Statewide Stormwater & Erosion Control Study

Working Paper #4

Statewide Stormwater & Erosion Control Study

Project Prioritization Model Implementation Guidance

July 2020

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Contents

List of Tables

List of Figures

I. INTRODUCTION

The Arizona Department of Transportation (ADOT) expressed the need to conduct a planning study, the Statewide Stormwater Erosion & Control Study (SWSWECS), to identify and prioritize statewide stormwater management and erosion control needs delivered through processes linked to a data model that operates with a defined project prioritization framework; develop a model whose output will create a prioritized list of stormwater construction projects to be addressed on an annual program basis; and, ensure that the model is quantitative, comprehensive, replicable, and systematic to inform /augment stormwater management activities and compete in ADOT's annual Planning to Programming (P2P) process.

II. WORKING PAPER #4 PURPOSE

The purpose of *SWSWECS Working Paper #4 - Implementation Guidance,* is prepared with three primary objectives in mind:

1) To explain the rationale, inputs, analysis and methods utilized in the creation of the SWSWECS prioritization model.
2) Offer insight on how the prioritization model and other SWSWECS inputs will offer guidance on how ADOT stormwater projects in future years will compete annually in the ADOT P2P process.
3) Finally, this document will also provide some implementation guidance on how the SWSWRCS prioritization model tool itself can be updated and used in the programming of projects in future years.

A. ADOT Planning-to-Programming (P2P) Process

The ADOT P2P process is a performance-based process resulting in the development of ADOT's draft five-year facilities construction program. The P2P process is conducted annually by ADOT's Multimodal Planning Division (MPD) to prioritize all prospective statewide facility improvements, and the result is a statewide prioritized project list. Although stormwater and erosion control projects are not currently being evaluated through the P2P process, the purpose of ADOT's *SWSWECS Working Paper #4* is to explain the development of a project prioritization process exclusively for stormwater and erosion control projects to compete and integrate with other statewide prioritized projects in the P2P process.

Moving forward, as ADOT incorporates stormwater projects into the P2P process, projects derived from this study into the P2P process are intended to compete with other projects in the P2P "modernization" projects category across the state. Stormwater projects will not compete against other projects in the preservation or expansion category.

Stormwater projects identified in this study to include the ones that did not make the statewide top 20 have an opportunity to be bundled with other District pavement preservation or expansion projects (located at the same milepost) should they be separately identified and prioritized.

In future years moving forward, it is anticipated that ADOT Environmental will do an annual call for projects to the ADOT Districts. Projects may consist of stormwater projects already identified from this study, modified projects identified in this study, or newly introduced stormwater projects altogether. The ADOT Environmental Group will then inventory the stormwater project list, acquire additional background data on each project (relative to information needed to apply the evaluation criteria), put the information into the prioritization model tool, run the tool, evaluate each project using the evaluation criteria and weights, and rank each stormwater project statewide.

B. Purpose & Function of the Project Prioritization Model (PPM)

As part of ADOT's SWSWECS, a Project Prioritization Model (PPM) was developed to effectively evaluate and objectively and equitably rank the 52 statewide projects submitted and described in detail through the development of *SWSWECS Working Paper #1*. The objective of the SWSWECS PPM is to have the highest performing stormwater-based erosion and control projects compete with the other projects evaluated through ADOT's P2P Process – a performance-based project evaluation and prioritization.

Similar to ADOT's P2P processes, the SWSWECS PPM is complex and comprehensive, yet a straightforward excel-based model, which provides a method to sort the diverse set of projects in order of importance based on the set of predetermined criteria that were chosen to address the detrimental effects to the roadway system created by the negative effects of stormwater runoff. The PPM was calibrated to identify each individual project's relative importance by deriving a numerical value of priority for each project.

The Project Team has carefully crafted and applied the PPM that successfully addresses this project's statement of need to; 1) develop a model whose output will create a prioritized list of stormwater construction projects to be addressed on an annual program basis, and 2) ensure that model is quantitative, comprehensive, replicable and systematic to inform/augment stormwater management activities and compete in the annual ADOT P2P process.

The ADOT SWSWECS PPM consists of three elements that work together to construct an equation that calculates a resulting numerical score for each project. This process is illustrated in **Figure 1** below. The three elements of the PPM include:

1. **The Evaluating Criteria & Scoring Thresholds** which are the set of standards used to quantify the characteristics of a project from both quantitative and qualitative measures;
2. **The Evaluation Criteria Weighting** which is a numerical value assigned to each evaluation criteria that signifies the level of importance of each criteria; and
3. **The Scoring Methodology** that is the framework around how the Evaluation Criteria, Scoring Thresholds, and the Evaluation Criteria Weighting work together to reach a calculated score.

Figure 1: SWSWECS PPM Process Flowchart

The Project Team worked incrementally with the Technical Advisory Committee (TAC) to develop each of these three elements of the SWSWECS PPM. The TAC reviewed and approved the set of evaluation criteria. The following sections of this report will describe how these three elements of the SWSWECS PPM were developed, calibrated, refined and finalized through a TAC consensus-based progression, which resulted in a prioritized list of statewide stormwater projects.

III. SWSWECS PPM EVALUATION CRITERIA

The Project Team, in tandem with the ADOT SWSWECS TAC, worked to develop a series of evaluation criteria and weighting to evaluate the 52 statewide projects as part of the SWSWECS PPM to prioritize the stormwater projects submitted by the seven ADOT Districts. The evaluation criteria were crafted to be diverse in nature through the combination of quantitative perspectives - pulling data and information from *Working Paper #1: Existing and Future Conditions* - as well as qualitive characteristics identifying specific features of the projects that impact their importance, and impact to ADOT assets in the right-of-way and adjacent properties.

Refer to *Working Paper #2: Statewide Stormwater & Erosion Control Project Prioritization Model Process & Findings* for more detail on the development of the SWSWECS PPM Evaluation Criteria.

Table 1 illustrates the application of the ADOT District survey results and application of the weighting to each of the 12 evaluation criteria.

Table 1: Final Set of 12 SWSWECS PPM Evaluation Criteria and Weighting

Category		Evaluation Criteria	Scoring Threshold	Score	Weight
Protect Public Health/Safety of Adjacent Property	1	Project eliminates or reduces flooding or property damage of adjacent property.	Yes	Positive Score (13.21)	**13.21**
			No	Neutral Score (0)	
	2	Existing frequency in which stormwater causes roadway closures and/or restrictions.	Yes	Positive Score (16.71)	**16.71**
			No	Neutral Score (0)	
Environmental Benefits/ Regulatory Mandates	3	Existing condition is located in proximity to Jurisdictional Water of the US (WOTUS).	< 1 mile	Positive Score (6.75)	**6.75**
			> 1 mile	Neutral Score (0)	
	4	Existing condition is located in proximity to Impaired and/or Outstanding Arizona Waters.	< ¼ mile	Positive Score (7.13)	**7.13**
			> ¼ mile	Neutral Score (0)	
	5	Project location has a TMDL already in place.	Yes	Positive Score (5.25)	**5.25**
			No	Neutral Score (0)	
Economic/ Operational/ Asset Management Benefits	6	Is the project location located on an ADOT corridor of strategic significance as defined by a completed Corridor Profile Study?	Yes	Positive Score (6.00)	**6.00**
			No	Neutral Score (0)	
	7	Percentage of freight flow movement (T-Factor) reported on the ADOT corridor? *	>15%	Positive Score (5.25)	**5.25**
			10% - 15%	Partial Score (3.50)	
			5% - 10%	Partial Score (1.75)	
			<5%	Neutral Score (0)	
	8	Impact to the structural integrity of existing ADOT assets in the ROW.	Roadway	Positive Score (15.71)	**15.71**
			Side slopes	Partial Score (10.47)	
			Conveyance Channels, Catch Basin, Etc.	Partial Score (5.24)	
			None	Neutral Score (0)	
	9	Project is identified by the ADOT District as a priority.	Priority 1-3	Positive Score (9.25)	**9.25**
			Priority 4-6	Partial Score (6.17)	
			Priority 7+	Neutral Score (0)	
Implementation Complexity	10	Project can be completed entirely within the existing ADOT ROW.	Yes	Positive Score (6.25)	**6.25**
			No	Neutral Score (0)	
	11	Project is located within ADOT ROW or an easement upon public lands.	ADOT ROW	Positive Score (4.75)	**4.75**
			Public Easement	Neutral Score (0)	
	12	Opportunity to leverage financial partner participation.	Yes	Positive Score (3.75)	**3.75**
			No	Neutral Score (0)	

**Corresponds to ADOT P2P Modernization technical evaluation criteria*

A. Scoring Methodology

After the weights of the evaluation criteria were developed and confirmed by the TAC, the Project Team developed a scoring methodology to be used in SWSWECS PPM. The scoring methodology is the element of the PPM that measures each of the projects within the scoring threshold for each of the twelve (12) evaluation criteria.

For example, *Criterion 1: Project eliminates or reduces flooding or property damage of adjacent property*, has a positive impact or neutral impact whether a project will eliminate or reduce flooding or property damage as a result of implementation. The scoring methodology defines what the magnitude or measurement of the positive impact or neutral impact to be applied. **Table 2** below describes the scoring methodology developed and is also described in more detail below:

Table 2: The PPM Scoring Methodology

Scoring Threshold Result	Scoring Methodology
Positive Score	Full Weighted Points
Partial Positive Score*	One-half of the Weight Value Two-thirds of the Weight Value
Partial Positive Score*	One-third of the Weight Value
Neutral Score	Zero Points

**Partial scores applied only on an as needed basis.*

The scoring methodology uses the weighted value as the directly applied scoring value. The highest possible points are awarded the full weighted value while the lowest possible point value is zero points. As previously noted, some evaluation criteria contain more than two scoring thresholds, and a simple equation is applied in scoring methodology to arrive at a partial positive value stemming from the weighted value. For instance, evaluation criteria with two thresholds arrive at the partial positive score by using half of the weighted score; while the evaluation criteria with four thresholds use two-thirds and one-third of the weighted value to arrive at the two partial positive scores.

B. Score vs. Result

Within the SWSWECS PPM, there are two values associated with each project, and it is important to understand the difference between the two values. The two values include a project's "result" and a project's "score".

A project's result is the element of a project that falls within the scoring threshold, while a project's score is the numerical value assigned to the project to calculate the prioritized rank.

For instance, *Criterion 1: Project eliminates or reduces flooding or property damage of adjacent property*, is a yes-or-no question and the condition (yes or no) of the project eliminating or reducing flooding/property damage to adjacent property is the project's result. The project's score then is derived from the project's result and the scoring threshold for that evaluation criterion.

IV. SWSWECS PPM IMPLEMENTATION GUIDANCE

This section provides an overview of the Excel-based tool used to construct the SWSWECS PPM, as well as implementation guidance on how to properly score a project and update the SWSWECS PPM when ADOT will conduct this process is future years moving forward after the completion of this project.

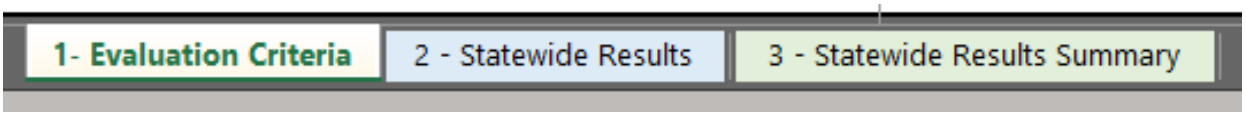
A. Understanding the Interface of the SWSWECS PPM

The SWSWECS PPM excel file contains the three following tabs:

1. Evaluation Criteria
2. Statewide Results
3. Statewide Results Summary

Each tab has a specific function and role within the PPM. To access each worksheet, click the corresponding tab at the bottom of the screen as shown in **Figure 2** below:

Figure 2: SWSWECS PPM Tabs



The following three subsections will describe the functionality and purpose of each tab within the SWSWECS PPM.

Tab 1 - Evaluation Criteria

The Evaluation Criteria tab (1 – Evaluation Criteria) showcases the SWSWECS PPM Evaluation Criteria described in *Section III – SWSWECS PPM Evaluation Criteria* of this report. This tab also includes the results from the TAC Evaluation Criteria Weighting Survey. The results of the TAC Evaluation Criteria Survey are highlighted in column J though column R with the Average Weight denoted in column S. The average value from the TAC survey is then used as the Weight for each Evaluation Criteria (column G). Refer to **Figure 3** on the following two pages for a visual representation of the Evaluation Criteria Tab.

If the weighting of the evaluation criteria would like to be updated/modified by ADOT in the future to reflect a shift in preferences or priorities, the results of the TAC Evaluation Criteria Weighting Survey can be changed to calculate a new weight for each of the Evaluation Criteria. Please note that this corresponding change would need to also be reflected in the following Tab.

Figure 3: SWSWECS PPM Tab 1 - Evaluation Criteria

Revised Evaluation Criteria - March 2020

Category		Criteria	Scoring Thresholds	Score	Weight (TBD by TAC Survey)
Protect Public Health/Safety of Adjacent Property	1	Project eliminates or reduces flooding or property damage of adjacent property.	Yes	Positive Impact	13.21
			No	Neutral Impact	
	2	The stormwater issue(s) cause roadway closures and/or restrictions.	Yes	Positive Impact	16.71
			No	Neutral Impact	
Environmental Benefits/ Regulatory Mandates	3	Existing condition is located in proximity to Jurisdictional Water of the US (WOTUS).	1 mile or less	Positive Impact	6.75
			More than 1 mile	Neutral Impact	
	4	Existing condition is located in proximity to Impaired and/or Outstanding Arizona Waters.	¼ mile or less	Positive Impact	7.13
			More than ¼ mile	Neutral Impact	
	5	Project location has a TMDL already in place.	Yes	Positive Impact	5.25
			No	Neutral Impact	
Economic/ Operational/ Asset Management Benefits	6	Is the project location located on an ADOT corridor of strategic significance as defined by a completed Corridor Profile Study?	Yes	Positive Impact	6.00
			No	Neutral Impact	
	7	Percentage of freight flow movement (T-Factor) reported on the ADOT corridor? *	T-Factor > 15%	Positive Impact (ex:+3)	5.25
			T-Factor 10%-15%	Positive Impact (ex: +2)	
			T-Factor 5 - 10%	Positive Impact (ex: +1)	
			T-Factor <5%	Neutral Impact (ex. +0)	
	8	Impact to the structural integrity of existing ADOT assets in the ROW.	Roadway,	3/3 = Positive Impact (ex: +3)	15.71
			Side Slopes, and	2/3 = Positive Impact (ex: +2)	
			Conveyance channels, catch basin or similar	1/3 = Positive Impact (ex. +1)	
			None	0/3 = Neutral Impact (ex. +0)	
	9	Project is identified by the ADOT District as a priority.	Priority 1-3	Positive Impact (ex:+3)	9.25
			Priority 4-6	Positive Impact (ex: +2)	
			Priority 7+	Neutral Impact (ex. +0)	
Implementation Complexity	10	Project can be completed entirely within the existing ADOT ROW.	Yes	Positive Impact	6.25
			No	Neutral Impact	
	11	Project is located within ADOT ROW or an easement upon public lands.	ADOT Right-of-Way	Positive Impact	4.75
			Public Easement	Neutral Impact	
	12	Opportunity to leverage financial partner participation.	Yes	Positive Impact	3.75
			No	Neutral Impact	
				TOTAL VALUE	100.00

Notes:
*Corresponds to ADOT P2P Modernization technical evaluation criteria

J	K	L	M	N	O	P	Q	R	S

ADOT SWSWECS TAC
Evaluation Criteria Weighting Results

Northcentral District	Northeast District	Northwest District	Central District	Southcentral District	Southeast District	Southwest District	ADOT Environmental	ADOT MPD	Average Score
20.67	13.67	0	8.67	14.33	13.33	13.33	8.33	13.333	13.21
17.67	15.67	0	10.67	11.33	13.33	13.33	33.33	18.333	16.71
4	2	0	6	8	6	8	10	10	6.75
6	3	0	6	7	5	10	10	10	7.13
5	1	0	6	6	7	7	5	5	5.25
8	7	0	8	9	8	5	0	3	6.00
7	5	0	9	4	7	5	0	5	5.25
13.67	19.67	0.00	12.67	14.33	13.33	8.33	33.33	10.33	15.71
12	13	0	10	10	9	10	0	10	9.25
2	7	0	8	7	8	10	0	8	6.25
1	9	0	8	4	6	5	0	5	4.75
3	4	0	7	5	4	5	0	2	3.75
100.00	100.00	0.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Tab 2 - Statewide Results

The Statewide Results tab (2 – Statewide Results) is the element of the SWSWECS PPM that contains the most information as the scores of each project are calculated within this tab. Depending on a project's result for any given evaluation criteria, that project receives a score based on the scoring methodology described *Section IIIA – Scoring Methodology* of this report. The scores for each Evaluation Criteria are summed together to calculate a final score used in ranking the projects. Refer to **Figure 4** on the following two pages for a visual representation of the Statewide Results tab.

Information describing the location and general nature of each individual project is included in column A through column F (on the left). The projects are categorized by district in ascending order based on the Project ID. For example, NED – A, NED – B, NED – C, etc. The Evaluation Criteria are listed at the top of the page in columns G through column AD, and the tab is set up to allow the Evaluation Criteria to remain visible as you scroll down the entire list of the projects. The result and the score (see *Section IIIB – Score vs. Result* of this report for the difference between the two) of a project for each Evaluation Criteria are listed together. Depending on the result of a project for a given Evaluation Criteria, that project would receive the full weighted points, partial weighted points, or no points for that Evaluation Criteria. More detail on how to arrive at the score of each Evaluation Criteria is provided in the following *Section B – Workflow to Complete Scoring of the SWSWECS PPM Evaluation Criteria.*

The final score for each project with the corresponding rank are listed in column AF and column AG. The Top 20 Projects (highest scoring) are highlighted in green utilizing the conditional formatting tool within Excel.

Figure 4: SWSWECS PPM Tab 2 - Statewide Results

Scoring Methodology
Positive Impact - Full Weighted Points
Positive Impact Partial Weighted Point (as needed)
Neutral Impact - No Points

						1		2		3		4		5		6		7		8		9		10		11		12			**#1 Scoring Methodology**	
						Project eliminates or reduces flooding or property damage of adjacent property.		The stormwater issue(s) cause roadway closures and/or restrictions.		Existing condition is located in proximity to Jurisdictional Water of the US (WOTUS).		Existing condition is located in proximity to Impaired and/or Outstanding Arizona Waters.		Project location has a TMDL already in place.		Project located on an ADOT corridor of strategic significance as defined by a completed Corridor Profile Study		Percentage of freight flow movement (T-Factor) reported on the ADOT corridor? *		Project would eliminate the negative impact to the structural integrity of existing ADOT assets in the ROW.		Project is identified by the ADOT District as a priority.		Project can be completed entirely within the existing ADOT ROW.		Project is located within ADOT ROW or an easement upon public lands.		Opportunity to leverage financial partner participation.			Positive Impact - Full Weighted Points Positive Impact Partial Weighted Point (as needed) Neutral Impact - No Points	
Project Information																														
District	**Project ID**	**Route**	**MP**	**Issue**	**Project Type**	**Result**	**Score**	**Result**	**Score**	**Result**	**Score**	**Result**	**Score**	**Result**	**Score**	**Result**	**Score**	**Result**	**Score**	**Result**	**Score**	**Result**	**Score**	**Result**	**Score**	**Result**	**Score**	**Result**	**Score**		**Sum**	**Rank**
NED	*NED - A*	*US 191*	*389.3*	*Area floods regularly and completely fills drainage.*	*Construction*	N	0	Y	16.71	0.068	6.75	>.25 mi, 32.716038	0	N	0	Y	6	21.3	5.25	Roadway Drainage Conveyance	15.71	2	9.25	N	0	Easement	0	No/Unknown	0		**59.67**	**15.5**
NED	*NED - B*	*US 160*	*420*	*Erosion threatening roadway.*	*Construction*	N	0	N	0	0.002	6.75	>.25 mi, 76.515546	0	N	0	Y	6	10.4	3.50	Roadway	15.71	1	9.25	N	0	Easement	0	Army Corp of Engineers-permitting	3.75		**44.96**	**29.5**
NED	*NED - C*	*US 160*	*380.7-363.6*	*PA for pipe erosion.*	*Construction*	N	0	N	0	0.051	6.75	>.25 mi, 44.88345	0	N	0	Y	6	10.7	3.50	Roadway Sideslopes	15.71	3	9.25	N	0	Easement	0	No/Unknown	0		**41.21**	**38**
NED	*NED - D*	*SR 264*	*447.3*	*Flooding issues of a local school track and field.*	*Construction*	Y	13.21	N	0	0.539	6.75	>.25 mi, 52.195729	0	N	0	N	0	9.6	1.75	Drainage Conveyance	5.24	4	6.17	N	0	Easement	0	No/Unknown	0		**33.11**	**44**
NED	*NED - E*	*SR 73*	*313*	*Slope erosion.*	*Construction*	N	0	N	0	1.879	0	>.25 mi, 18.883173	0	N	0	N	0	22.4	5.25	Roadway Sideslopes Drainage Conveyence	15.71	5	6.17	N	0	Easement	0	No/Unknown	0		**27.13**	**50**
NED	*NED - F*	*US 180*	*415.6-415.7*	*Stormwater erosion and roadway scour issues.*	*Construction*	N	0	Y	16.71	0.304	6.75	>.25 mi, 6.195787	0	Y	5.25	N	0	13.2	3.50	Roadway Drainage conveyance	15.71	6	6.17	N	0	Easement	0	No/Unknown	0		**54.09**	**21**
NED	*NED - G*	*US 160*	*373.3, 396*	*Severe deposition of material after each storm.*	*Construction*	N	0	Y	16.71	1.984	0	>.25 mi, 56.380869 ; >.25 mi, 43.608215	0	N	0	Y	6	10.5	3.50	Roadway Drainage conveyance	15.71	7	0.00	N	0	Easement	0	Black Mesa & Lake Powell Railroad	3.75		**45.67**	**28**
NED	*NED - H*	*US191*	*472*	*Significant down-cutting in ditch.*	*Construction*	N	0	N	0	1.381	0	>.25 mi, 95.33859	0	N	0	N	0	12	3.50	Sideslope	10.47	8	0.00	N	0	Easement	0	No/Unknown	0		**13.97**	**51.5**
NED	*NED - I*	*SR 264*	*417+/-*	*Severe erosion in cut ditches.*	*Construction*	N	0	N	0	1.445	0	>.25 mi, 55.044051	0	N	0	N	0	13.5	3.50	Sideslope	10.47	9	0.00	N	0	Easement	0	No/Unknown	0		**13.97**	**51.5**
NED	*NED - J*	*I-40*	*287 EB*	*Slow lane and onramp shoulders wash out.*	*Construction*	N, possibly City of Holbrook	0	Y	16.71	1.098	0	>.25 mi, 9.336357	0	N	0	Y	6	42.6	5.25	Roadway Drainage conveyance	15.71	10	0.00	Y	6.25	ROW	4.75	City of Holbrook	3.75		**58.42**	**17**
NED	*NED - K*	*SR 377*	*8,13,24*	*During large rain storms the water overtops the road requiring a traffic*	*Construction*	N	0	Y	16.71	0.128	6.75	>.25 mi, 11.78828	0	N	0	Y	6	13.3	3.50	Roadway Drainage conveyance	15.71	11	0.00	Y	6.25	ROW	4.75	No/Unknown	0		**59.67**	**15.5**
NCD	*NCD - B*	*US 89*	*506.3 & 507.3 (Tanner Wash)*	*Tanner Wash getting closer to US 89, potential for highway failure.*	*Construction*	N	0	N	0	0.019	6.75	>.25 mi, 30.239977	0	N	0	Y	6	15.1	5.25	Roadway Sideslopes	15.71	1	9.25	N	0	Easement	0	No/Unknown	0		**42.96**	**36**
NCD	*NCD - C*	*US 89A*	*556*	*Wash on the north side of US 89A at MP 556 is within 5-feet of highway.*	*Construction*	N	0	N	0	0.536	6.75	>.25 mi, 19.516837	0	N	0	N	0	17	3.50	Roadway Sideslopes	15.71	3	9.25	N	0	Easement	0	BLM	3.75		**38.96**	**40**
NCD	*NCD - D*	*SR 98*	*299*	*Pipes are 15 to 20-feet below grade at inlet causing highway to act as dam.*	*Construction*	N	0	N	0	1.981	0	>.25 mi, 2.537466	0	N	0	N	0	6.4	1.75	Roadway Sideslopes	15.71	5	6.17	N	0	Easement	0	Lachee Waste Water Treatment Plant (Source of damage), SRP Navajo Generating Station	3.75		**27.38**	**49**
NCD	*NCD - E*	*SR 87*	*239.5 (Hog Wash)*	*Private citizen dumps construction material upstream clogging culvert and causing sediment build-up*	*Construction*	N	0	N	0	0.023	6.75	>.25 mi, 3.918289	0	N	0	Y	6	14.2	3.50	Drainage conveyence	5.24	4	6.17	N	0	ROW	4.75	No/Unknown	0		**32.40**	**46**
NCD	*NCD - F*	*US 160*	*322-325 (Tuba City)*	*Flowing water and mud/debris overtops roadway.*	*Construction*	Y	13.21	Y	16.71	1.052	0	>.25 mi, 49.867534	0	N	0	Y	6	10.2	3.50	Roadway	15.71	6	6.17	N	0	Easement	0	Tuba City	3.75		**65.05**	**9**
NCD	*NCD - G*	*US 160*	*356*	*Pipe issues results in culvert plugged with sediment and flows overtop roadway.*	*Construction*	Y	13.21	Y	16.71	0.909	6.75	>.25 mi, 37.994034	0	N	0	Y	6	12.5	3.50	Roadway	15.71	7	0.00	N	0	Easement	0	Black Mesa & Lake Powell Railroad	3.75		**65.63**	**8**
NWD	*NWD - A*	*I-40*	*144.0 WB*	*Existing - Sediment clogging box culvert causing flows to overtop the roadway resulting in roadway closures and lane restrictions.* *Proposed – Flows from breach in berm of nearby drainage basin causing erosion and sedimentation of north slope and box culverts, resulting in roadway overtopping.*	*Construction*	N	0	Y	16.71	1.249	0	>.25 mi, 34.939794	0	N	0	Y	6	36.8	5.25	Roadway Sideslope	15.71	3	9.25	Y	6.25	ROW	4.75	BNSF;adjacent owner	3.75		**67.67**	**5**
NWD	*NWD - B*	*SR 95*	*165.3 - 165.4 SB/NB*	*The roadway is being compromised from the clogging of two culverts and overtopping of flows.*	*Construction*	N	0	N	0	0.733	6.75	>.25 mi, 11.294511	0	N	0	Y	6	11.8	3.50	Roadway Drianage Basin	15.71	2	9.25	N	0	Easement	0	ASLD lessee	3.75		**44.96**	**29.5**
NWD	*NWD - C*	*US 93*	*157.6 SB, Cotton Wood Canyon*	*There is no support for slope except the strength of rock underlying fill and overhanging the scoured section.*	*Construction*	N	0	N	0	0.069	6.75	>.25 mi, 14.068391	0	N	0	Y	6	23.9	5.25	Roadway Sideslopes	15.71	1	9.25	Y	6.25	ROW	4.75	No	0		**53.96**	**22**
NWD	*NWD - D*	*I-17*	*237, SE corner of NB Birdge over Moore's*	*Scour occurring along the abutment embankment of the corner of the*	*Construction*	N	0	N	0	0.096	6.75	>.25 mi, 5.265842	0	N	0	Y	6	13.4	3.50	Roadway Sideslope	15.71	4	9.25	Y	6.25	ROW	4.75	BLM	3.75		**55.96**	**20**
CD	*CD - A*	*SR 347*	*SR 238 to GRIC Boundary*	*Erosion, bank protection and/or curb and gutter needed.*	*Construction*	N	0	Y	16.71	0.357	6.75	>.25 mi, 33.893346	0	N	0	Y	6	9	1.75	Sideslopes	10.47	2	9.25	Y	6.25	ROW	4.75	City of Maricopa, GRIC	3.75		**65.68**	**7**
CD	*CD - B*	*I-10*	*163.9 - Queen Creek TI*	*Unstable slopes, extreme rutting and pole foundations exposed.*	*Construction*	N	0	N	0	2.005	0	>.25 mi, 34.37862	0	N	0	Y	6	12.7	3.50	Sideslopes	10.47	3	9.25	N	0	Easement	0	GRIC	3.75		**32.97**	**45**
CD	*CD - C*	*SR 238*	*24.00 – 44.24*	*Highway experiences frequent flooding at low points, often causing roadway closures.*	*Construction*	N	0	Y	16.71	0.061	6.75	>.25 mi, 23.406194	0	N	0	N	0	18.6	5.25	Roadway	15.71	1	9.25	N	0	ROW	4.75	UPRR, City of Maricopa, Marciopa County, Pinal County, GRIC, Ak-Chin Indian Community	3.75		**62.17**	**11**

Scoring Methodology
Positive Impact - Full Weighted Points
Positive Impact Partial Weighted Point (as needed)
Neutral Impact - No Points

Statewide Results

Top 20 Project

#1 Scoring Methodology
Positive Impact - Full Weighted Points
Positive Impact Partial Weighted Point (as needed)
Neutral Impact - No Points

						Protect Public Health/Safety of Adjacent				Environmental Benefits/ Regulatory Mandates						Economic/ Operational/ Asset Management Benefits						Implementation Complexity							
						1		2		3		4		5		6		7		8		9		10		11		12			
						Project eliminates or reduces flooding or property damage of adjacent property.		The stormwater issue(s) cause roadway closures and/or restrictions..		Existing condition is located in proximity to Jurisdictional Water of the US (WOTUS).		Existing condition is located in proximity to Impaired and/or Outstanding Arizona Waters.		Project location has a TMDL already in place.		Is the project location located on an ADOT corridor of strategic significance as defined by a completed Corridor Profile Study?		Percentage of freight flow movement (T-Factor) reported on the ADOT corridor? *		Project would eliminate the negative impact to the structural integrity of existing ADOT assets in the ROW.		Project is identified by the ADOT District as a priority.		Project can be completed entirely within the existing ADOT ROW.		Project is located within ADOT ROW or an easement upon public lands.		Opportunity to leverage financial partner participation.			
Project Information																													
District	Project ID	Route	MP	Issue	Project Type	Result	Score	Result	Score	Result	Score	Result	Score	Result	Score	Result	Score	Result	Score	Result	Score	Result	Score	Result	Score	Result	Score	Result	Score	Sum	Rank
SED	SED - A	US 60	229.2 to 229.45	Stormwater will not drain at bridge and overtops roadway resulting in erosion.	Construction	N	0	Y	16.71	0.031165	6.75	<.25 mi, 0.031165	7.13	No	0	Y	6	14	3.50	Roadway Side slopes	15.71	1	9.25	Yes	6.25	ROW	4.75	No	0	76.05	2
SED	SED - B	SR 288	289	Stormwater overtops roadway resulting in erosion.	Construction	N	0	N	0	0.259539	6.75	>.25 mi, 15.219602	0	No	0	N	0	12	3.50	Roadway Side slopes	15.71	5	6.17	Yes	6.25	ROW	4.75	No	0	43.13	35
SED	SED - C	US 70	380.46	Channel sedimentation, overtopping by railroad.	Construction	Y	13.21	Y	16.71	0.037141	6.75	>.25 mi, 0.453506	0	Yes	5.25	N	0	16	5.25	None	0.00	4	6.17	Yes	6.25	ROW	4.75	Eastern AZ RR	3.75	68.09	4
SED	SED - D	SR 186	343-350 & 358, Wilcox to Kansas Settlement	Low water crossings.	Construction	N	0	Y	16.71	0.69661	6.75	>.25 mi, 41.288873 ; >.25 mi, 45.927402	0	No	0	N	0	14.3	3.50	Roadway Side slopes	15.71	8	3.08	Yes	6.25	ROW	4.75	No	0	56.75	19
SED	SED - E	SR 181	51, 55 & 60	Low water crossings.	Construction	N	0	N	0	0.004621	6.75	>.25 mi, 42.049197	0	No	0	N	0	22.9	5.25	Roadway Side slopes	15.71	9	3.08	Yes	6.25	ROW	4.75	No	0	41.79	37
SED	SED - F	SR 266	210, Gillespie Wash	Outlet scour protection.	Construction	N	0	N	0	0.007368	6.75	>.25 mi, 24.430095	0	No	0	N	0	N/A	0.00	Sideslopes	10.47	10	3.08	Yes	6.25	ROW	4.75	No	0	31.31	47
SED	SED - G	US 60	262-263	Embankment flumes scoured out needing reconstruction.	Construction	N	0	N	0	0.572764	6.75	>.25 mi, 14.292765	0	No	0	N	0	11.5	3.50	Roadway Side slopes Drainage Conveyence	15.71	3	9.25	Yes	6.25	ROW	4.75	No	0	46.21	27
SED	SED - H	SR 177	166.7	Significant erosion on outlet side of 48-inch CMP.	Construction	N	0	N	0	0.030864	6.75	>.25 mi, 0.925003	0	No	0	N	0	14.2	3.50	Sideslopes	10.47	6	6.17	Yes	6.25	ROW	4.75	No	0	37.89	42
SED	SED - I	SR 288	265.3	Culvert restoration of undersized aged structure.	Construction	N	0	Y	16.71	0.055784	6.75	>.25 mi, 0.363126	0	Yes	5.25	N	0	12	3.50	Roadway Sideslopes	15.71	7	3.08	Yes	6.25	ROW	4.75	No	0	62.00	12
SED	SED - J	SR 88	220.2 - 229.2	Culvert restoration.	Construction	N	0	Y	16.71	0.010198	6.75	>.25 mi, 1.103794	0	No	0	N	0	6.3	1.75	Roadway Side slopes Drainage Conveyence	15.71	2	9.25	Yes	6.25	ROW	4.75	No	0	61.17	14
SCD	SCD - A	WB I-10-Frontage Rd. (Pomerene Rd & Ramsey Rd)	306 & 306.917 (Benson)	Sediment upstream and downstream needs to be removed. Standard maintenance equipment will not fit in the 5-foot high box culverts.	Construction	N	0	N	0	0.021647	6.75	>.25 mi, 4.355522	0	No	0	Y	6	N/A	0.00	Drainage conveyence	10.47	4	9.25	Yes	6.25	ROW	4.75	No	0	43.47	34
SCD	SCD - B	WB I-10	306.9 (Benson-San Pedro River Bridge)	Tanner Wash getting closer to US 89, potential for highway failure.	Construction	N	0	N	0	0.007757	6.75	>.25 mi, 4.712769	0	No	0	Y	6	36.6	5.25	Sideslope	10.47	5	4.63	Yes	6.25	ROW	4.75	No	0	44.10	33
SCD	SCD - C	SB SR 80	306.079 (St David)	Wash on the north side of US 89A at MP 556 is within 5-feet of highway.	Construction	N	0	N	0	1.157216	0	>.25 mi, 1.814357	0	No	0	N	0	14.2	3.50	Sideslope	15.71	3	9.25	Yes	6.25	ROW	4.75	No	0	39.46	39
SCD	SCD - D	SR 386	306.079 4.37, 6.05, 6.58, 7.5, 11.1 - Three Points	Pipes are 15 to 20-feet below grade at inlet causing highway to act as dam.	Construction	N	0	Y	16.71	0.130068	6.75	>.25 mi, 36.775173	0	No	0	N	0	8.8	1.75	Roadway Sideslopes Drainage conveyence	5.24	7	4.63	No	0	Easement	0	No	0	35.07	43
SCD	SCD - E	EB/WB I-10, Marsh Station Rd., UPRR, Ramps	289.41-291.70 (Marsh Station)	Scour slopes eroding.	Construction	N	0.00	N	0.00	0.097126	6.75	>.25 mi, 17.635848	0.00	No	0.00	Y	6.00	30	5.25	Sideslopes	5.24	8	0.00	Yes	6.25	ROW	4.75	UPRR	3.75	37.99	41
SCD	SCD - F	I-19	8.9-9.1 (Nogales)	Scour slopes eroding.	Construction	N	0	N	0	0.508964	6.75	>.25 mi, 1.249597	0	No	0	Y	6	7.2	1.76	Sideslopes	10.47	6	4.63	Yes	6.25	ROW	4.75	Santa Cruz County	3.75	44.36	32
SCD	SCD - G	SR 286	24.957	Roadway overtopping and sever erosion on NB side due to undersized CMP pipes at wash location.	Construction	N	0	Yes	16.71	0.006316	6.75	22.299846	0	No	0	No	0	19.9	5.25	Roadway Sideslopes	15.71	2	9.25	Yes	6.25	Easement	0	ASLD	3.75	63.67	10
SCD	SCD - H	SR 286	10.6	Considerable shoulder erosion and lateral migration of channel on downstream side of SR 286 crossing	Construction	N	0	Y	16.71	1.192953	0	16.437124	0	No	0	No	0	19.6	5.25	Roadway Sideslopes Drainage Conveyence	15.71	1	9.25	No	0	Easement	0	No	0	46.92	26
SWD	SWD - A	US 95 / SR 95	65.2, 66.5, 66.9, 69.3, 92.1, 92.5, 92.9, 110.8, & 112.5	Nine low water crossings causing pavement erosion.	Construction	N	0	Y	16.71	0.406967	6.75	>.25 mi, 32.173704 ; >.25 mi, 34.333588 ; >.25 mi, 36.125354 ; >.25 mi, 54.383958 ; >.25 mi, 40.035849	0	No	0	Yes	6	22.3	5.25	Roadway Drainage Conveyence	15.71	1	9.25	Yes	6.25	ROW	4.75	No	0	70.67	3
SWD	SWD - B	US 95	54-56	Stormwater run-off eroding shoulders.	Construction	Y	13.21	Y	16.71	0.02165	6.75	>.25 mi, 24.002241	0	No	0	Yes	6	26.5	5.25	Roadway Sideslopes Drainage Conveyence	15.71	2	9.25	Yes	6.25	ROW	4.75	No	0	83.88	1
SWD	SWD - C	I-8	WB 117.95	Flowing through box culvert flooding residential property.	Construction	Y	13.21	N	0	0.449959	6.75	>.25 mi, 21.348218	0	No	0	Yes	6	26.8	5.25	Sideslopes	10.47	3	9.25	Yes	6.25	ROW	4.75	No	0	61.93	13
SWD	SWD - D	Pacific Ave	Ave 2E Underpass Structure #1381	Stormwater flows damaging residential subdivision.	Construction	Y	13.21	N	0	0.331041	6.75	>.25 mi, 2.82549	0	No	0	Yes	6	N/A	0.00	Sideslopes	10.47	4	6.17	Yes	6.25	ROW	4.75	City of Yuma	3.75	57.35	18
SWD	SWD - E	US 95	Fortuna Wash	Stormwater flows erosion threatening flooding of adjacent properties.	Construction	Y	13.21	N	0	0.027682	6.75	>.25 mi, 10.91026	0	No	0	Yes	6	22.9	5.25	None	0.00	5	6.17	Yes	6.25	ROW	4.75	No/ASLD	0	48.38	24
SWD	SWD - F	US 95	69.83-70.04	Wash cutting into roadway during storm events causing pavement undermining.	Construction	N	0	Y	16.71	0.062545	6.75	>.25 mi, 36.762624	0	No	0	Yes	6	26.5	5.25	Roadway Sideslopes	15.71	6	6.17	Yes	6.25	ROW	4.75	No	0	67.59	6
SWD	SWD - G	I-10	31.5-32.5	Roadway overtopping occurs during large storm events.	Construction	N	0	N	0	2.579191	0	>.25 mi, 41.247334	0	No	0	Yes	6	41.7	5.25	Drainage Conveyence	5.24	7	3.08	Yes	6.25	ROW	4.75	No	0	30.57	48
SWD	SWD - H	SR 85	139.81-141.11	Water overtopping bank of the wash into the median eroding the roadway shoulders.	Construction	N	0	N	0	0.016089	6.75	>.25 mi, 6.241138	0	No	0	Yes	6	23.5	5.25	Roadway Sideslopes	15.71	8	3.08	Yes	6.25	ROW	4.75	No	0	47.79	25
SWD	SWD -I	I-10	18.89	Flooding occurs in southeast quadrant of structure threatening mobile businesses.	Construction	N	0	N	0	0.131037	6.75	>.25 mi, 44.599253	0	No	0	Yes	6	44.8	5.25	Roadway Sideslopes	15.71	9	3.08	Yes	6.25	ROW	4.75	Town of Quartzite/ private property	3.75	51.54	23
SWD	SWD - J	I-10	WB 95.8-97.5	Agricultural run-off compromising pavement section.	Construction	N	0	N	0	1.311876	0	>.25 mi, 13.118574	0	No	0	Yes	6	34.6	5.25	Roadway Sideslopes	15.71	10	3.08	Yes	6.25	ROW	4.75	Adjacent property owner	3.75	44.79	31

Tab 3 – Statewide Results Summary

The purpose of the Statewide Results Summary tab is to provide the final score for each of the projects in a summary fashion by pairing down the individual scores and results for each evaluation criterion. Similar to tab *2 – Statewide Results,* project location and brief descriptions for each individual project are found in columns B through column G. The projects are categorized by district in ascending order based on the Project ID. For example, NED – A, NED – B, NED – C, etc. Also, like tab *2 - Statewide Results,* the final score for each project with its corresponding rank are listed in column H and column I. The Statewide Top 20 Projects (highest scoring) are highlighted in green utilizing the conditional formatting tool within Excel. In the event of a tie score, as is the case with NED-A and NED K, both receiving a value of 59.67 for a tie in 15th place, each project is identified as being ranked "15.5" with the next project ranked as 17th. Refer to **Figure 5** across the next two pages for a visual representation of tab *3 – Statewide Results Summary*.

Figure 5: SWSWECS PPM Tab 3 - Statewide Results Summary

	Project Information						Top 20 Project Scoring Methodology Positive Impact - Full Weighted Points Positive Impact Partial Weighted Point (as needed) Neutral Impact - No Points	
	District	Project ID	Route	MP	Issue	Project Type	Sum	Rank
Northeast District	NED	NED - A	US 191	389.3	Area floods regularly and completely fills drainage.	Construction	59.67	15.5
	NED	NED - B	US 160	420	Erosion threatening roadway.	Construction	44.96	29.5
	NED	NED - C	US 160	380.7-363.6	PA for pipe erosion.	Construction	41.21	38
	NED	NED - D	SR 264	447.3	Flooding issues of a local school track and field.	Construction	33.11	44
	NED	NED - E	SR 73	313	Slope erosion.	Construction	27.13	50
	NED	NED - F	US 180	415.6-415.7	Stormwater erosion and roadway scour issues.	Construction	54.09	21
	NED	NED - G	US 160	373.3, 396	Severe deposition of material after each storm.	Construction	45.67	28
	NED	NED - H	US191	472	Significant down-cutting in ditch.	Construction	13.97	51.5
	NED	NED - I	SR 264	417+/-	Severe erosion in cut ditches.	Construction	13.97	51.5
	NED	NED - J	I-40	287 EB	Slow lane and onramp shoulders wash out.	Construction	58.42	17
	NED	NED - K	SR 377	8,13,24	During large rain storms the water overtops the road requiring a traffic detour.	Construction	59.67	15.5
Northcentral District	NCD	NCD - B	US 89	506.3 & 507.3 (Tanner Wash)	Tanner Wash getting closer to US 89, potential for highway failure.	Construction	42.96	36
	NCD	NCD - C	US 89A	556	Wash on the north side of US 89A at MP 556 is within 5-feet of highway.	Construction	38.96	40
	NCD	NCD - D	SR 98	299	Pipes are 15 to 20-feet below grade at inlet causing highway to act as dam.	Construction	27.38	49
	NCD	NCD - E	SR 87	239.5 (Hog Wash)	Private citizen dumps construction material upstream clogging culvert and causing sediment build up.	Construction	32.40	46
	NCD	NCD - F	US 160	322-325 (Tuba City)	Flowing water and mud/debris overtops roadway.	Construction	65.05	9
	NCD	NCD - G	US 160	356	Pipe issues results in culvert plugged with sediment and flows overtop roadway.	Construction	65.63	8
Northwest District	NWD	NWD - A	I-40	144.0 WB	Flows from breach in berm of nearby drainage basin causing erosion and sedimentation of north slope and box culverts, resulting in roadway overtopping.	Construction	67.67	5
	NWD	NWD - B	SR 95	165.3 - 165.4 SB/NB	The roadway is being compromised from the clogging of two culverts and overtopping of flows.	Construction	44.96	29.5
	NWD	NWD - C	US 93	157.6 SB, Cotton Wood Canyon	There is no support for slope except the strength of rock underlying fill and overhanging the scoured section.	Construction	53.96	22
	NWD	NWD - D	I-17	237, SE corner of NB Birdge over Moore's Gulch	Scour occurring along the abutment embankment of the corner of the bridge.	Construction	55.96	20
Central District	CD	CD - A	SR 347	SR 238 to GRIC Boundary	Erosion, bank protection and/or curb and gutter needed.	Construction	65.68	7
	CD	CD - B	I-10	163.9 - Queen Creek TI	Unstable slopes, extreme rutting and pole foundations exposed.	Construction	32.97	45
	CD	CD - C	SR 238	24.00 – 44.24	Highway experiences frequent flooding at low points, often causing roadway closures.	Construction	62.17	11

	Project Information						Top 20 Project Scoring Methodology Positive Impact - Full Weighted Points Positive Impact Partial Weighted Point (as needed) Neutral Impact - No Points	
	District	Project ID	Route	MP	Issue	Project Type	Sum	Rank
Southeast District	SED	SED - A	US 60	229.2 to 229.45	Stormwater will not drain at bridge and overtops roadway resulting in erosion.	Construction	76.05	2
	SED	SED - B	SR 288	289	Stormwater overtops roadway resulting in erosion.	Construction	43.13	35
	SED	SED - C	US 70	380.46	Channel sedimentation, overtopping by railroad.	Construction	68.09	4
	SED	SED - D	SR 186	343-350 & 358, Wilcox to Kansas Settlement	Low water crossings.	Construction	56.75	19
	SED	SED - E	SR 181	51, 55 & 60	Low water crossings.	Construction	41.79	37
	SED	SED - F	SR 266	210, Gillespie Wash	Outlet scour protection.	Construction	31.31	47
	SED	SED - G	US 60	262-263	Embankment flumes scoured out needing reconstruction.	Construction	46.21	27
	SED	SED - H	SR 177	166.7	Significant erosion on outlet side of 48-inch CMP.	Construction	37.89	42
	SED	SED - I	SR 288	265.3	Culvert restoration of undersized aged structure.	Construction	62.00	12
	SED	SED - J	SR 88	220.2 - 229.2	Culvert restoration.	Construction	61.17	14
Southcentral District	SCD	SCD - A	WB I-10-Frontage Rd. (Pomerene Rd & Ramsey Rd)	306 & 306.917 (Benson)	Sediment upstream and downstream needs to be removed. Standard maintenance equipment will not fit in the 5-foot high box culverts.	Construction	43.47	34
	SCD	SCD - B	WB I-10	306.9 (Benson-San Pedro River Bridge)	Tanner Wash getting closer to US 89, potential for highway failure.	Construction	44.10	33
	SCD	SCD - C	SB SR 80	306.079 (St David)	Wash on the north side of US 89A at MP 556 is within 5-feet of highway.	Construction	39.46	39
	SCD	SCD - D	SR 386	306.079 4.37, 6.05, 6.58, 7.5, 11.1 - Three Points	Pipes are 15 to 20-feet below grade at inlet causing highway to act as dam.	Construction	35.07	43
	SCD	SCD - E	EB/WB I-10, Marsh Station Rd., UPRR, Ramps	289.41-291.70 (Marsh Station)	Scour slopes eroding.	Construction	37.99	41
	SCD	SCD - F	I-19	8.9-9.1 (Nogales)	Scour slopes eroding.	Construction	44.36	32
	SCD	SCD - G	SR 286	24.957	Roadway overtopping and sever erosion on NB side due to undersized CMP pipes at wash location.	Construction	63.67	10
	SCD	SCD - H	SR 286	10.6	Considerable shoulder erosion and lateral migration of channel on downstream side of SR 286 crossing	Construction	46.92	26
Southwest District	SWD	SWD - A	US 95 / SR 95	65.2, 66.5, 66.9, 69.3, 92.1, 92.5, 92.9, 110.8, & 112.5	Nine low water crossings causing pavement erosion.	Construction	70.67	3
	SWD	SWD - B	US 95	54-56	Stormwater run-off eroding shoulders.	Construction	83.88	1
	SWD	SWD - C	I-8	WB 117.95	Flowing through box culvert flooding residential property.	Construction	61.93	13
	SWD	SWD - D	Pacific Ave	Ave 2E Underpass Structure #1381	Stormwater flows damaging residential subdivision.	Construction	57.35	18
	SWD	SWD - E	US 95	Fortuna Wash	Stormwater flows erosion threatening flooding of adjacent properties.	Construction	48.38	24
	SWD	SWD - F	US 95	69.83-70.04	Wash cutting into roadway during storm events causing pavement undermining.	Construction	67.59	6
	SWD	SWD - G	I-10	31.5-32.5	Roadway overtopping occurs during large storm events.	Construction	30.57	48
	SWD	SWD - H	SR 85	139.81-141.11	Water overtopping bank of the wash into the median eroding the roadway shoulders.	Construction	47.79	25
	SWD	SWD - I	I-10	18.89	Flooding occurs in southeast quadrant of structure threatening mobile businesses.	Construction	51.54	23
	SWD	SWD - J	I-10	WB 95.8-97.5	Agricultural run-off compromising pavement section.	Construction	44.79	31

B. Workflow to Complete Scoring of SWSWECS PPM Evaluation Criteria

The purpose of this section is to provide future users of the SWSECS PPM a brief description of the process and workflow on how to arrive at the result and score (see *Section IIIB – Score vs. Result* of this report for the definitions and relationship between the two) for each Evaluation Criterion. In addition, noteworthy observations (if needed) about the weighting of this criteria and identified trends in scoring results/findings are included. The following subsections detail each of the 12 Evaluation Criteria.

Criterion 1: Project eliminates or reduces flooding/ property damage of adjacent property

Criterion 1: Project eliminates or reduces flooding/property damage of adjacent property is one of the foundational criteria that reflects this project's main objectives. The result and score of this criterion are listed for each project in column G and column H.

As part of the part of *SWSWECS Working Paper #1*, phone interviews were conducted with representatives from each ADOT District to gather background information and descriptions of the issue/problem for each of the District-submitted stormwater/erosion control projects. The description of the stormwater/erosion control project or issue derived from the interviews was used to determine if property damage or flooding of adjacent property is alleviated from the potential mitigation.

Once mitigation of property damage or flooding of the adjacent property is determined, populate the result cell (column G) with either a "N" for no, property damage or flooding is not mitigated; or populate the result cell (column G) with "Y" for yes, property damage or flooding is mitigated as a result of the project. Refer to **Figure 6** below for an example of how *Criterion 1: Project eliminates or reduces flooding/property damage of adjacent property* is populated within the SWSWECS PPM.

Figure 6: Example of Criterion 1 - Project eliminates or reduces flooding/ property damage of adjacent property

A	B	C	D	E	F	G	H
				Scoring Methodology Positive Impact - Full Weighted Points Positive Impact Partial Weighted Point (as needed) Neutral Impact - No Points		**1** Project eliminates or reduces flooding or property damage of adjacent property.	
Project Information						**Result**	**Score**
District	**Project ID**	**Route**	**MP**	**Issue**	**Project Type**		
NED	*NED - A*	*US 191*	*389.3*	*Area floods regularly and completely fills drainage.*	*Construction*	N	0

Based on the Scoring Methodology (described in *Section IIIA – Scoring Methodology*) and the fact that the result can only be one of two possible options - yes or no – there are only two possible scores a project can receive. If a project does not eliminate or reduce flooding/property damage to adjacent property, the project will receive a neutral impact and be awarded zero points. On the other hand, if a project does eliminate or reduce flooding/property damage to adjacent property, the project will receive a positive impact and be awarded the full weighted points – 13.21 points for this specific criterion. The score of the project in column H will automatically populate the full weighted value of the criterion (sourced from column G in tab *1 – Evaluation Criteria)* or zero points based on whether a "Y" or a "N" are inputted into the result cell (column G of tab *2 – Statewide Results*).

Criterion 2: The stormwater issue(s) cause roadway closures and/or restrictions

Criterion 2: The stormwater issue(s) cause roadway closures and/or restrictions is another one of the foundational criteria. The result and score of this criterion are listed for each project in column I and column J.

As part of the part of *SWSWECS Working Paper #1*, phone interviews were conducted with representatives from each ADOT District to gather background information about the submitted stormwater/erosion control projects and issues. The description of the stormwater/erosion control project or issue derived from the interviews was used to determine if roadway closures and/or restrictions occur as a byproduct of the submitted stormwater/erosion control issue.

Once roadway closures and/or restrictions occur as a byproduct of the stormwater/erosion control issue has been determined, populate the result cell (column I) with either a "N" for no, roadway closure/restrictions do not occur; or populate the result cell (column I) with "Y" for yes, roadway closure/restrictions do occur. Refer to **Figure 7** below for an example of how *Criterion 2: The stormwater issue(s) cause roadway closures and/or restrictions* is populated within the SWSWECS PPM.

Figure 7: Example of Criterion 2 - The stormwater issue(s) cause roadway closures and/or restrictions

A	B	C	D	E	F	I	J
				Scoring Methodology Positive Impact - Full Weighted Points Positive Impact Partial Weighted Point (as needed) Neutral Impact - No Points		**2** The stormwater issue(s) cause roadway closures and/or restrictions.	
Project Information						Result	Score
District	Project ID	Route	MP	Issue	Project Type		
NED	*NED - A*	*US 191*	*389.3*	*Area floods regularly and completely fills drainage.*	*Construction*	Y	16.71

Based on the Scoring Methodology (described in *Section IIIA – Scoring Methodology*) and that the result can only be one of two possible options - yes or no – there are only two possible scores a project can receive. If a project does not cause roadway closures/restrictions, the project will receive a neutral impact and be awarded zero points. Conversely, if a project does cause roadway closures/restrictions, the project will receive a positive impact and be awarded the full weighted points – 16.71 points for this specific criterion. The score of the project in column J will automatically populate the full weighted value of the criterion (sourced from column G in tab *1 – Evaluation Criteria)* or zero points based on whether a "Y" or a "N" are inputted into the result cell (column J of tab *2 – Statewide Results*).

Criterion 3: Existing condition is located in proximity to Jurisdictional Waters of the US (WOTUS)

Criterion 3: Existing condition is located in proximity to Jurisdictional Waters of the U.S. (WOTUS) is one of the criteria that will require the use of geographic software to measure the distance between a project location and Jurisdictional WOTUS. The result and the score of this criterion are listed in column K and column L.

This criterion evaluates whether a project is located within one mile of any Jurisdictional WOTUS or not. A user can either use ArcGIS software or Google Earth to measure between the two points. ArcGIS is recommended since the WOTUS data is readily available from ADOT (and others). Once the distance

between the project location and any jurisdictional WOTUS has been measured, input the distance (in miles) within the results cell (column K). Refer to **Figure 8** for a visual representation of how *Criterion 3: Existing condition is located in proximity to Jurisdictional WOTUS* is populated within the SWSWECS PPM.

Figure 8: Example of Criterion 3 - Existing condition is located in proximity to Jurisdictional Water of the US (WOTUS)

A	B	C	D	E	F	K	L
				Scoring Methodology Positive Impact - Full Weighted Points Positive Impact Partial Weighted Point (as needed) Neutral Impact - No Points		**3** Existing condition is located in proximity to Jurisdictional Water of the US (WOTUS).	
Project Information						Result	Score
District	Project ID	Route	MP	Issue	Project Type		
NED	*NED - A*	*US 191*	*389.3*	*Area floods regularly and completely fills drainage.*	*Construction*	0.068	6.75

Projects receive full weighted points – 6.75 points – if located within one mile of any Jurisdictional WOTUS, while projects located greater than one mile from any Jurisdictional WOTUS receive zero points. The score for a project in column L will automatically populate with the full weighted value (sourced from column G in tab *1 – Evaluation Criteria)* or zero points based on whether or not the value in the result cell is less than or equal to one mile or greater than one mile.

In the application of this criterion in future years by ADOT, it is recommended that ADOT annually assess the presence of any existing WOTUS in proximity to a proposed ADOT stormwater project as WOTUS designations may change based on new WOTUS determinations and/or rule decisions made by the Federal government and/or judicial processes.

Criterion 4: Existing condition is located in proximity to Impaired and/or Outstanding Arizona Waters

Criterion 4: Existing condition is located in proximity to Impaired and/or Outstanding Arizona Waters is another criterion that will require the use of geographic software to measure the distance between a project location and the location of any impaired and/or outstanding Arizona waters. The result and the score of this criterion are listed in column M and column N.

This criterion evaluates whether a project is located within a one-quarter mile radius of any impaired and/or outstanding Arizona waters or not. A user can either use ArcGIS software or Google Earth to measure the distance between the two points, although ArcGIS is recommended because recent data is readily available within ADOT. Once the distance between the project location and any jurisdictional WOTUS has been measured, input the distance in miles within the results cell (column K). Refer to **Figure 9** for a visual representation of how *Criterion 4: Existing condition is located in proximity to Impaired and/or Outstanding Arizona Waters* is populated within the SWSWECS PPM.

Figure 9: Example of Criterion 4 - Existing condition is located in proximity to Impaired and/or Outstanding Arizona Waters

A	B	C	D	E	F	M	N
				Scoring Methodology Positive Impact - Full Weighted Points Positive Impact Partial Weighted Point (as needed) Neutral Impact - No Points		**4** Existing condition is located in proximity to Impaired and/or Outstanding Arizona Waters.	
Project Information						**Result**	**Score**
District	**Project ID**	**Route**	**MP**	**Issue**	**Project Type**		
NED	*NED - A*	*US 191*	*389.3*	*Area floods regularly and completely fills drainage.*	*Construction*	>.25 mi, 32.716038	0

Projects receive full weighted points – 7.13 points – if located within a one-quarter mile radius impaired and/or outstanding Arizona waters, while projects located greater than one-quarter mile from radius impaired and/or outstanding Arizona waters receive zero points. The score for a project in column N will automatically populate with the full weighted value (sourced from column G in tab *1 – Evaluation Criteria)* or zero points based on whether or not the value in the result cell is less than or equal to one-quarter mile or greater than one-quarter mile.

In the application of this criterion in future years by ADOT, it is recommended that ADOT annually assess the presence of any existing *Impaired and/or Outstanding Arizona Waters* in proximity to a proposed ADOT stormwater project as such designations are subject to periodic change.

Criterion 5: Project location has a TMDL (Total Maximum Daily Load) Already in Place

Criterion 5: Project location has a TMDL Already in Place is another criterion that will require the use geographic software to determine if a project location has a TMDL designation. This criterion evaluates whether a project location currently has a TMDL designation in place or not. The result and the score of this criterion are listed in column O and column P.

Once the TMDL designation has been determined, input "Y" in the result cell (column O) is there is a TMDL designation in place, or input a "N" in the result cell if there is not currently a TMDL designation in place at the project location. **Figure 10** provides a visual representation of how *Criterion 5: Project location has a TMDL Already in Place* is populated within the SWSWECS PPM.

Figure 10: Example of Criterion 5 - Project location has a TMDL Already in Place

A	B	C	D	E	F	O	P
				Scoring Methodology Positive Impact - Full Weighted Points Positive Impact Partial Weighted Point (as needed) Neutral Impact - No Points		**5** Project location has a TMDL already in place.	
Project Information						**Result**	**Score**
District	**Project ID**	**Route**	**MP**	**Issue**	**Project Type**		
NED	*NED - A*	*US 191*	*389.3*	*Area floods regularly and completely fills drainage.*	*Construction*	N	0

Projects receive full weighted points – 5.25 points – if there is a TMDL designation currently in place, while projects without a current TMDL designation receive zero points. The score for a project in column

N will automatically populate with the full weighted value (sourced from column G in tab *1 – Evaluation Criteria)* or zero points based on whether or not the value in the result cell is a "Y" or a "N".

In the application of this criterion in future years by ADOT, it is recommended that ADOT annually assess the presence of any existing TMDLs in proximity to a proposed ADOT stormwater project as such designations are subject to periodic change. Consultant is providing ArcGIS file packages for existing TMDLs. Future users will want to reference http://azdeq.gov/watershed-plans-and-tmdls for the most up to date information.

Criterion 6: Project located on an ADOT corridor of strategic significance as defined by a completed Corridor Profile Study

Criterion 6: Project located on an ADOT corridor of strategic significance as defined by a completed Corridor Profile Study is identifying the relative importance of the corridor through the connection with a previous and/or ongoing ADOT Corridor Profile Study. The result and the score of this criterion are listed in column Q and column R.

The user will need to refer to the ADOT Corridor Profile Study project website to determine whether a project is located within the limits of a corridor of strategic significance as defined by a completed Corridor Profile Study or not. At the time of publication, there were a total of 22 Corridor Profile Studies conducted across the state and the static map available on the project website was utilized to determine if a project was located on an ADOT corridor of strategic significance as defined by a completed Corridor Profile Studies. Refer to the Corridor Profile Study project website to determine ADOT's corridors of strategic significance as defined by a completed Corridor Profile Study.

Once a project location has been identified within or outside the limits of an ADOT corridors of strategic significance as defined by a completed Corridor Profile Study, input "Y" in the result cell (column Q) if the project is within the limits, or input a "N" in the result cell if the project is located outside the limits. **Figure 11** below shows how *Criterion 6: Project located on an ADOT corridor of strategic significance as defined by a completed Corridor Profile Study* is populated within the SWSWECS PPM.

Figure 11 - Example of Criterion 6: Project located on an ADOT corridor of strategic significance as defined by a completed Corridor Profile Study

A	B	C	D	E	F	Q	R
				Scoring Methodology Positive Impact - Full Weighted Points Positive Impact Partial Weighted Point (as needed) Neutral Impact - No Points		**6** Project located on an ADOT corridor of strategic significance as defined by a completed Corridor Profile Study	
Project Information						**Result**	**Score**
District	**Project ID**	**Route**	**MP**	**Issue**	**Project Type**		
NED	*NED - A*	*US 191*	*389.3*	*Area floods regularly and completely fills drainage.*	*Construction*	Y	6

Projects receive full weighted points – 6 points – if the project is located on an ADOT corridor of strategic significance as defined by a completed Corridor Profile Studies, while projects located outside of the limits receive zero points. The score for a project in column R will automatically populate with the

full weighted value (sourced from column G in tab *1 – Evaluation Criteria)* or zero points based on whether or not the value in the result cell is a "Y" or a "N".

Criterion 7: Percentage of freight flow movement (T-Factor) reported on the ADOT corridor

Criterion 7: Percentage of freight flow movement (T-Factor) reported on the ADOT corridor is identifying the relative importance of the corridor with respect to the percentage of freight traffic in the project corridor. The result and the score of this criterion are listed in column S and column T.

The future user will need to collaborate with ADOT's Traffic Monitoring Group to obtain the most recent Annual Average Daily Traffic (AADT) publication to determine the percentage of freight traffic, which is known as the T-Factor. At the time of publication, ADOT's Traffic Monitoring Group provided the most recent available AADT data in Excel format to identify the T-Factor for any given corridor. Utilizing the sort function within Excel, determine the T-Factor on the corridor within the mile posts that match the project location.

Through consultant recommendation and buy-in from the TAC and the Project Team, four thresholds of a corridor T-Factors were identified to score projects. Projects located on a corridor with a T-Factor greater or equal to 15% receive the full weighted value; and projects located on a corridor with a T-Factor of 10% - 15% and 5% - 10% receive partial weighted points; and any project located on a corridor with a T-Factor less than or equal to 5% receive zero points. Once the T-Factor has been identified, populate the numerical value of the percentage in the result cell (column S). **Figure 12** highlights how *Criterion 7: Percentage of freight flow movement (T-Factor) reported on the ADOT corridor* is populated within the SWSWECS PPM.

Figure 12: Example of Criterion 7 - Percentage of freight flow movement (T-Factor) reported on the ADOT corridor

A	B	C	D	E	F	S	T
				Scoring Methodology Positive Impact - Full Weighted Points Positive Impact Partial Weighted Point (as needed) Neutral Impact - No Points		**7** Percentage of freight flow movement (T-Factor) reported on the ADOT corridor? *	
Project Information						Result	Score
District	Project ID	Route	MP	Issue	Project Type		
NED	*NED - A*	*US 191*	*389.3*	*Area floods regularly and completely fills drainage.*	*Construction*	21.3	5.25

As previously described, there are four possible scores a project can receive based on the Scoring Methodology (described in *Section IIIA – Scoring Methodology*) and that the result can only be one of four possible options based on the four T-Factor thresholds. For instance, a project will receive the full weighted points – 5.25 points – if the project is located on a corridor with a T-Factor greater or equal to 15%. Projects located on a corridor with a T-Factor of 10% - 15% receive a partial weighted score of 3.50 points; while projects located on a corridor with a T-Factor between 5% - 10% receive an even smaller partial weighted value of 1.75 points. Any project located on a corridor with a T-Factor less than or equal to 5% receive zero points. The score of the project in column T will automatically populate the full weighted value, partial weighted value, or zero points (sourced from column G in tab *1 – Evaluation Criteria)* based on the T-Factor percentage inputted into the result cell.

Criterion 8: Impact to the structural integrity of existing ADOT assets in the Right-of-Way

Criterion 8: Impact to the structural integrity of existing ADOT assets in the Right-of-Way (ROW) is another one of the foundational criteria. The result and score of this criterion are listed for each project in column U and column V.

As part of the part of *SWSWECS Working Paper #1*, phone interviews were conducted with representatives from each ADOT District to obtain information about the submitted stormwater/erosion control projects and issues. The description of the stormwater/erosion control project or issue is derived from the interviews is the source to determine if there is an impact to the structural integrity of existing ADOT assets in the ROW.

The three types of ADOT assets evaluated for impact to their structural integrity are the roadway, sideslopes, and conveyance channels, catch basin or similar structures. Through conversations with District representatives, consultant analysis, and TAC input, a determination of impacts to the structural integrity of roadways were determined to be the most significant, followed by impacts to the structural integrity of sideslopes, and then impacts to the structural integrity of conveyance channels, catch basin or similar structures. In other words, stormwater/erosion control issue that cause impacts to the roadway receive the full possible points; while if a project causes impacts to sideslopes or conveyance channels, catch basin or similar structures, the project would receive partial points. If there are no impacts to ADOT assets within the ROW the project would be awarded zero points.

Once impacts to the structural integrity of the three types ADOT assets within the ROW have been identified from the description of stormwater/erosion control issue, populate the result cell (column U) with the assets impacted. Input "Roadway" if the structural integrity of the roadway is impacted, input "Sideslopes" if the structural integrity of the sideslopes are impacted, and/or input "drainage conveyance" if the structural integrity of conveyance channels, catch basin or similar structures are impacted. Insert the asset with the highest points into the result cell (column U). Refer to **Figure 13** for an example of how *Criterion 8: Impact to the structural integrity of existing ADOT assets in the ROW* is populated within the SWSWECS PPM.

Figure 13: Example of Criterion 8 - Impact to the structural integrity of existing ADOT assets in the Right-of-Way

A	B	C	D	E	F	U	V
				Scoring Methodology Positive Impact - Full Weighted Points Positive Impact Partial Weighted Point (as needed) Neutral Impact - No Points		**8** Project would eliminate the negative impact to the structural integrity of existing ADOT assets in the ROW.	
Project Information						**Result**	**Score**
District	**Project ID**	**Route**	**MP**	**Issue**	**Project Type**		
NED	*NED - A*	*US 191*	*389.3*	*Area floods regularly and completely fills drainage.*	*Construction*	Roadway Drainage Conveyance	15.71

There are four possible scores a project can receive based on the Scoring Methodology (described in *Section IIIA – Scoring Methodology*) and that the result can only be one of four possible options. A project will receive full weighted points – 15.71 points – if the project eliminates impacts to the structural integrity of the roadway; a project will receive partial weighted points – 10.47 points - if the project eliminates impacts to the structural integrity of the sideslopes; a project will receive partial

weighted points – 5.24 points - if the project eliminates impacts to the structural integrity of conveyance channels, catch basin or similar structures; or a project will receive zero points if a project would not eliminate impacts to the roadway, sideslopes, and/or conveyance channels, catch basin or similar structures.

The score of the project in column V will automatically populate the full weighted value, partial weighted value, or zero points (sourced from column G in tab *1 – Evaluation Criteria)* based on assets were inputted into column U as previously described.

Criterion 9: Project is identified by the ADOT District as a priority

Criterion 9: Project is identified by the ADOT District as a priority is another one of the foundational criteria to help ensure that projects deemed a priority by the local ADOT District receive higher scores. The result and score of this criterion are listed for each project in column W and column X.

As part of the part of *SWSWECS Working Paper #1*, phone interviews were conducted with representatives from each ADOT District to obtain information about the submitted stormwater/erosion control projects and issues. The ADOT District representative was asked to rank their submitted stormwater/erosion control projects in order from most important to least important. Starting with the value one, the representative ranked their submitted projects in ascending order. These ranks identified by the ADOT District representative are used to calculate the result and the score of a project.

Three thresholds to score projects were selected through conversations with the TAC and the Project Team. The projects the Districts ranked as priority 1 – 3 receive the full weighted value, projects the Districts prioritized as 4 – 6 received a partial weighted value, and any projects prioritized at 7 or greater receive zero points.

Once the priority of the submitted stormwater/erosion control projects have been determined, populate the result cell (column W) accordingly with the numerical value of the District's prioritized rank (1 – 7+). Refer to **Figure 14** for an example of how *Criterion 9: Project is identified by the ADOT District as a priority* is populated within the SWSWECS PPM.

Figure 14: Example of Criterion 9 - Project is identified by the ADOT District as a priority

A	B	C	D	E	F	W	X
				Scoring Methodology Positive Impact - Full Weighted Points Positive Impact Partial Weighted Point (as needed) Neutral Impact - No Points		**9** Project is identified by the ADOT District as a priority.	
Project Information						**Result**	**Score**
District	**Project ID**	**Route**	**MP**	**Issue**	**Project Type**		
NED	*NED - A*	*US 191*	*389.3*	*Area floods regularly and completely fills drainage.*	*Construction*	2	9.25

There are three possible scores a project can receive based on the Scoring Methodology (described in *Section IIIA – Scoring Methodology*) and that the result can only be one of three possible options based on the three thresholds previously described. A project will receive full weighted points – 9.25 points – if a District has ranked the project 1 -3, while projects ranked 4 -6 receive partial weighted points – 6.17 points. If a District has ranked the project at 7 or greater the project will receive zero points.

The score of the project in column X will automatically populate the full weighted value, partial weighted value, or zero points (sourced from column G in tab *1 – Evaluation Criteria)* based on the numerical value of the District's prioritized rank for that project inputted into column W as previously described.

Criterion 10: Project can be completed entirely within the existing ADOT Right-of-Way

Criterion 10: Project can be completed entirely within the existing ADOT ROW is a criterion that is calculated utilizing the project description and ADOT's ROW database. The result and score of this criterion are listed for each project in column Y and column Z.

As part of the part of *SWSWECS Working Paper #1*, phone interviews were conducted with representatives from each ADOT District to obtain information about the submitted stormwater/erosion control projects and issues. The description of the stormwater/erosion control project from the interview is used to determine if the entire mitigation project can be completed within the ADOT's ROW. Once the limits of the proposed stormwater/erosion control project have been identified, confirm that the project can be entirely completed within ADOT's ROW by using ADOT's Records Research or ADOT's ROW GIS data.

After determining whether or not a project can be completed entirely within ADOT's ROW, populate the result cell (column Y) with either a "N" for no, the project cannot be completed entirely within ADOT's ROW; or populate the result cell (column Y) with "Y" for yes, the project can be completed entirely within ADOT's ROW. Refer to **Figure 15** for an example of how *Criterion 10: Project can be completed entirely within the existing ADOT ROW* is populated within the SWSWECS PPM.

Figure 15: Example of Criterion 10 - Project can be completed entirely within the existing ADOT Right-of-Way

A	B	C	D	E	F	Y	Z
				Scoring Methodology Positive Impact - Full Weighted Points Positive Impact Partial Weighted Point (as needed) Neutral Impact - No Points		**10** Project can be completed entirely within the existing ADOT ROW.	
Project Information						**Result**	**Score**
District	**Project ID**	**Route**	**MP**	**Issue**	**Project Type**		
NED	*NED - A*	*US 191*	*389.3*	*Area floods regularly and completely fills drainage.*	*Construction*	N	0

Based on the Scoring Methodology (described in *Section IIIA – Scoring Methodology*) and that the result can only be one of two possible options - yes or no – there are only two possible scores a project can receive. If a project cannot be completed entirely within ADOT's ROW, the project will receive a neutral impact and be awarded zero points. On the other hand, if a project can be completed entirely within ADOT's ROW, the project will receive a positive impact and be awarded the full weighted points – 6.25 points for this specific criterion. The score of the project in column Z will automatically populate the full weighted value of the criterion (sourced from column G in tab *1 – Evaluation Criteria)* or zero points based on whether a "Y" or a "N" are inputted into the result cell (column Z of tab *2 – Statewide Results*).

Criterion 11: Project is located within ADOT ROW or an easement upon public lands

Criterion 11: Project is located within ADOT ROW or an easement upon public lands is one of the criteria that is calculated utilizing either geographic software or ADOT's ROW database. The result and score of this criterion are listed for each project in column AA and column AB.

As part of the part of *SWSWECS Working Paper #1*, phone interviews were conducted with representatives from each ADOT District to obtain information about the submitted stormwater/erosion control projects and issues. The exact location and a description of the stormwater/erosion control project or issue were provided by the Districts during the interviews. The District provided exact mileposts in which the stormwater/erosion control project or issue occur. After determining the extent of the stormwater/erosion control project and the exact location of the project, use ADOT's Records Research and/or ADOT's ROW GIS data to determine if the stormwater/erosion control project is located within ADOT's ROW or an easement.

Once the stormwater/erosion control project location has been identified in ADOT's ROW or an easement, simply input "ROW" in the result cell (column AA) if the project is located within ADOT's ROW, or input "easement" in the result cell (column AA) if the project is located within an easement. **Figure 16** provides an example of how *Criterion 11: Project is located within ADOT ROW or an easement upon public lands* is populated within the SWSWECS PPM.

Figure 16: Example of Criterion 11 - Project is located within ADOT ROW or an easement upon public lands

A	B	C	D	E	F	AA	AB
				Scoring Methodology Positive Impact - Full Weighted Points Positive Impact Partial Weighted Point (as needed) Neutral Impact - No Points		**11** Project is located within ADOT ROW or an easement upon public lands.	
Project Information						**Result**	**Score**
District	**Project ID**	**Route**	**MP**	**Issue**	**Project Type**		
NED	*NED - A*	*US 191*	*389.3*	*Area floods regularly and completely fills drainage.*	*Construction*	Easement	0

Based on the Scoring Methodology (described in *Section IIIA – Scoring Methodology*) and that the result can only be one of two possible options – within ADOT's ROW or an easement – there are only two possible scores a project can receive. If a project is located within an easement, the project will receive a neutral impact and be awarded zero points. On the other hand, if a project is located within ADOT's ROW, the project will receive a positive impact and be awarded the full weighted points – 4.75 points for this specific criterion. The score of the project in column AB will automatically populate the full weighted value of the criterion (sourced from column G in tab *1 – Evaluation Criteria)* or zero points based on whether "easement" or a "ROW" are inputted into the result cell (column AA of tab *2 – Statewide Results*).

Criterion 12: Opportunity to leverage financial partner participation

Criterion 12: Opportunity to leverage financial partner participation is one of the criteria that will require the use of geographic software to identify adjacent land ownership to determine if there is a potential opportunity to leverage financial partnership in the implementation of a project. The result and the score of this criterion are listed in column AC and column AD.

This criterion evaluates whether a project has the potential opportunity to partner with an adjacent property owner to complete the project or not. A user will require the use of ArcGIS software to determine if adjacent property owners could potentially have a vested interest in the construction of the project. Many of the property owners identified at potential partners included railroad operators, municipalities, various Indian Communities, Counties, and the federal entities such as the Bureau of Land Management and the Army Corps of Engineers. After inventorying adjacent property owners, determine if any of them could potentially have a vested interest in the project based on the project description.

Once any opportunity for potential financial partnership has been determined, populate the result cell (column AC) with name of the potential partner. If there is no likely potential financial partnership identified, populate the result cell (column AC) with "no/unknown". See **Figure 17** for a visual representation of how *Criterion 12: Opportunity to leverage financial partner participation* is populated within the SWSWECS PPM.

Figure 17: Example of Criterion 12 - Opportunity to leverage financial partner participation

A	B	C	D	E	F	AC	AD
				Scoring Methodology Positive Impact - Full Weighted Points Positive Impact Partial Weighted Point (as needed) Neutral Impact - No Points		**12** Opportunity to leverage financial partner participation.	
Project Information						**Result**	**Score**
District	**Project ID**	**Route**	**MP**	**Issue**	**Project Type**		
NED	*NED - A*	*US 191*	*389.3*	*Area floods regularly and completely fills drainage.*	*Construction*	No/Unknown	0

There are only two possible scores a project can receive based on the Scoring Methodology (described in *Section IIIA – Scoring Methodology*) and that the result can only be one of two possible options. If there has not been any opportunity for potential finical partnership identified, the project will receive a neutral impact and be awarded zero points. On the other hand, if any opportunity for potential financial partnership has been determined, the project will receive a positive impact and be awarded the full weighted points – 3.75 points for this specific criterion. The score of the project in column AD will automatically populate the full weighted value of the criterion (sourced from column G in tab *1 – Evaluation Criteria)* or zero points based on whether "no/unknown" has been inputted into the result cell (column AC of tab *2 – Statewide Results*)