

# **2014 AASHTO Stormwater Practitioners Meeting**

## **EPA Audit Experience & Lessons Learned**

Jerry Chaney, Utah DOT

# UDOT's Audit Experience

---

## Notification of Joint EPA/DWQ Audit of UDOT:

- Email to UDOT May 21, 2013
  - Audit held June 17-21, 2013
- List of 54 questions received by email May 22, 2013
  - 3 ½ weeks to collect and produce requested documentation
  - Documents to be available at the Audit
- Audit team: 2 EPA staff and 5 State Division of Water Quality (DWQ) staff



# UDOT's Audit Experience

---

## Documents Requested by EPA – Major Topics:

- Program Management/Monitoring

- Organization of UDOT
- Personnel responsible
- Regulatory mechanisms for legal authority
- Policies related to non-storm water discharges
- Monitoring plans for wet/dry weather screening



- Six Required Control Measures outlined in the SWMP

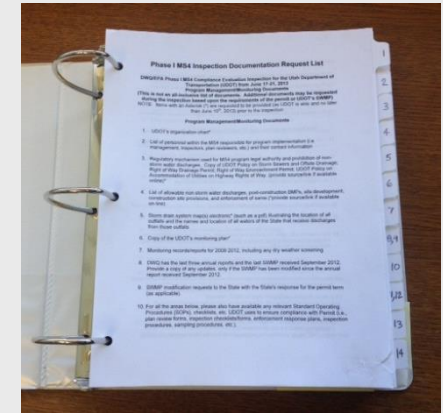
- Questions for each control measure

# UDOT's Audit Experience

## Managing Documents Collected:

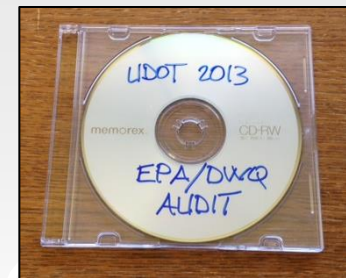
- Hard Copies

- Full 3 inch binder, double sided
- 1 copy provided to audit team
- 1 copy for our records



- CDs

- 1 CD for each audit team member
- 1 CD for our records



# UDOT's Audit Experience

---

- Monday

- Program Overview by UDOT
- Construction Site Storm Water Mgt.
- Post Construction Controls



- Tuesday

- IDDE & Dry Weather Screening
- MS4 Pollution Prev./Good housekeeping
- Wet Weather Monitoring



- Wednesday & Thursday – Field Visits

- Friday – Close Out Meeting

# UDOT's Audit Experience

---

- How Did We Do?

- EPA: “We can’t say; it will be in the report”.
- EPA’s Final Report still being prepared



- EPA May Ask Follow-up Questions

- March 2014: EPA sent additional questions to UDOT Regions.
- Questions were similar to the Audit but were directed to each Region.

# Lessons Learned

---

- Review your MS4 Permit often!
- Ensure that you and Permit regulators have a shared understanding of Permit language and Audit questions.
- Document compliance with your Permit
  - Especially your strengths!
- Provide evidence of oversight/enforcement.
- Store site inspection reports electronically.
  - Know where to find them!



# Lessons Learned

---

- Pay attention to the “little things”
  - Schedule the meeting rooms when you receive the Audit agenda
  - Schedule adequate time for staff to prepare and participate
  - Provide adequate notice to field staff regarding site visits
  - Tell everyone to relax!
- DOT staff should accompany the Audit team on project site visits.

*“The best way out is always through”* – Robert Frost



# **EPA Audit Preparation**

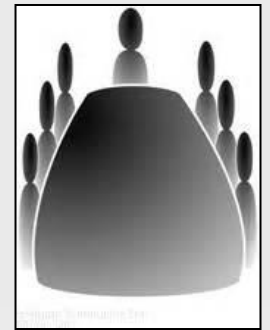
## **Tools & Techniques**

Jerry Chaney, Utah DOT

# Audit Preparation - Tools & Techniques

---

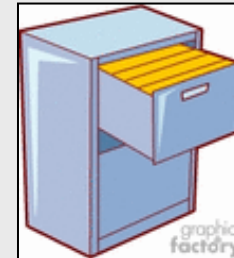
- Not yet received an Audit notice?
  - Review EPA questions from previously audited DOTs
    - How would your DOT respond?
    - Be ready!
  
- Received your Audit notice?
  - Meet with your staff and develop:
    - A plan describing who will be involved in developing responses to questions (share the fun!)
    - A schedule with milestone dates “begin with the end in mind”
    - A schedule of “check-in” meetings and progress reports



# Audit Preparation - Tools & Techniques

---

- Review EPA's list of requested documents:
  - Your existing documents may already address EPA's questions:
    - Manuals of Instruction (MOIs) – Extract applicable sections
    - Design, construction and maintenance processes/procedures
    - DOT Policies and Permits
    - Stormwater Management Plans
    - Spill Response Plans
    - Stormwater Pollution Prevention Plans
    - Inspection records – Construction sites and maintenance stations
    - Enforcement actions taken by the DOT :
      - Construction site erosion/sediment control issues
      - Discovery and elimination of illicit discharges



# Audit Preparation - Tools & Techniques

---

- Document management systems and databases help in collecting and compiling information.
- During the Audit, show examples of how information is stored and shared.
  - SWPPP documents
  - Construction site inspection reports
  - Maintenance activities
  - GIS Programs
    - Storm Drain Systems
    - Post construction controls



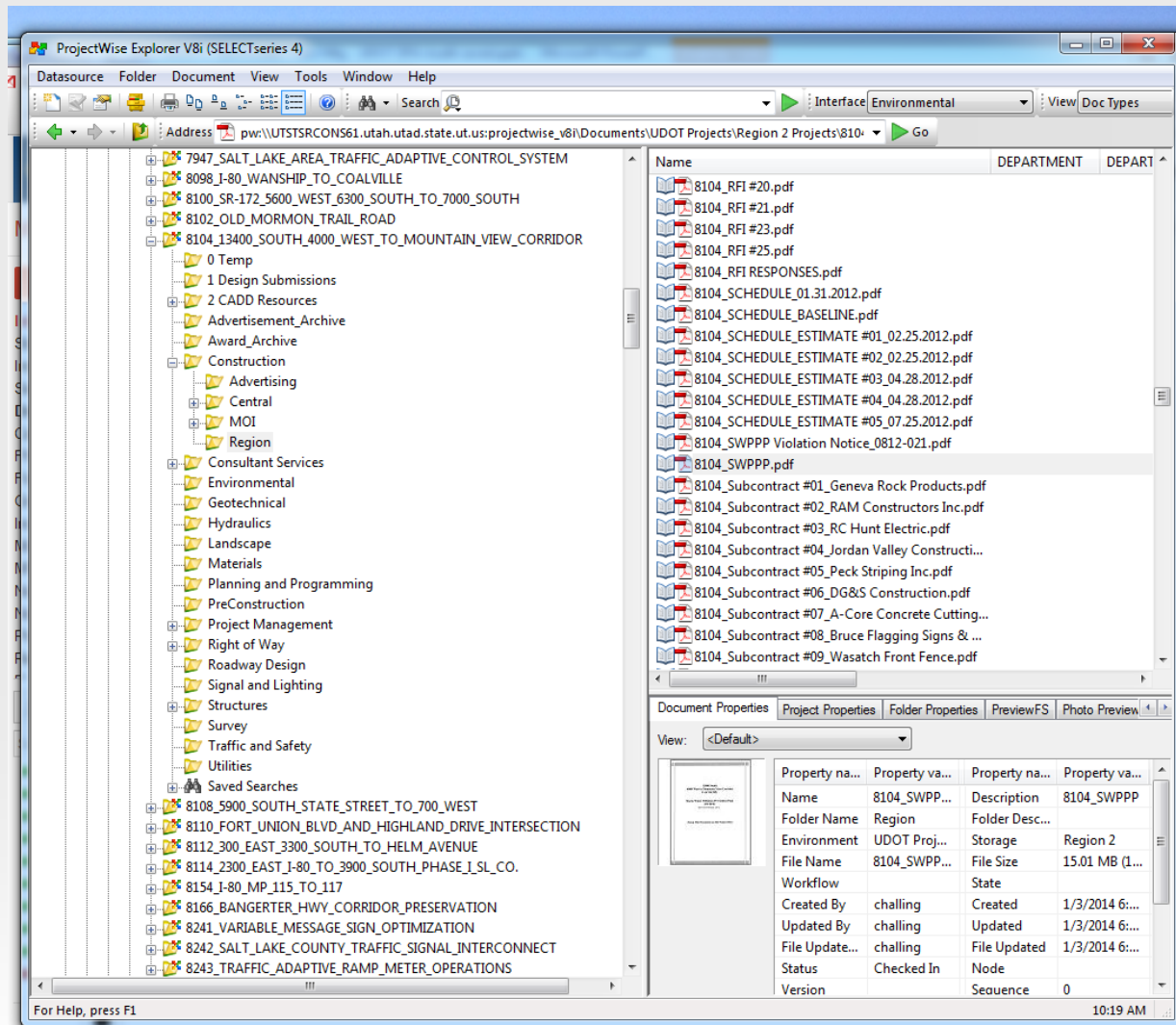
# Audit Preparation - Tools & Techniques

---

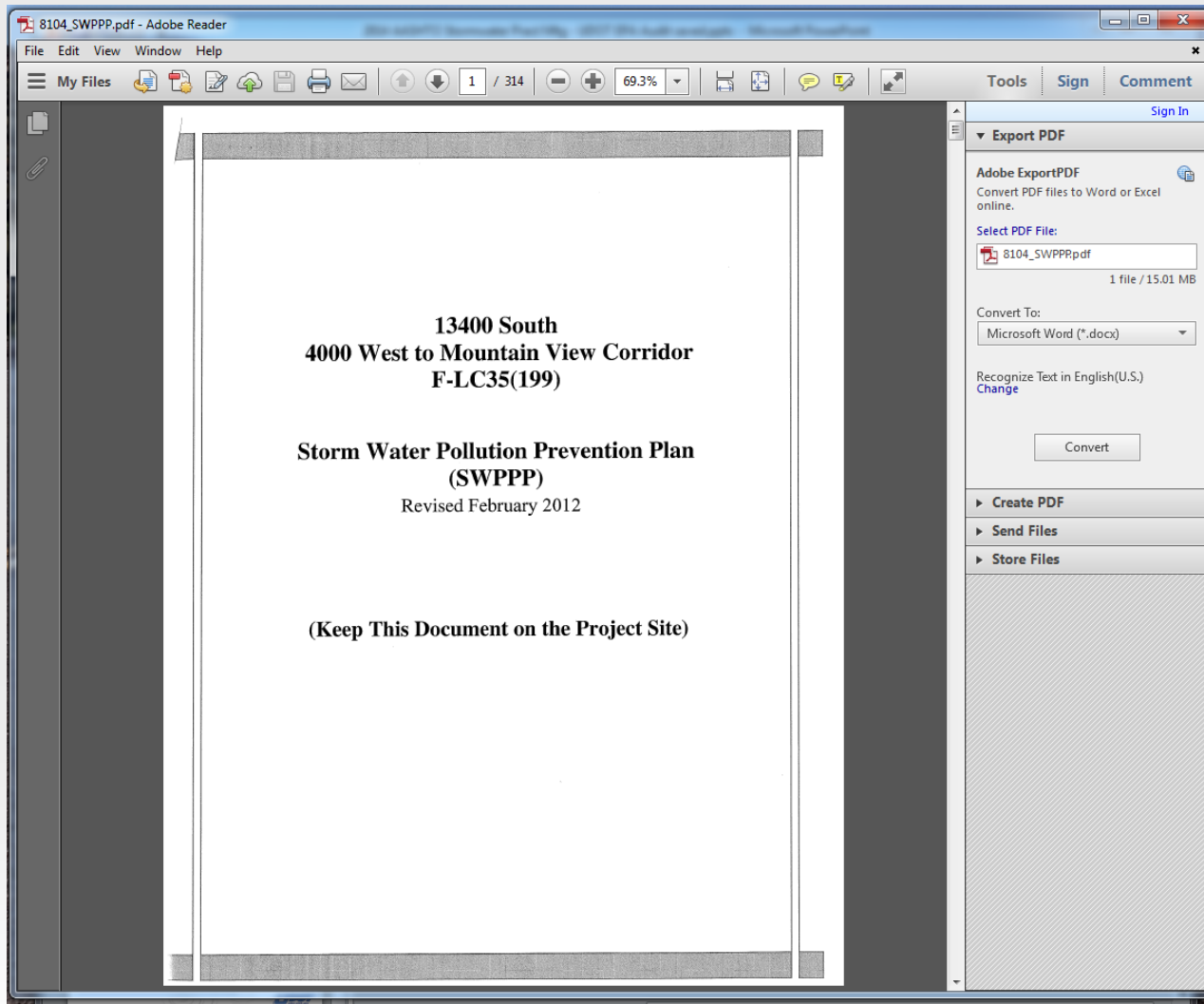
Prepare “show and tell” examples for the Audit:

- “ProjectWise” Document Management System
  - Used for storing project documentation including:
    - CADD files
    - Advertised plans and specifications
    - Approved environmental studies/mitigation commitments
    - Applicable Permits/SWPPP documents
    - Construction site inspection reports and corrective actions

# ProjectWise Document Management System



# Project SWPPP Document



# Weekly Inspection Reports & Corrective Actions

8104\_SWPPP.pdf - Adobe Reader

File Edit View Window Help

My Files 233 / 314 66.7%

Tools Sign Comment

Sign In

▼ Export PDF

Adobe ExportPDF  
Convert PDF files to Word or Excel online.

Select PDF File:  
8104\_SWPPP.pdf 1 file / 15.01 MB

Convert To:  
Microsoft Word (\*.docx)

Recognize Text in English(U.S.)  
[Change](#)

Convert

► Create PDF  
► Send Files  
► Store Files

TEA group  
Transportation Engineering Alliance

ENVIRONMENTAL INSPECTION REPORT

Inspector's Name: Don Baffensen  
Date: 10/23/2012  
Project #: F-1C35(199) 13400 S. 4200 Mt. to Mountain View Corridor  
Inspection Type: Weekly Rain Event Other:  
Weather Conditions: Rain

CONTROL CODES

B = Berm	EV = Equipment/Vehicle Wash Down Area	SD = Slope Drain
BL = Big Log	GD = Gravel Check Dam	SC = Stabilized Construction Entrance
BB = Brush Barrier	MS = Material Storage	SLD = Stone Lined Ditch
CL = Channel Liner	M = Mulching	SBB = Straw Bale Barrier
D = Dike	R = Riprap	SR = Surface Roughening
DIP = Drop Inlet Protection	PIP = Pipe Inlet Protection	ST = Sediment Trap
ECB = Erosion Control Blanket	SB = Silt Bag	WD = Waste Disposal
EF = Environmental Fence	SF = Silt Fence	WB = Water Bar

#	CONTROL CODE	STATIONING	DESCRIPTION
1	Gravel check dam	fill in pits on 4150 west section	
2	Drop inlet protection	Along N & S sides of 13400 south	
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

Overall Evaluation of Project - (Rank from 0 - 10)  
0 = Project In Non-Compliance - No Implemental Erosion Control  
5 = Project In Compliance - Needs Improvement  
10 = Project In Full Compliance - No Action Items Needed

Overall Project Ranking: 10

ACTION ITEMS: Wade's worth replaced damaged gravel check dam on 4150 west

Contractor's ECS Signature: \_\_\_\_\_  
Field Inspector's Signature: J. Pett

17.00 x 11.00 in

Viewing reports electronically is much easier than going through boxes of files!



# Audit Preparation - Tools & Techniques

---

“Show and tell” example:

- UDOT Operations Management System (OMS) Database
  - Used for documenting statewide maintenance activities:
    - Litter removal
    - Detention/retention pond maintenance
    - Street sweeping
    - Catch basin cleaning
    - Erosion repairs

# Operations Management System (OMS)

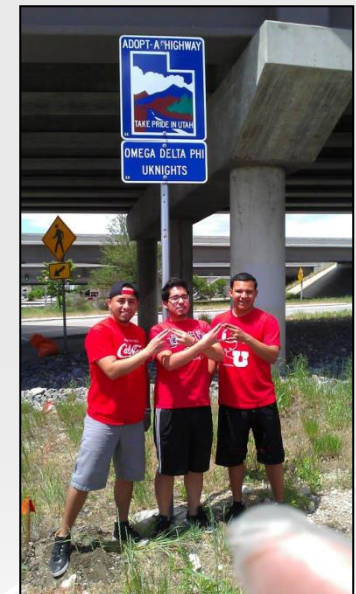
The screenshot displays the Operations Management System (OMS) interface. The main window shows the 'Roadway' tab with a 'Reports' sub-tab. A 'Setup Standard Report' dialog box is open, showing a list of columns and a 'Scope Select' dialog box. The 'Scope Select' dialog box is titled 'Scope Select' and contains a list of activities and their descriptions. The 'List of Columns' section shows a table with columns 'Item Name' and 'Item Scope Description'. The 'Scope Select' dialog box has a 'Select filter type: in list' dropdown and a list of activities with checkboxes. The activities include:

- 1A1 - SNOW AND ICE CONTROL
- 2A1 - AC SURFACE MAINTENANCE
- 2A2 - BITUMINOUS SEALS
- 2B1 - PCC SURFACE MAINTENANCE
- 3A1 - NON-HARD SURFACE (SHOULDERS)
- 3A2 - CURB AND GUTTER REPAIR
- 4A1 - ROADSIDE AND LITTER
  - 7M56 - CONTRACTUAL LITTER PICKUP (STD - Std)
  - 7M57 - CONTRACTUAL CARCASS REMOVAL (STD - Std)
  - 7S38 - ADOPT-A-HIGHWAY (LM - Litter Mile)
  - 7S39 - LITTER CONTROL (LM - Litter Mile)
  - 7S45 - SPOT LITTER & CARCASS REMOVAL (MHR - MHR)
- 4A2 - FENCE MAINTENANCE & REPAIR
- 4A3 - ROADSIDE ROCK REMOVAL
- 5A0 - CONTRACTUAL VEGETATION
- 5A1 - WEED CONTROL
- 5A2 - VEGETATION CONTROL
- 5A3 - VEGETATION MGMT MOWING
- 5A4 - VEGETATION MANAGEMENT
- 5B1 - ROADSIDE LANDSCAPE
- 6A1 - DRAINAGE DITCH + LANDSLIDES
  - 7D58 - DETENTION POND MAINTENANCE (EA - EA)
  - 7S46 - PAVED/CONCRETE DITCH MAINTENANCE (I - I)
  - 7S52 - CUT DITCH CLEAN AND RESHAPE (TML - 1/1)
  - 7S53 - CANYON CUT DITCH CLEANING (CUY - Cu Y)
  - 7S56 - OPEN SURFACE DRAINAGE MAINTENANCE
- 6A2 - DRAINAGE MAINTAIN INLETS
- 6B1 - DRAINAGE EROSION REPAIR

The 'Scope Select' dialog box also includes a 'Reset' button and 'Ok' and 'Cancel' buttons.

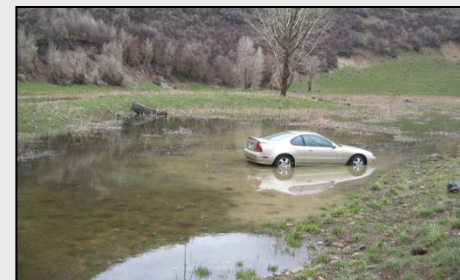
# Adopt-A-Highway Program

UDOT Adopt-A-Highway Program - 2014							
Administrative Unit	Amount	Activity	Labor Cost (\$)	WO Status	Completion Date	Date Updated	WO#
1436 - Logan	10.	7S38 - ADOPT.	\$152	Completed	6/17/2014	6/17/2014	338995
1437 - Laketown		7S38 - ADOPT-A-HIGHWAY		Active		6/17/2014	338976
1435 - Wellsville	4.	7S38 - ADOPT.	\$129	Completed	6/13/2014	6/13/2014	338664
4461 - Mt Pleasant	8.	7S38 - ADOPT.	\$240	Completed	6/12/2014	6/12/2014	338531
2435 - Silver Summit	2.	7S38 - ADOPT.	\$79	Completed	6/12/2014	6/12/2014	338465
1426 - Morgan		7S38 - ADOPT-A-HIGHWAY		Active		6/11/2014	338248
2424 - Salt Lake West	4.	7S38 - ADOPT.	\$352	Completed	6/5/2014	6/5/2014	337601
4453 - Moab	4.	7S38 - ADOPT.	\$104	Completed	6/5/2014	6/5/2014	337484
2435 - Silver Summit	4.	7S38 - ADOPT.	\$736	Completed	6/4/2014	6/4/2014	337298
1437 - Laketown	4.	7S38 - ADOPT.	\$143	Completed	6/5/2014	6/5/2014	337254
1425 - Huntsville	5.	7S38 - ADOPT.	\$598	Completed	6/9/2014	6/9/2014	337214
4468 - Junction	8.	7S38 - ADOPT.	\$291	Completed	6/6/2014	6/6/2014	337210
1433 - Riverside	10.	7S38 - ADOPT.	\$86	Completed	6/10/2014	6/10/2014	337196
2427 - Salt Lake South	40.	7S38 - ADOPT.	\$663	Completed	6/3/2014	6/3/2014	337147
1436 - Logan	20.	7S38 - ADOPT.	\$139	Completed	6/3/2014	6/3/2014	336879
1436 - Logan	6.	7S38 - ADOPT.	\$139	Completed	6/3/2014	6/3/2014	336864
1435 - Wellsville	6.	7S38 - ADOPT.	\$129	Completed	5/30/2014	5/30/2014	336726
4457 - Emery	15.	7S38 - ADOPT.	\$376	Completed	6/5/2014	6/5/2014	336717
2444 - Signs & Guardrail Crew		7S38 - ADOPT.	\$1,869	Completed	6/6/2014	6/6/2014	336701
4483 - Delta	7.	7S38 - ADOPT.	\$65	Completed	6/5/2014	6/5/2014	336531
1437 - Laketown	4.	7S38 - ADOPT.	\$259	Completed	6/2/2014	6/2/2014	336370
2437 - Kamas	4.	7S38 - ADOPT.	\$234	Completed	5/27/2014	5/27/2014	336256
2435 - Silver Summit	2.	7S38 - ADOPT.	\$233	Completed	5/23/2014	5/23/2014	336127
1435 - Wellsville	4.	7S38 - ADOPT.	\$129	Completed	5/23/2014	5/23/2014	336102
1425 - Huntsville	2.	7S38 - ADOPT.	\$120	Completed	5/27/2014	5/27/2014	336077
2424 - Salt Lake West	4.	7S38 - ADOPT.	\$328	Completed	5/22/2014	5/22/2014	336047
3437 - Vernal	5.	7S38 - ADOPT.	\$265	Completed	5/22/2014	5/22/2014	335796
1433 - Riverside	9.5	7S38 - ADOPT.	\$215	Completed	5/23/2014	5/23/2014	335599
1422 - Ogden	2.	7S38 - ADOPT.	\$118	Completed	5/22/2014	5/22/2014	335550
4456 - Huntington	2.	7S38 - ADOPT.	\$525	Completed	5/27/2014	5/27/2014	335423
1437 - Laketown	4.	7S38 - ADOPT.	\$114	Completed	5/23/2014	5/23/2014	335354
1435 - Wellsville	4.	7S38 - ADOPT.	\$172	Completed	5/22/2014	5/22/2014	335322
1435 - Wellsville	4.	7S38 - ADOPT.	\$172	Completed	5/22/2014	5/22/2014	335309
1435 - Wellsville	3.	7S38 - ADOPT.	\$129	Completed	5/15/2014	5/15/2014	334802



# Detention Pond Maintenance

Detention Pond Maintenance - 2014							
Administrative Unit	Activity	Amount	Man Hour Used	Labor Cost (\$)	WO Status	Completion Date	Date Updated
2432 - Murray	7D58 - DETENTION POND	3.	40.	\$1,202	Completed	3/12/2014	3/12/2014
2431 - West Jordan	7D58 - DETENTION POND	2.	30.	\$1,002	Completed	1/29/2014	1/29/2014
1424 - Clearfield	7D58 - DETENTION POND	1.	20.	\$725	Completed	3/17/2014	3/17/2014
2431 - West Jordan	7D58 - DETENTION POND	4.	30.	\$932	Completed	2/12/2014	2/12/2014
1424 - Clearfield	7D58 - DETENTION POND	1.	44.	\$1,937	Completed	3/10/2014	3/10/2014
2424 - Salt Lake We	7D58 - DETENTION POND	13.	13.	\$616	Completed	1/7/2014	1/7/2014
2432 - Murray	7D58 - DETENTION POND	3.	28.	\$773	Completed	2/12/2014	2/12/2014
1424 - Clearfield	7D58 - DETENTION POND	1.	26.	\$1,116	Completed	3/10/2014	3/10/2014
2431 - West Jordan	7D58 - DETENTION POND	1.	40.	\$1,029	Completed	1/31/2014	1/31/2014
1424 - Clearfield	7D58 - DETENTION POND	1.	20.	\$725	Completed	3/17/2014	3/17/2014
1424 - Clearfield	7D58 - DETENTION POND	1.	34.	\$1,188	Completed	3/17/2014	3/17/2014
1424 - Clearfield	7D58 - DETENTION POND	1.	58.	\$2,111	Completed	3/17/2014	3/17/2014
1424 - Clearfield	7D58 - DETENTION POND	1.	2.	\$81	Completed	3/17/2014	3/17/2014
2432 - Murray	7D58 - DETENTION POND	3.	20.	\$689	Completed	5/1/2014	5/1/2014
2424 - Salt Lake We	7D58 - DETENTION POND	6.	76.	\$2,640	Completed	2/1/2014	2/1/2014
2431 - West Jordan	7D58 - DETENTION POND	1.	40.	\$1,332	Completed	1/30/2014	1/30/2014
1431 - Snowville	7D58 - DETENTION POND	2.	40.	\$1,222	Completed	5/12/2014	5/12/2014
2430 - Salt Lake Cer	7D58 - DETENTION POND	1.	15.	\$487	Completed	3/6/2014	3/6/2014
2432 - Murray	7D58 - DETENTION POND	1.	3.	\$97	Completed	3/27/2014	3/27/2014
4467 - Hanksville	7D58 - DETENTION POND MAINTENAN	.	.	\$0	Completed	3/10/2014	3/10/2014
2432 - Murray	7D58 - DETENTION POND	3.	10.	\$255	Completed	4/28/2014	4/28/2014
2432 - Murray	7D58 - DETENTION POND	1.	30.	\$911	Completed	3/11/2014	3/11/2014
2431 - West Jordan	7D58 - DETENTION POND	3.	17.	\$461	Completed	2/12/2014	2/12/2014
2431 - West Jordan	7D58 - DETENTION POND	1.	12.	\$286	Completed	1/29/2014	1/29/2014
2431 - West Jordan	7D58 - DETENTION POND	1.	18.	\$429	Completed	1/29/2014	1/29/2014
1424 - Clearfield	7D58 - DETENTION POND	1.	33.	\$923	Completed	3/25/2014	3/25/2014
2427 - Salt Lake Sou	7D58 - DETENTION POND	1.	3.	\$143	Completed	5/12/2014	5/12/2014
2427 - Salt Lake Sou	7D58 - DETENTION POND	2.	18.	\$814	Completed	5/15/2014	5/15/2014
2431 - West Jordan	7D58 - DETENTION POND	4.	20.	\$698	Completed	6/16/2014	6/16/2014
2435 - Silver Summit	7D58 - DETENTION POND	2.	29.	\$929	Completed	5/28/2014	5/28/2014
1433 - Riverside	7D58 - DETENTION POND MAINTENANCE (EA - EACH)				Active		6/18/2014
				\$25,752			





# UDOT “UPLAN” GIS Mapping Platform

Final “show  
and tell”  
example:

UDOT  
Statewide  
Culvert  
Map

