



**FLOOD CONTROL DISTRICT of Maricopa County**  
**2801 West Durango Street, Phoenix, AZ 85009-6399**  
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**Flood Control District of Maricopa County (FCDMC)**  
**Offers Four Training Workshops on**  
**Drainage Design Management System for Windows (DDMSW)**

**About the Workshop:**

FCDMC is offering four training workshops: two identical workshops for “Hydrology and Storm Drainage Hydraulics” and two identical workshops for “River Mechanics”. The workshops will be held in the MCDOT Computer Training Room at 2919 W. Durango Street, Phoenix AZ 85009 (see Map below). **Each workshop carries six hours of Continuing Education Credits (CEC).** The workshop would be based on Version 5.6.0 of DDMSW software. Some of the new features in Version 5.6.0 include the 2012 HEC-18 (5<sup>th</sup> edition) methodologies related to bridge pressure flow contraction scour, pier scour influence zone, and NCHRP 24-20 abutment scour and guide bank scour. Other new features include HEC-1 HC card tool, rational method storage calculation, improvement to equilibrium slope estimation for long term scour, etc.

**Fee:**

A \$92 training fee per participant per workshop will be charged to cover the training cost. Training fees for participants from public agencies will be waived.

**When :**

<b>Workshop</b>	<b>Topics</b>	<b>Time</b>	<b>Date</b>
<b>No. 1</b>	<b>Hydrology and Storm Drainage Hydraulics</b>	8:30 a.m. - 4:30 p.m.	12/04/2018, Tuesday
<b>No. 2</b>	<b>River Mechanics</b>	8:30 a.m. - 4:30 p.m.	12/05/2018, Wednesday
<b>No. 3</b>	<b>Hydrology and Storm Drainage Hydraulics</b>	8:30 a.m. - 4:30 p.m.	12/11/2018, Tuesday
<b>No. 4</b>	<b>River Mechanics</b>	8:30 a.m. - 4:30 p.m.	12/12/2018, Wednesday

**Where:**

**Maricopa County Department of Transportation (MCDOT) Computer Training Room**  
2919 W Durango St, Phoenix Arizona 85009  
(South side of MCDOT Traffic Operation Building; see Maps below)

**Instructors:**

The workshop will be conducted by Mr. Kenneth Lewis, P.E., of KVL Consultants, Inc. of Scottsdale, Arizona. Mr. Lewis is the President of KVL Consultants, Inc., a firm specializing in Storm Water and Flood Control Master Planning and in developing computer applications for GIS/System modeling integration. Before establishing his firm in 1994, Mr. Lewis served as Director of GIS for Boyle Engineering Corporation in the US; Manager of Planning for Europe, the Middle East and Africa for Ingersoll Rand Company in London, UK; Manager, Malaysia for Sinclair Knight Consulting Engineers, in Kuala Lumpur, Malaysia and

Project Engineer for Sinclair Knight Consulting Engineers in Sydney, Australia. Mr. Lewis is the developer of the DDMSW program. The river mechanics fundamentals will be taught by Mr. Carlos Carriaga, Ph.D., PE, CFM and Mr. Bing Zhao, Ph.D., P.E., Engineering Application Development and River Mechanics Branch, Engineering Division, Flood Control District of Maricopa County.

### Registration and Payment:

Seating is limited for these workshops. Registrations will be on a “first come, first served” basis. To register, please contact Ms. Mona Merkevicus by email ONLY at [mrm@mail.maricopa.gov](mailto:mrm@mail.maricopa.gov) to reserve a seat. To make a payment, please contact the District’s Front Desk at (602) 506-1501. **The final registration and payment deadline is November 27, 2018.**

Payments shall be made through credit cards (Visa, Master, American Express, Discover), cash, or checks payable to “Flood Control District of Maricopa County. Please make a note on the check to include the following information: “DDMSW training”, attendee’s name, and training date. When calling the Front Desk for the payment, please indicate that the payment is for “DDMSW training” and provide the attendee’s name, training date, company name, and phone number. **Payments must be made by November 27, 2018 deadline.** If payments are not received, the reserved seats will be cancelled.

Only one attendee from each company or agency will be allowed to attend the workshop. However, a company/agency can send one person to attend both the “Hydrology and Storm Drainage Hydraulics” and “River Mechanic” workshops or send two persons to attend these two workshops separately. If more people from one company want to attend the workshop, they can be added to the waiting list. **Each workshop carries six hours of Continuing Education Credits (CEC).**

Please register as soon as possible. Once the deadline is passed and if there are any available seats left, FCDMC will open these seats to those on the waiting list.

### Cancellation Policy:

A full refund of the training fee can only be honored if a cancellation email is received two (2) business days before the specific workshop session starts. The cancellation email must be sent to Ms. Mona Merkevicus at [mrm@mail.maricopa.gov](mailto:mrm@mail.maricopa.gov).

### For Technical Questions:

Please contact:

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Bing Zhao, Ph.D., P.E.  
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Engineering Application Development and River Mechanics Branch  
Engineering Division, FCDMC  
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## New DDMSW Features and Capabilities:

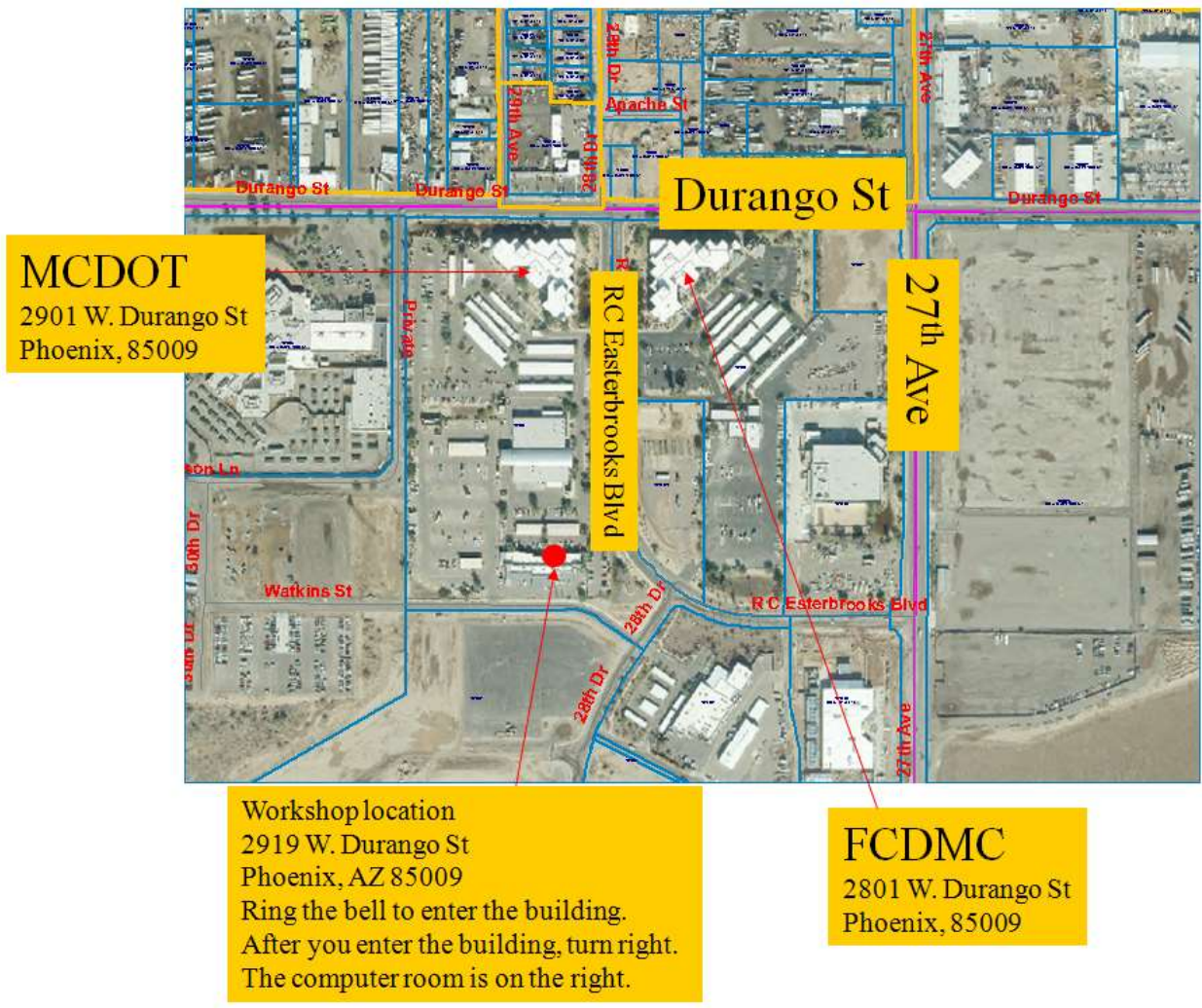
### Hydrology:

- Allows users to run two different versions of DDMSW simultaneously
- Integrated “HEC-1 HC Card Cumulative Area Tool” into DDMSW
- Included NSTPS in routing report
- Shows zero values in storage facilities form and report
- Includes volume in the hydrology summary from Rational Method analysis
- Includes Time to Peak in hydrology summary results and report for HEC-1
- Distinguish lines for Envelope curves and symbol for diversion
- Modified various labels and mouse tips
- Storage facilities form upgraded
- Fixed numeric overflow error with channel hydraulics computation
- Added new land use codes for HEC-1 and Rational Method

### River Mechanics:

- Modified labels on Long Term tab of Total Scour form
- Modified labels on Local Scour tab for Grade Control Structure
- Values on bed form tab updated
- Hydraulic calculations in River Mechanics for rectangular cross section updated
- Equilibrium slope long term scour calculation updated
- Modified various labels and mouse tips
- Local scour for Abutment method updated
- Guide Bank local scour updated
- 2012 HEC-18 (5<sup>th</sup> Edition) Implementation – Pressure Flow Scour
- 2012 HEC-18 (5<sup>th</sup> Edition) Implementation – Pier Scour Influence Zone
- 2012 HEC-18 (5<sup>th</sup> Edition) Implementation – NCHRP 24-20 Abutment Scour
- 2012 HEC-18 (5<sup>th</sup> Edition) Implementation – NCHRP 24-20 Guide Bank Scour
- Local scour selection label updated
- Riprap thickness calculation updated
- Fixed error with bedload parameters
- Fixed error with contraction scour along with Neil’s equation

## Training Venue (Red dot below)



# Training Venue (Red dot below)



## Lunch Places near the Workshop

