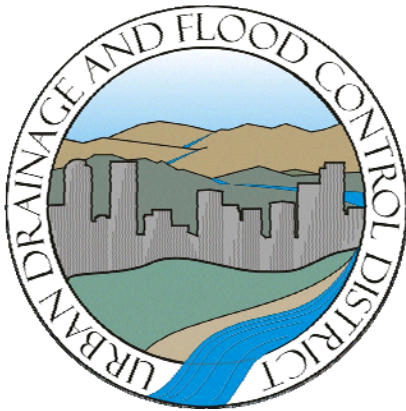


# Adventures in Construction Observation

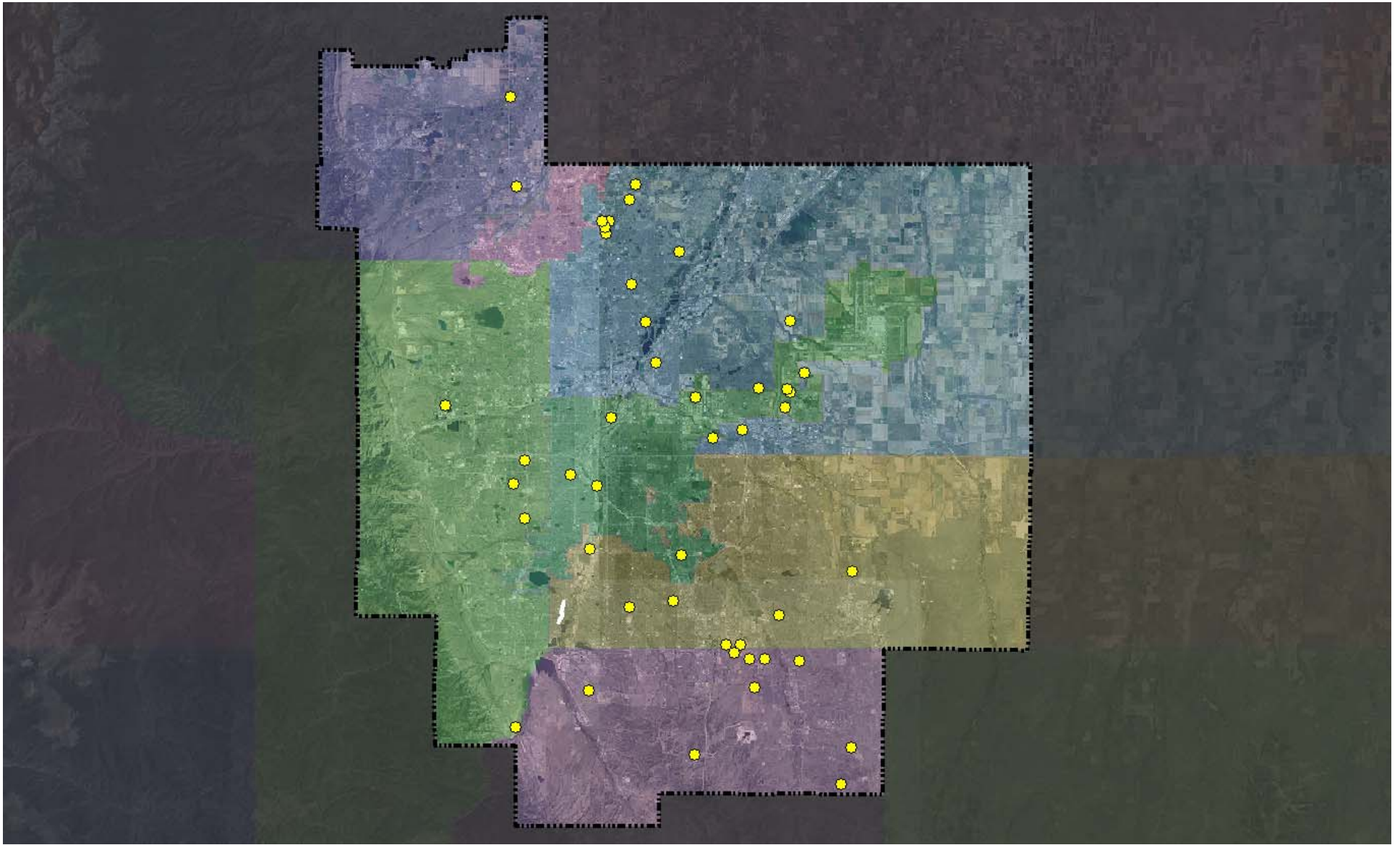
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# MEP Construction Observation





# Typical MEP Projects

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# Typical MEP Projects

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# Typical MEP Projects

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# Typical MEP Projects





# Water Control

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- Purpose: Protect improvements; prevent erosion and sediment transport; permit compliance
- Various methods: Structural or pumping
- Well points and sumps for nuisance flows and seepage
- Requires engineering design and knowledge of the watershed: Ag ditch releases, fire hydrant flushing, USACE releases.

# Sheet Pile

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# Diversion Channels

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# Other Diversions

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# Other Diversions





# Other Diversions





# Other Methods

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# Unlined Diversion Channels

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# Unlined Diversion Channels

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# Typical Hydraulic Structures

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- Check Structures – Delaying mechanism Not used for overbank stabilization. Typically sheet pile, concrete, occasional boulders, riprap.
- Drop Structures – Used to create a stable longitudinal channel section. Can take many forms.
- Outfall structures – convey flow to the stream while prevent scouring, upslope headcutting, etc.
- Other: Stilling basins, energy dissipaters, etc.



# Check Structures





# Drop Structures





# Check Structure Failures

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# Check Failures

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# Trying to get ahead of the curve!





# Structural Failure

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# Check replaced by Drops

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# Drop Structures





# Piping Failures





# Drop Structures: Subgrade

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# Drop Structures: Subgrade





# Crest Cutoffs

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# Sheet Pile Cutoffs

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# Drop Structures: Rejects

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# Water Control (Again)

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# Perimeter Cutoffs

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# Grouted Boulder Rundowns

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# Inadequate Well/Sump Point





# Grouting





# Good Grouting

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# Storm Sewer Outfalls & Rundowns

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# Storm Sewer Outfalls & Rundowns

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# Temporary Sediment Basins

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# Things that make you go “Hmmm”





# Innovative Thinking (?)



Protecting People, Property, & the  
Environment



# Seedbed Preparation

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# Phasing

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# Seeding





# ECB Stakes

