



## JOHN DUEWEL, PE

### *Project Manager*

#### BACKGROUND:

- 37 years' combined experience in land development and water resources engineering
- Registered Professional Engineer with extensive experience in construction plan preparation, drainage design, and hydrology
- Prepared conceptual, preliminary and final designs, prepared various hydrologic and hydraulic calculations and reports
- Coordinated with many public agencies, developers, and contractors, all in the effort to process project plans to approval and construction of facilities
- Overall project design and site development experience has included working with water resources consultants and other development team consultants
- Expanded experience to include storm water management, FEMA/NFIP processing, river and large channel hydraulics, detention, and other water resources functions

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Registered Civil  
Engineer, California

BS, Civil Engineering,  
Oregon State  
University

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#### RELEVANT EXPERIENCE:

##### LAKESIDE'S RIVER PARK CONSERVANCY - LAKESIDE, CA

Mr. Duewel provided extensive consulting services for this large river restoration project in Lakeside's San Diego River Park. He designed field station grading plans, researched utility needs and designs, coordinated trail design efforts, and performed site inspections as the restoration work progressed. As the project neared completion, Mr. Duewel provided coordination efforts with County staff in the restoration/mining permit release and project acceptance process.

##### SOUTH SANTA FE STREETScape PROJECT - VISTA, CA

Mr. Duewel was an integral part of the design team for this important revitalization project in the South Santa Fe Corridor of Vista. The South Santa Fe Streetscape Project (also known as the Paseo Santa Fe Corridor) was a redevelopment of the South Santa Fe urban corridor. Extensive streetscape upgrades included enhanced pedestrian-friendly designs, street furniture, trees, traffic calming, and decorative pavers. Mr. Duewel led the TRWE team and provided the backbone hydrologic, hydraulic, and stormwater design. He also assisted the design team and City staff with water quality designs, reports, and state grant backup. Extensive trunk and lateral storm drain designs, retrofit drainage designs for existing facilities, and stormwater provisions were all provided for the design team and the City. Extensive coordination with other consultants and City staff was required in the effort, due to multiple utility and existing roadway constraints.

##### BUTTERFIELD TRAILS RANCH - VALLEY CENTER, CA

Mr. Duewel served as Project Manager, and prepared a drainage study report and coordinated storm water and HMP designs with the overall site layout. Storm water, HMP, and LID considerations were critical in the overall design of the project, along with perimeter floodplain limits of Moosa Creek.

##### OCEANSIDE MASTER PLAN OF DRAINAGE - OCEANSIDE, CA

Mr. Duewel performed civil engineering related tasks for this large drainage master plan, including research, detention basin optimization, trunk storm drain facility analysis, cost estimates, and project coordination. He has become very familiar with drainage problem areas in Oceanside, maintenance department personnel and rainy-season maintenance activities. He played an integral part in combining research of facilities and hydrologic modeling for the master plan.

##### OCEANSIDE CIP ANALYSIS - OCEANSIDE, CALIFORNIA

As a follow up to the Oceanside MPD, TRWE provided a more detailed analysis of deficient areas and provided design-level figures and cost estimates.





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### **RELEVANT EXPERIENCE (CONTINUED):**

#### **YOKOHL RANCH - TULARE COUNTY, CA**

Mr. Duewel performed hydraulic analyses for the 36,000 acre project in Tulare County. He prepared HEC-RAS hydraulic models for Yokohl Creek, which drains the 70 square mile watershed, to determine post-project 100-year floodplain limits. He coordinated with project civil and planning consultant to blend creek design into the designs for adjacent residential, commercial, road, open space, and park areas.

#### **AGUA HEDIONDA CREEK RESTORATION - VISTA, CA**

Mr. Duewel was an integral part of the design team to prepare a Preliminary Design Report for this extensive creek restoration effort of the 3,800-foot reach of Agua Hedionda Creek. The creek restoration is a significant portion of the mitigation needed for the City of Vista Sewer Program, in their efforts to upgrade sewer systems throughout Vista. Mr. Duewel provided research, utility coordination, preliminary designs, and overall project coordination with team members, including survey, geotechnical, and biological consultants. His efforts included extensive interaction with City of Vista staff in several departments.

#### **MEADOWBROOK VILLAGE - ESCONDIDO, CA**

As Design Engineer, Mr. Duewel was involved with this large urban creek realignment/channelization project, designing large multiple box culverts, riprap drop structures, channel transition structures, channel grading, and channel revetment. He assisted in processing the LOMR application in conjunction with HEC-RAS modeling of the creek, channel and embankment design; design and modeling of culverts, modeling of bridge, and project coordination, all in conjunction with residential development.

#### **WHELAN RESTORATION - OCEANSIDE, CA**

Mr. Duewel has provided design management as part of the team of consultants with this 32-acre restoration site along the San Luis Rey River. TRWE provided hydraulic analysis, grading and restoration design, low-flow considerations, river geomorphology, and final plan preparation. Mr. Duewel provided services to the team in the efforts for project access, coordination with City utility managers, plan implementation and cost analysis with the restoration contractor, river hydraulic design considerations, and coordination with local, state, and federal agencies in the design process effort.

#### **CALTRANS 1-5 SEGMENT 2 WIDENING – MISSION VIEJO, CA**

Mr. Duewel was Project Engineer for the hydrology, hydraulics and storm water management aspects of this project, which consisted of widening on both sides of freeway, interchange improvements and bridge widening at Oso Creek. The drainage-related aspects of the project included modification and extension of multiple storm drain systems, design of new storm drain systems, and hydraulic analysis and design in support of new bridge construction at creek crossings. He also prepared hydraulic calculations for Oso Creek and LaPaz Creek, analyzing potential scour depths for the bridge pilings, and sizing rock revetment. He managed the analysis of multiple storm drain systems over the 2.8 mile reach, in support of the CALTRANS drainage plans provided by co-consultants.

Tasks performed included a complete hydrologic analysis of all tributary areas, inlet sizing, shoulder-capacity calculations, hydraulic calculations for storm drains, channel and swale calculations, and revetment calculations. A drainage report was provided in CALTRANS format, including all the supporting roadway drainage calculations, and the Oso and LaPaz Creek hydraulic analyses.

All the tasks listed required extensive coordination with the project team of consultants, including engineers for bridge and roadway design, drainage plans, and landscape-irrigation plans.





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### **RELEVANT EXPERIENCE (CONTINUED):**

#### **LA JOLLA VIEW RESERVOIR - SAN DIEGO, CALIFORNIA**

Coordinating with project team members for this effort, Mr. Duewel provided hydrologic and stormwater consulting services for this City of San Diego project. He identified existing facilities, mapped drainage areas, and assessed drainage designs of proposed facilities.

#### **LENOX VECTOR HABITAT REMEDIATION PROJECT - SAN DIEGO, CALIFORNIA**

Mr. Duewel was an integral part of the design team for this urban creek restoration project in the Chollas Creek watershed in southeast San Diego. A team of engineers, biologists, restoration ecologists, and restoration contractors collaborated on repair of the scoured creekbed with resulting ponded mosquito habitat. The team replaced the affected reach with a riffle-type creekbed with natural rocks of various sizes, engineered for velocity reduction and positive drainage at the culvert entrance. Mr. Duewel led hydraulic design efforts, preliminary plan preparation, project coordination, and ultimately grading plan processing and permitting through the City of San Diego Development Services Department. In addition, he participated in construction management and inspection as the plan was implemented and ultimately accepted by City staff.

#### **CLEVELAND STREET- OCEANSIDE, CALIFORNIA**

TRWE teamed with Dokken Engineering and provided 30%/60%/100% construction plans and supporting calculations for this vital Oceanside downtown Master Drainage Facility. This aging trunk storm drain in Cleveland Street and Surf Rider Way has been in place since 1930, and continued downtown development made this a high priority for the City of Oceanside. Mr. Duewel was an integral part of the design team, managing the drainage and stormwater aspects of the project. He was part of the TRWE Master Plan of Drainage in 2011, 2012, through which TRWE identified the downtown corridor drainage deficiency, especially the Cleveland trunk. Mr. Duewel and the team further refined the design with the 2018 drainage study and construction plan support for Dokken. TRWE mapped the approximately 200-acre tributary area, identified localized flooding and curb inlet upgrade needs, analyzed multiple design alternatives, and redesigned the ocean outfall at Surf Rider Way. The existing aging 36-inch and 42-inch storm drains will be replaced with 36-inch, 54-inch, and 72-inch RCP storm drains. Project challenges included existing utility constraints (Fallbrook and Camp Pendleton Sewer Outfall Lines), NCTD rail line crossing, localized flooding near the Oceanside Transit Center, and lack of elevation drop along Cleveland Street.

