) to address and resolve post-construction erosion issues on a 5.64-acre solar array project. Mr. Sidor leveraged UAV technology to conduct an aerial survey of the site, producing detailed topographical maps and georeferenced drainage area maps. These maps were critical in the engineering analysis and development of effective mitigation strategies.

DR HORTON CONSTRUCTION SITE AERIAL DRONE RECONNAISSANCE AND PROJECT DOCUMENTATION-VARIOUS LOCATIONS IN CA: Mr. Sidor conducted UAV flights over multiple DR Horton construction sites to document progress and environmental compliance. The aerial imagery and video captured during these flights were integral to supporting the Notice of Termination (NOT) process for SWPPPs. Mr. Sidor utilized the high-resolution imagery to create orthomosaic maps, which were then integrated into CAD plans to develop detailed NOT maps. These maps provided essential documentation, demonstrating that the sites met the necessary regulatory requirements before project closure.

CITY OF SAN BERNARDINO, VINCENT WELL AERIAL IMAGERY, ORTHOMOSIC MAPS, VEGETATION MAPPING – SAN BERNARDINO, CA: Heavy rainfall during 2019/2020 posed a significant risk to the foundation of the City of San Bernardino’s Vincent Well facility, located within the Cajon Creek floodplain. Casc was contracted by the city to design flood protection and stream stabilization improvements for the site. Mr. Sidor played a key role in this project by employing UAV technology to support the engineering team. He utilized georeferenced aerial imagery to produce an orthomosaic photo, elevation maps, and a 3D model of the well site and surrounding area. These deliverables were instrumental in analyzing drainage patterns and assessing potential erosion impacts. The UAV data also contributed to the design of effective slope stabilization measures. Additionally, Mr. Sidor assisted the on-site biologist with a site assessment and vegetation mapping, providing high-quality aerial images that were used in a constraints level analysis report. His contributions assisted in guiding the engineering decisions for the project’s flood protection and stabilization efforts.

CITY OF INDUSTRY, FOLLOWS CAMP AERIAL RECONNAISSANCE - LOS ANGELES COUNTY, CA: Historic Follows Camp, a 100-acre property owned by the City of Industry and located along the lower East Fork of the San Gabriel River, experienced significant damage after recent heavy rains and flooding events. The flooding destroyed the property’s bridge and cut off vehicular access. Mr. Sidor utilized UAV technology to conduct aerial reconnaissance of the site, producing video and static imagery that were critical for the team’s inspection and assessment of the flood damage. The high-quality images and videos captured by Mr. Sidor were essential in identifying erosion for the design of flood mitigation measures.

BRASADA CONSTRUCTION SITE AERIAL DRONE RECONNAISSANCE AND PROJECT DOCUMENTATION - SAN DIMAS, CA: Mr. Sidor has been utilizing UAV technology to provide aerial site reconnaissance for construction operations at an exclusive gated community adjacent to the Angeles National Forest. The 273-acre site, characterized by steep topography and sensitive environmental features, required significant earthwork, including excavation, remedial work, and the placement of crushed rock. Infrastructure development included roads, storm drain systems and utilities, with a strong emphasis on environmental compliance and mitigation measures. Mr. Sidor’s drone flights captured both video and static imagery, which were used for various construction management purposes, including the development of SWPPP staging plans. The aerial documentation proved especially valuable during the record-setting 2018-2019 rainy season, which rendered much of the site inaccessible by conventional means.

TELECOMMUNICATION TOWER SURVEYS AND INSPECTIONS AND POST PROCESSING OF UAV FIELD SURVEYS —VARIOUS LOCATIONS - ARIZONA, COLORADO, CALIFORNIA, NEVADA, TEXAS, MONTANA: Mr. Sidor utilized UAV technology to support telecommunication tower surveys and inspections across multiple states. These surveys involved a range of tasks, including the observation of existing telecom towers, surveying proposed tower locations, rooftop surveys, and assessments of existing light standards for potential 5G communication retrofits. Back in the office, Mr. Sidor analyzed and processed the collected data, using post-processing software and AutoCAD to generate precise and actionable insights from the UAV imagery.



**LOUIS FLORES, QISP, CESSWI, QSP
INSPECTOR**

Mr. Flores has over nine years of experience in the engineering and survey field. He is actively involved with Casc’s stormwater group providing stormwater monitoring and sampling, IC/ID response, construction site inspections, and commercial/ industrial inspections.

RELEVANT EXPERIENCE

Commercial / Industrial Facility Inspections, City of Palm Springs and City of Cathedral City: Mr. Flores has conducted inspections of commercial-industrial facilities to determine compliance with the local, state, and federal stormwater ordinances. He has evaluated businesses, restaurants, auto repair facilities, gasoline stations and industrial facilities for proper stormwater pollution prevention measures.

City of Palm Springs IC/ID On-Call Response Services, City of Palm Springs: Mr. Flores responds to citizen complaints regarding the discharge of pollutants to the City’s drainage system. He documents what current site conditions are and educates the property owners/business operators of the discharge to adhere to local ordinances, and state and federal stormwater regulations. Mr. Flores coordinates with local agencies including Code Enforcement, Building and Safety, emergency spill response clean-up crews and Palm Springs Wastewater Treatment Plant representatives and oversees clean up, repair, and maintenance procedures when necessary. He follows up with the dischargers to verify corrective action has taken place or is in the process of taking place. He serves enforcement actions if needed to the owners/operators, submits findings to the City of Palm Springs and the responsible parties, and writes formal statements to further describe and detail the evidence of the on-call response.

Construction Site Inspections, City of Palm Springs: Mr. Flores has conducted inspections of privately owned and city owned construction site projects to determine compliance with the City of Palm Springs stormwater ordinance. He evaluates active construction sites for proper stormwater pollution prevention measures. He records field inspection data, and submits findings to the City of Palm Springs and to the site operators.

Trash Amendment Mapping, City of Palm Springs and County of Riverside Whitewater Region: Mr. Flores has researched and mapped storm drain catch-basins, inlets, surface drainage areas, and other stormwater features for the implementation of statewide Trash Amendment capture devices for high density residential, commercial, industrial, and public transportation areas within the City of Palm Springs and within the County of Riverside.

Low Impact Development (LID) Post-Construction BMP Inspections, City of Carlsbad: Mr. Flores has inspected over 150 Low Impact Development Post-Construction BMP installations for the City of Carlsbad. He scheduled and conducted the field inspections and made field observations of post-construction BMPs identified in the WQMP of the project site. He evaluated several different types of post-construction BMPs including bioretention facilities, extended detention basins, infiltration basins, and vegetated swales. In his report, he investigated and recorded signs of recent maintenance, the need for future maintenance, damage to the BMP, any signs of standing water or odors and checked for proper design function. He wrote up an inspection report and took photos of each Low Impact Development Post-Construction BMP and reported findings to the City of Carlsbad.

NPDES Compliance Field Review Inspections, Corona-Norco Unified School District: Mr. Flores conducts NPDES construction compliance inspections for public school projects for the Corona-Norco Unified School District. He evaluates them for proper stormwater pollution prevention measures and compliance with the state of California Construction General Permit.

Commercial & Industrial Facility Inspections Program, City of Hemet: Mr. Flores conducts commercial/ industrial and restaurant facility inspections for compliance with the City’s Municipal Stormwater Permit. Mr. Flores is responsible for documenting and submitting findings to the City of Hemet as well as facility managers. In the event of non-compliance, Mr. Flores educates the facility employees and schedules a follow-up inspection.

EDUCATION:
BS/Environmental Science / University of California, Riverside

**PROFESSIONAL REGISTRATIONS/
AFFILIATIONS:**

- California Stormwater Quality Association - Qualified Industrial Stormwater Practitioner (QISP) No. 00940
- Certified Erosion, Sediment and Storm Water Inspector (CESSWI) No. 4940
- California Stormwater Quality Association - Qualified SWPPP Practitioner (QSP) No. 26490



SAMANTHA BREWER
INSPECTOR

Ms. Brewer joined Casc Water Quality Department in December 2021. Ms. Brewer is actively involved with Casc’s stormwater group, managing commercial industrial inspections, on-call illicit connection/illegal discharge response services, and construction site SWPPP inspections on SCE and homebuilding projects. She educates business owners, industrial business owners and managers, construction site operators, and private homeowners about proper stormwater pollution prevention measures.

RELEVANT EXPERIENCE

Environmental Analyst, Colton, CA: Ms. Brewer is a field team member for private and public water quality clients. She assists with preparing SWPPPs, COIs, and NOTs to meet the terms of the California Construction General Permit (CGP). She prepares spreadsheets to summarize data, and edits presentation materials. Ms. Brewer assists in presenting training modules, she proofreads and edits documents, and assists with billing and billing spreadsheets.

Commercial/Industrial Facilities, City of Palm Springs/City of Palm Desert / City of Cathedral City: Ms. Brewer has evaluated businesses, restaurants, and Commercial-Industrial facilities to determine compliance with city stormwater ordinances, and for proper stormwater pollution prevention measures. She has assisted with scheduling, budget management, recorded field inspection data and submitted findings to the responsible parties. She educated the responsible parties on suitable stormwater pollution prevention housekeeping measures and followed up when necessary. For the City of Palm Springs, Ms. Brewer has worked on the documentation for the pavement rehabilitation projects. She has submitted Notice of Termination, and Annual Reports in the Stormwater Multiple Application and Report Tracking System (SMARTS).

NPDES Inspections, City of Rialto: Ms. Brewer serves as the Assistant Project Manager for the NPDES inspection program for the City of Rialto. She provides oversight for inspection staff and program activities. She assists with SMARTS (Notice of Termination, Annual Reports, Change of Information), scheduling and budget spreadsheets.

Linear Utility Construction Sites, Southern California Edison: Ms. Brewer ensures proper BMP installation and verifies that soil cover is reinstated after installation has been completed. She uses CloudCompli database to generate reports and verify site weather conditions.

EDUCATION:

B.A. Criminology and Justice Studies / California State University, San Marcos, CA

PROFESSIONAL REGISTRATIONS/AFFILIATIONS:

- California Stormwater Quality Association - Qualified Industrial Stormwater Practitioner (QISP) No. 01499
- California State University San Marcos- Academic Dean’s list four consecutive semesters (2018- 2020)
- CSUSM Research Symposium - Awarded for Sociological research presented Spring 2019.



CORAL FENECH
GIS SPECIALIST

Ms. Fenech is an expert in the GIS field, utilizing a wide variety of platforms, including ArcGIS 10.6, ArcGIS Spatial Analyst, ArcGIS 3D Analyst, ArcGIS Data Reviewer, ArcGIS Online, Web AppBuilder for ArcGIS, Story Maps, ArcGIS for Server, ArcSDE,

ArcGIS Collector, Survey123, Geometric Network, ArcHydro, ModelBuilder, ArcPad, Trimble GPS, Arrow GPS, Adobe Illustrator, Adobe Photoshop, Microsoft Access, Microsoft Excel, Sharepoint 2013, Sharepoint Designer, Bluebeam, AutoCAD 2016, ERDAS, ENVI, Oracle, Python, SQL, VBA, HTML, and XLM. Ms. Fenech possesses an extensive understanding of cartographic and graphic design principles for map production in print and online. She is competent in statistical analysis and experienced with geodatabase design, creation, and maintenance from spatial and non-spatial data. Ms. Fenech brings strong environmental experience in analyzing and evaluating a wide variety of technical documents, environmental analyses, and associated with programmatic-level projects. She will serve as the City’s Geography Information Systems Specialist.

RELEVANT EXPERIENCE:

Commercial/Industrial Inspection Forms and Databases, City of Hemet: Ms. French is the lead GIS developer for the Commercial and Industrial facilities inspection program for the City of Hemet. She works closely with the City’s NPDES coordinator and inspectors to develop a digital inspection form and set up GIS information for direct digital transfer to the City’s municipal software tracking system, Cartegraph.

Ms. French was able to work with the inspectors to modify form layouts to promote a more efficient inspection reporting process, as well as allowing for a simplified data dump of completed inspection information for annual reporting purposes.

I-15 Widening from San Bernardino to I-215-HDR Engineering/Riverside County Transportation Commission, Riverside County, CA: GIS Lead on this 43.5 mile corridor improvement project. Coordinated field equipment set up, data and mapping needs, post-processing of the data, and any equipment/software training required by the ICF J&S field teams. Panasonic Toughbooks with ArcPad and Trimble units with standardized Data Dictionaries were provided to collect data for various technical reports such as Noise, Archeology, Jurisdictional Delineation, and Biology. ArcPad Application Builder was used to create consistently used forms and modify tools to maintain efficiency in the field. Provided training to the teams in using the equipment and software for data collection. Responsible for post-processing, managing, and organizing the field data coming in each week. In addition, coordinated all updates provided by HDR on the Rights of Entry, design files, and other base data to the team so they had the most current information in the field.

Mid County Parkway, Caltrans and Riverside County Transportation Commission, Riverside County, CA: Created various maps and datasets from extensive GIS analysis to compile a list of impacted parcels that needed surveying because of the proposed 32-mile corridor in Riverside County. Utilized cultural and biological criteria to derive parcel data and provide adequate metadata. Provided mapping and analysis for sections on Water Quality, Hazards, Community Impact Assessment, and Jurisdictional Delineation. Maintained and managed all corridor changes received from the engineers as well as map and data requests made by the client. Developed a secure database using Microsoft Access and VBA.

EDUCATION:

- B.A./Geography/GIS Certification/ California State University, Long Beach
 - ◆ Special Topics Study in Remote Sensing and Digital Image Processing
- ESRI Instruction Led Training
 - ◆ Using ArcGIS for Water Utility Workflows—August 2016
 - ◆ User Workflows for ArcGIS Online Organizations—August 2016.

PROFESSIONAL REGISTRATIONS, TRAINING, CERTIFICATES, LICENSES & AFFILIATIONS:

- California Public Utilities Commission (CPUC) Certified
- Women Business Enterprise (WBE)

AREAS OF EXPERTISE:

- Geographic Information System Mapping Technology (GIS)
- Coordinating with Engineers and interpreting As-Built Drawings
- Adept in cartography and map production
- Generating figures and analysis for CEQA/NEPA documents
- GPS equipment and applications
- Applications that support spatial and statistical analysis

I-605/I-5 Interchange Improvement Project PA/ED, Metro: Manage the GIS for I-605/I-5 PA/ED technical sections. Provide figures, calculations, and coordination with technical leads and engineering. Work closely with other involved Primes and Sub-consultants to achieve a cohesive and defensible submittal while meeting tight deadlines and budget. Project is in progress.

Tehachapi Renewable Transmission Project Biology Monitoring, Southern California Edison: GIS Lead on this five year/\$40M project and provided full-time GIS support to the TRTP Bio Team in field surveys, construction monitoring, report figures and calculations, and SCE Bio ad hoc requests. Coordinated the purchase of field equipment needs, data dictionary and ArcPad form set up, training required by the field teams. Worked with SCE and Sub-consultants in integrating engineering and managing continual updates to those files. Provided weekly file updates to SCE, ICF GIS, and Sub-consultant GIS that includes restriction data needed for construction efforts.



JOE ROSALES, CPMSM, CESSWI, QSP
SENIOR INSPECTOR

Mr. Rosales has more than 35 years of professional experience with a municipality, with over 17 years specializing in NPDES compliance. He administered the stormwater program for the City of Montclair. He also served as Chairperson for San Bernardino County’s stormwater Public Education subcommittee, and Chairperson for the County’s stormwater database, playing an intricate role in revamping the application to better serve all permittees. Mr. Rosales understands firsthand the challenges municipal governments face implementing the NPDES Permit.

EDUCATION:

- Various Coursework, University of California, Riverside

PROFESSIONAL

REGISTRATIONS/ AFFILIATIONS:

- CPMSM Certification (CA, No. 219)
- CESSWI Certification (CA, No. 1223)
- QSP Certification (CA, No. 1223)
- Certified Environmental Compliance Inspector Grade 1 (CA, No. 0274119)

RELEVANT EXPERIENCE

City of Palm Springs and Rancho Mirage: Casc is currently under contract with the cities of Palm Springs and Rancho Mirage to provide NPDES inspection services. Mr. Rosales serves as a back-up inspector for both agencies to ensure commercial and construction projects are inline with meeting requirements per the WWR MS4 Permit. Mr. Rosales remains responsible to verify Inspections are completed in a manner that remains compliant with both MS4 Permit requirements and coronavirus pandemic restrictions.

City of Pomona: Casc is currently under contract with the City of Pomona to provide NPDES inspection services and Fats, Oils and Grease (FOG Program). Mr. Rosales serves as the Lead Inspector for Pomona and is responsible for oversight and resources related to meeting inspection requirements per the Los Angeles MS4 Permit. Mr. Rosales remains responsible to verify Inspections are completed in a manner that remains compliant with both MS4 Permit requirements and coronavirus pandemic restrictions.

City of Rialto: Casc is currently under contract with the City of Rialto to provide Stormwater Program Management assistance services. Mr. Rosales serves as the Assistant Project Manager for commercial/industrial and restaurant inspections, including Fats, Oil and Grease (FOG Program) interceptor inspections conducted by Casc and City staff. Mr. Rosales provides oversight and training to City staff, providing ongoing training of existing staff on the implementation of the Santa Ana River MS4 Permit and the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems Order NO. 2006-0003-DWG. Mr. Rosales represents the City at San Bernardino County’s Permittee General Meetings, and the Public Education subcommittee.

NPDES Inspections, Montclair, CA: Mr. Rosales supervised industrial/commercial inspectors and has an exemplary reputation as a “field trainer” for commercial and industrial inspections. He conducted thousands of industrial/commercial inspections, and also served as a SWPPP inspector, stormwater treatment device installation inspector associated with the WQMP, and post-construction BMP inspector. He has experience as a FOG inspector as needed.

Stormwater Project Manager, Montclair, CA: Mr. Rosales assisted with implementation of the NPDES Permit for the City of Montclair. He updated, revised and created municipal ordinances to comply with all federal and state stormwater regulations. Mr. Rosales assisted with the review of CEQA documents to ensure compliance with all federal, state, and local stormwater regulations. He created and managed a Water Quality Management Plan program for the City to ensure all federal, state, and local laws were followed. He prepared and managed the City’s stormwater budget to ensure the City was in compliance with the permit and to ensure the City stayed within budget. He assisted with the creation of the Comprehensive Bacteria Reduction Plan for the Dry Weather Flow TMDL and implemented a plan to show the City of Montclair was a non-significant discharger to the Santa Ana River. He also created the Illicit Connection/Illegal Discharge (IC/ID) program for the City. Through the IC/ID program, he created an educational program for the residences of the City.



KEVIN JIMENEZ, E.I.T.
ENGINEERING/DRONE SERVICE ASSISTANT

Mr. Jimenez has been utilized in a variety of field support roles for the past three years with Casc. From BMP monitoring station installations, to landfill operations, to AutoCAD support in the office, his ability to take on new and challenging tasks in support of the program managers is a valuable asset to the team.

Education:

B.S./University of California
Riverside/Mechanical Engineering

**Professional Registration/
Affiliations**

- Engineer-in-Training No.
177231

RELEVANT EXPERIENCE

WQMP Reviews – Riverside County, CA: Mr. Jimenez provides professional reviews of grading plans and water quality management plans (WQMPs) for the Riverside County Transportation Department. Grading plans are reviewed for compliance with County standards and the Riverside County Grading Ordinance, along with the California Building Code. Redline comments are added electronically in Bluebeam and Adobe Acrobat, and summary comments are provided with each review using a standard format developed by the County. WQMP reviews are conducted similarly using the County’s standard review checklist. WQMP reviews for Riverside County require detailed knowledge of unique requirements and standards in each of the County’s three watersheds.

Water Quality Management Plan (WQMP) Review, City of Moreno Valley: Mr. Jimenez assists the project manager for the Plan Check Contract for the City of Moreno Valley. As part of Casc’s plan check review team, Mr. Jimenez has also reviewed numerous WQMPs for the City of Moreno Valley. WQMP reviews are conducted to verify compliance with the Water Quality Management Plan: A Guidance Document for the Santa Ana Region of Riverside County, and local requirements of the City of Moreno Valley. Mr. Jimenez has detailed knowledge of stormwater, hydrology, and hydraulics, and provides WQMP preparers with detailed guidance so that their plans and reports can achieve compliance in fewer review cycles.

Water Quality Management Plan (WQMP) Review, City of Highland: As part of Casc’s plan check review team, Mr. Jimenez has reviewed numerous WQMPs for the City of Highland. WQMP reviews are conducted to verify compliance with the Technical Guidance Document for Water Quality Management Plans for the County of San Bernardino Areawide Stormwater Program, and Drainage Report reviews are conducted to verify compliance with the County of San Bernardino Hydrology Manual.



TONY SIDOR
ENGINEERING/DRONE SERVICE ASSISTANT

Mr. Sidor is an FAA-certified UAV pilot with specialized expertise in NPDES compliance, stormwater management, and MS4 Permit inspections. He plays a crucial role in assisting public works and private development projects in maintaining compliance with

NPDES regulations. His expertise supports the effective implementation of stormwater management programs, aligning with regulatory requirements.

Key roles include:

- NPDES Compliance & MS4 Permit Inspections
- Stormwater Management & BMP Monitoring
- UAV-Based Aerial Surveys & Documentation
- Environmental Compliance Monitoring
- Aerial Orthomosaic Photography & GIS Integration
- Drainage, Erosion & Structure Maintenance Inspections
- SWPPP Implementation & CGP Compliance
- Data Analysis & Reporting for Regulatory Submissions

EDUCATION:

B.S. Environmental Science,
University of Redlands, CA

**PROFESSIONAL REGISTRATION/
AFFILIATION:**

- Certified Professional in Erosion and Sediment Control, certification #16346
- California Stormwater Quality Association - Qualified SWPPP Practitioner/ Developer (QSP/D) Certification #28871
- sUAS Remote Pilot, California, #4553694

RELEVANT EXPERIENCE

MS4 Construction/Industrial Public Works Inspections– Pomona, Rialto, CA: Mr. Sidor conducted inspections of commercial and industrial facilities in compliance with MS4 Permit requirements and NPDES regulations. Focused on detecting potential pollutants entering stormwater systems and inspections of discharge points. Provided detailed inspection reports and recommendations to improve stormwater management practices.

Southern California Edison NPDES Compliance Inspections– Various Locations, Southern CA: Mr. Sidor conducted NPDES compliance inspections to verify BMP implementation, assess erosion and sediment control measures, and provide inspection reports with recommendations for maintaining NPDES compliance and protecting water quality.

Construction Inspections-Brasada Homes, San Dimas, CA: Mr. Sidor assisted with inspections at a Risk Level 2 construction site, focusing on the implementation and maintenance of both construction and post-construction Best Management Practices (BMPs) to comply with the project’s Stormwater Pollution Prevention Plan (SWPPP) and Construction General Permit (CGP). Thorough evaluations were conducted to confirm BMPs were effectively preventing pollutant discharge and erosion.

Aerial Documentation, Public and Private Development Projects—Various locations: Mr. Sidor is experienced in using Unmanned Aerial Vehicles (UAVs) for various projects like solar installations and bridges, providing high-resolution images and videos. This technology enhances project planning, execution, and marketing by offering unique views and detailed documentation, including grading operations and construction progress. He has also completed numerous flights for Southern California Edison, producing valuable outputs such as orthomosaic maps and multispectral imagery. His skills in UAV operation and software allow for precise, customized project deliverables.

Construction Inspections-DR Horton, Various Locations, Southern CA: Mr. Sidor contributed to construction inspections at DR Horton sites in Southern CA, focusing on Risk Level 1 and 2 sites for CGP compliance. He conducted detailed inspections, maintained a photo log for documentation, and provided recommendations for compliance with CGP and MS4 regulations after reviewing findings with site managers.

D. METHOD TO ACCOMPLISH SCOPE OF WORK

GENERAL APPROACH

Casc has proudly and successfully served the City of Palm Desert for the past 4 years. Casc’s ability to quickly respond and adapt to a variety of NPDES-related services requested by the City is attributed to its technically seasoned and dedicated staff who place the City’s needs as priority. Casc has reviewed and acknowledges the Scope of Work listed in the RFP and provides the following generalized summary approach.

Project Management: With over 20 years of professional experience, Joyce Goode will continue to serve as the Consultant NPDES Project Manager for the City. She has proven herself to be an expert in NPDES permits and a dedicated Project Manager for the City and will continue to be the main point of contact for City staff. To provide certainty for immediate response to City requests, Casc will continue to implement a parallel style of project management to serve the City.

- **Parallel Project Management:** Casc proposes the continuation of Parallel Project Management. This provides continual internal contact that occurs between the Project Manager and Assistant Project Manager, Shanna Delgado. Working as a team, they are always available to meet the needs of the City via text, phone call, video conference or email, allowing for immediate response for service requests or questions/concerns.

Casc will continue to serve the City as a “one-stop shop” for NPDES compliance.

This type of Project Management will allow Casc to continue to serve the City as a “one-stop shop” for NPDES compliance. Our full-service water quality team is available to support the Project Manager and Assistant Project Manager to continue to meet the needs of the City.

The following tasks have been developed to address all items in the Scope of Work outlined in the RFP.

TASK 1: NPDES SUPPORT SERVICES

Casc will continue to provide NPDES support services for the City. Proposed services will be covered by utilizing the team members that are strong in each area indicated in the Scope of Work. A generalized discussion of support services is summarized below:

Meeting Representation: Casc’s Project Managers currently represent clients at all regulatory, task force, watershed or status meetings. Casc can provide these types of representation services at a cost share with our other clients. All representation will be conducted in a professional manner and will keep the City’s interests at the forefront. Casc has established positive relationships with the Principal Permittees, Co-Permittees, and Regional. Casc’s involvement in professional stormwater management organizations, like the California Stormwater Quality Association (CASQA), gives Casc insight into new policies that could potentially impact Permittees in the Whitewater region. Casc has introduced and spearheaded several of the conversations regarding these new policies within regulatory and task force meetings on behalf of our White Water River clients. By doing so, others view our clients as leading the way in regulatory compliance.

City Coordination and Reports, Technical Studies, etc.: Casc’s team will continue to meet regularly with the City to provide updates on NPDES regulations, MS4 Permit renewal status, enforcement actions and other NPDES compliance-related items. Additionally, Casc can assist with work on required reports, such as fee studies, or ordinance reviews and updates, SWMP updates, SOPs, maintenance plans, inspections and other NPDES compliance items. All work will be coordinated with City staff as work progresses, providing the City with a continual status of assigned projects.

Permit Compliance and Policy: Casc’s experienced team stays ahead of the curve during Permit compliance negotiations and state polices. Casc will continue to provide updates the City these.

Annual Reporting: Casc has extensive experience in MS4 Permit Annual Report preparation and understands that providing the City time for review and comment on the internal draft of the report is essential. Casc will continue to provide suggested input and/or edits of proposed material to be submitted to the Regional Board. Further, Casc will work with City staff to obtain information required for reporting. Casc will then prepare the Annual Report with two (2) internal draft review periods consisting of two (2) weeks, to allow sufficient review time.

Inspection Fee Program: Casc has assisted several of our clients with the development of a fee study for implementation of the fee program for NPDES inspections. Casc can assist the City with the preparation of a fee study program to recoup costs associated with the NPDES inspection program.

Regulatory Audits: Casc has extensive experience assisting other agencies with regulatory audits. Casc has recently assisted in the City in preparing for an audit with the Regional Board, and also attended the audit to ensure the audit stayed within the parameters of the Board's agenda. Casc has years of positive experience working with the Colorado River Regional Board staff, understanding that Regional Board audits typically focus on particular elements of the MS4 Permit stormwater programs, and will continue to provide the following support:

- Work with City staff to obtain information and data required for the audit;
- Preparation or completion of any pre-inspection questionnaires and/or forms;
- Assistance during the audit process; and
- Assistance with response to audit findings and gathering support information.

Training: Casc is known for conducting annual workshops to train City staff and contract staff responsible for NPDES requirement implementation. Casc recognizes that these annual training sessions can be repetitive to most staff. Casc has worked diligently to provide informative and interactive trainings that are focused to specifically meet the needs of the audience to promote compliance with stormwater requirements. Casc has provided one-on-one as needed training to the City. Casc can offer more robust training in a number of formats including classroom, tailgate or virtual sessions. Additionally, *with CGP and IGP Trainers of Record on Casc's team*, optional training opportunities are also available to the City, such as QSD or QISP trainings.

Preparation of Grant Documents: Casc continually monitors for grant opportunities for our clients. We have an extensive experience in researching, preparing and submitting applications for grant programs using online application web-based modules and databases, such as OPTI. Casc has assisted, and is currently assisting, agencies with funding projections for the projects as requested by each program and Casc has developed project specific submittals and documents for uploading on behalf of the agencies that were represented.

TASK 2: NPDES INSPECTION PROGRAM

GENERAL PROCESS

Casc's inspectors currently provide inspection services for over 415 commercial, industrial, and restaurant facilities, as well as inspection services for on-call IC/ID investigations and construction inspections. Casc has a positive record of working with the business community to verify that facilities comply with permit requirements. Casc's inspectors are experts in compliance requirements of the MS4 Permit, the Construction General Permit and the Industrial General Permit. Casc inspectors will utilize the GIS database developed by Casc to implement mobile applications to complete inspections on mobile devices such as phones or tablets. Use of these applications provides data collection in real time and provides an efficient workflow between the Project Manager and inspectors. Services proposed include all five program areas as listed in the Scope of Services. Casc's proposed stormwater inspection general process is detailed below.

Inspection Project Administration: The approach taken in conducting NPDES-related inspections (commercial, industrial, restaurant, construction, and IC/ID) is generally the same, with subtle differences. Therefore, Casc will continue the following general inspection approach that has been fine tuned for conducting stormwater-related inspections.

- **Established Inspection Schedule:** Based on Casc's experience in the City and with MS4 Permit requirements for inspections (e.g., twice a permit term or once per permit term), Casc has established an inspection inventory database utilizing GIS and has developed an inspection schedule and frequency for all sites requiring inspection. Development and maintenance of the inspection schedule includes the following for consideration:

- ⇒ **Identify Inspection Development Type:** Casc will review the type of inspection, the inspection schedule/frequency, and the scope of required NPDES-related inspections. Identify geographically similar sites to increase the number of inspections performed daily, thereby reducing overall inspection completion timelines.
- ⇒ **Consider peak business hours:** Inspections will be scheduled to avoid peak business hours.
- ⇒ **Language barriers:** For business operators and construction sites where language barriers have the potential to cause a gap in communication regarding compliance, Casc has several bi-lingual inspectors to complete the inspections. Casc will also provide, as available, translated educational materials and pamphlets. Casc can also assist in the development of translated materials for the City per the City’s adopted policy requiring dual-language translation of documents and information distributed regarding educational brochures and outreach materials.
- ⇒ **Team Assignments:** The Project/Asst Project Manager will assign and schedule inspections to appropriately credentialed staff (e.g., P.E., EIT, QSD, QSP, QISP, CPSWQ) depending on the scope of inspection service required. The assigned inspectors will dress professionally and conduct themselves in a manner appropriate for conducting activities as representatives of the City.

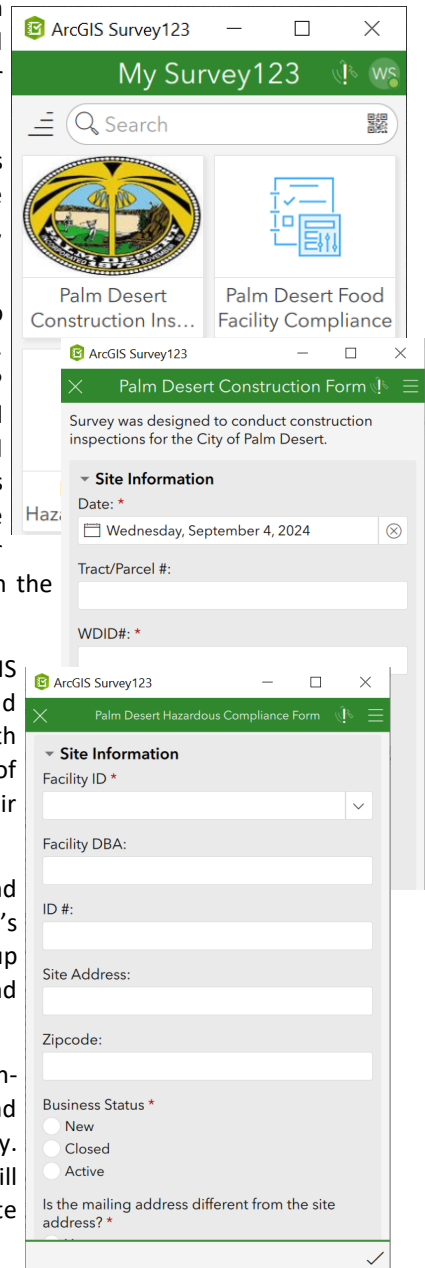
- **Inspection Preparation:** Assigned inspectors will utilize GIS and mobile apps to review the existing information depending on inspection type such as the project’s plan information, previous inspection reports, SMARTS database, compliance history, and project notes.

- **Perform Inspections:** Inspectors will use the ArcGIS Collector mobile app to locate facilities/projects that need to be inspected during the reporting year. The inspector will arrive and walk the facility to observe facility layout, BMP installation, interceptors, and/or facility activities, existing and potential compliance issues, and discharges, if any. The inspector will provide verbal and educational pamphlets during the inspections. If the inspector observes any non-compliance issues, the inspector will discuss the issues with the site representative and provide recommendations for compliance. The inspector will use ArcGIS Collector to schedule the next inspection date depending on the result of the inspection.

- **Documentation:** The inspector will complete the inspection form using ArcGIS Survey123. The inspection form will note observations, compliance issues, and provide recommendations to the facility on how to achieve compliance with Permit requirements. Inspection reports will be generated with photographs of the inspections and emailed or mailed to the facility owners/operators for their records.

- **Reinspection/Follow-up:** Inspectors will provide required reinspection and follow-up to verify items of non-compliance have been addressed. In Casc’s experience, approximately 20% of sites will require reinspection or follow-up services. All follow-up inspection activities will follow documentation and database requirements.

- **Notices of Non-Compliance and Citations:** Facilities found to be in non-compliance will be discussed with City staff and enforcement actions beyond the issuance of a Notice of Non-Compliance will be at the discretion of the City. The inspector will obtain photos of instances of non-compliance. Casc will notify the City of the Notice of Non-Compliance, if applicable. If immediate



threats to the health and safety of the public and/or the environment are observed, including illicit connections, or illegal discharges, the City will be contacted immediately.

- **Notifications and Reporting:** Since inspections are done in real time, inspectors are able to notify the Project Manager via text or phone call as needed and the Project Manger is able to review findings and report areas of concerns to the City without delay. Casc will continue this approach to guarantee that notifications and reporting are enforced.
- **Deliverables:** Casc will continue to provide the City with digital copies of all inspection reports and updated inventories in excel format.

ADDITIONAL PROCESS FOR COMMERCIAL/INDUSTRIAL INSPECTIONS

There are currently 415 active facilities in the City's NPDES inspection inventory. 187 facilities are classified as commercial or industrial, and 228 facilities that are classified as food/restaurant. Commercial or industrial facilities are required to be inspected twice during the 5-year Permit term. Food/restaurant facilities are required to be inspected once during the 5-year Permit term. To comply with the Permit's inspection requirements, Casc proposes a yearly target inspection goal of 94 commercial or industrial facilities and 45 restaurant facilities, for a total of 139 inspections annually. If facilities are added or removed, the Inspection Inventory and yearly inspection target goal will be updated.

Casc will continue to conduct the inspections to assist the City with fulfilling requirements of the Permit and SWMP. Casc will provide stormwater inspections of other facilities that pose a threat to stormwater in addition to commercial/industrial facilities as required.

Commercial/industrial inspections will also include the following steps:

- The inspector will field verify if the businesses are still operating. If businesses are no longer in operation, the inspector will update the inventory database to reflect an inspectable business is no longer at the location, or will update the database with a new facility.
- Industrial facilities subject to coverage under the Industrial General Permit (IGP) will be identified and the inspector will verify the facility operator has a current Waste Discharge Identification Number (WDID) or a current No Exposure Certification (NEC). If the industrial facility has not obtained IGP coverage, the inspector will notify the owner or owner's representative and provide information on obtaining coverage.

ADDITIONAL PROCESS FOR RESTAURANT INSPECTIONS

Most restaurant facilities have interceptors to separate fats, oils, and grease prior to entering the City's sewer system. If these interceptors are not maintained properly, sanitary sewer spills can occur which can potentially impact the City's MS4. If a restaurant is unable to provide maintenance records of the interceptor at the time of the inspection, Casc will coordinate with the City's NPDES contact to alert the City of the potential concern and will assist the City in coordinating with the agency responsible for conducting FOG inspections.

ADDITIONAL PROCESS FOR NPDES CONSTRUCTION COMPLIANCE INSPECTIONS

Currently, Casc conducts construction inspections for Low Priority projects 1 acre or greater per the schedule identified in the SWMP. Casc will continue provide Low Priority construction inspections and reporting services to verify compliance with the CGP is met. Casc will also include an option for High Priority projects greater than 50 acres. This item is discussed in the Optional Items section.

ADDITIONAL PROCESSES FOR IC/ID INSPECTION SERVICES

IC/ID inspections are triggered when a complaint has been filed or by field observations. These types of inspections are not scheduled and response time must be within 24-48 hours depending on the severity and health concerns. In order to be responsive to these types of on-call investigations, Casc has implemented a remote working environment for its team. As soon as an IC/ID investigation is triggered by the City via phone call, email or text, inspectors are able to arrive at the site within hours. Casc has worked successfully alongside with the City's NPDES Coordinator and Code Enforcement to stop discharges, and provide education to business owners and residents to prevent future discharges.

TASK 3: HOA, CITY STORM CHANNELS AND CITY RETENTION BASIN ANNUAL INSPECTIONS

GENERAL PROCESS

Casc proposes the following general approach for the annual inspections of 180 HOAs, City retention basins, and City storm channels.

Pre- Inspection meeting and record review: Casc will meet with the City to determine the parameters of the inspections. Parameters will include, but is not limited to: areas to be inspected, outfall locations, basin locations, and typical Post Construction BMPs (PC-BMPs) found in the HOAs. review existing files and databases, including but not limited to: as- built drawings, maintenance agreements, approved WQMPs, and GIS files. This process will assist Casc in ascertaining the layout, types of PC-BMPs, current status, and history of each HOA, City storm channel, and City retention basin. Casc shall also review existing files and databases, including but not limited to: as- built drawings, maintenance agreements, approved WQMPs, and GIS files. Existing files to be provided by the City. This process will assist Casc in ascertaining the layout, types of site specific PC-BMPs, current status, and history of each HOA, City storm channel, and City retention basin.

Perform On-Site Visual Inspections of HOAs and City Retention Basins: On-site visual inspections includes coordination and mobilization to the site of each HOA and City retention basin. Visual inspections will include making relevant observations regarding of PC- BMPs, including but not limited to: the presence or absence of the PC- BMP; the condition of the PC-BMP; indications of maintenance of the PC- BMP; and the drainage area of the PC- BMP for signs of excessive loading and/ or inappropriate discharges to the PC- BMP. Photographs of the PC- BMPs will be taken to document current conditions, especially when non- compliance is detected. During On- Site Inspections, as needed to assist in achieving compliance, the facility owner and/ or representative will be offered educational material regarding city, state, and federal regulations, MS4 Permit requirements, and BMP maintenance. All results of on-site inspections will be entered into the City's database to document inspection observations and the outcome of the inspection.

Casc has made the following assumptions for the proposal process:

- The City will provide all contact information for HOAs.
- The City has all structures identified in GIS.
- Training for City applications and databases will be provided to Casc (assumes 1-hr).
- HOA visual inspections are limited to PC-BMPs. If additional drainage structures, such as catch basins, are requested by the City, this may reduce the amount of inspections. Casc will work with the City to inspect higher priority sites first . If budget is remaining, Casc will conduct inspections of lower priority locations until the allotted budget is exhausted.

City Channel Inspections:

Casc, utilizing Unmanned Aircraft Systems (UAS), will provide aerial observations to assist with visual assessments of channels and outfalls.

Aerial services will be focused on up to 40 outfall locations along channels, assuming flights will be conducted within city limits, as identified by the City of Palm Desert. The UAS will be piloted by an individual (Pilot) holding a valid Remote Pilot Airman Certificate issued by the Federal Aviation Administration (FAA) in accordance with Title 14



of the Code of Federal Regulation (14 CFR) Part 107. Observations will be documented through digital video and photographs, then displayed in ArcGIS Pro. UAS services include:

- ◇ UAS Outfall Screening and Monitoring - Selected channels and up to 40 selected outfalls and will be flown to document conditions. The results of the flight will be documented through high-resolution aerial photography and videography (4K).

Deliverable: High-resolution photos and video (4K) and flight log showing the date of flight, weather conditions, and other pertinent information on digital media (Flash Drive, OneDrive, etc.).

- ◇ GIS Data Integration—Outfall data will be displayed in an ArcGIS format for ease of accessibility and viewing. Casc will utilize the provided City of Pomona ArcGIS account to publish data and build the application.

Deliverable: ArcGIS application that will contain data sets to assist the City with identifying current conditions at the proposed outfall locations. The ArcGIS map will display geolocated information including associated Site ID, outfall imagery, and outfall videos.

Casc will endeavor to plan flights per the client’s schedule. Flights will not be performed during inclement weather that could jeopardize the success of the flight as determined by the UAS Pilot in Command, or under a Temporary Flight Restriction (TFR) or other Notices to Airmen (NOTAM).

OPTIONAL SERVICES

CASC’s reputation is one of technical knowledge and field understanding combined with cost-effective approaches that meet the regulatory requirements in a reasonable manner. CASC strives to provide our clients solutions to water quality challenges that are sensible, practical, and performed by experienced professionals. In addition to the services outlined in the Proposed Scope of Services, CASC can also provide additional NPDES related professional support services, as negotiated between CASC and the City. These services are not included in the Not to Exceed Annual Total Cost of the proposal. If these services are chosen, the optional service will be added to the cost estimate and the Not to Exceed Total Cost will be updated to include chosen optional services. Optional Services may include:

HIGH PRIORITY CONSTRUCTION SITES

Construction projects greater than 50 acres are classified as High Priority sites in the current WWR SWMP. High Priority sites require monthly inspections during the Wet season. The Wet Season is defined in the WWR SWMP as August 1 – October 1 and November 1 – May 1. Inspections will follow procedures outlined in Task 2 of the Scope.

DEVELOPMENT OF GIS WEB AND MOBILE APPLICATIONS

Casc has collaborated with several cities within the Santa Ana River Watershed, Los Angeles River Watershed, and Whitewater River Watershed to develop NPDES inspection modules using GIS technology. These modules support the creation of web-based and mobile applications for NPDES inspection programs, allowing for real-time tracking and significantly enhancing the workflow and efficiency of these programs. Casc’s experience in developing these types of apps can be used to assist the City to begin the development of a self certification system using GIS apps. Self certification web applications can be used for inspection programs, such as the HOA inspection program, allow homeowners/ businesses/ HOAs to annually report findings and maintenance of BMPs. This process can reduce the overall cost of inspections that the City currently incurs.

ADDITIONAL UAS IMAGERY SERVICES

Casc can provide additional UAS imagery services to include, but not limited to: 360 imagery, ground-level photos in safely accessible areas near project outfalls features where aerial imagery cannot penetrate through the tree canopy or other hazards exist.