

## Arroyo Documentation

<b>Arroyo Name:</b>	Arroyo De Los Chamisos	Infrastructure Damage/Risk Avg : <b>1.2</b>	Date: 4/5/2016
<b>Arroyo Segment:</b>	C	Channel Character/Drainage Avg: <b>1.6</b>	Surveyed by: KJK TN
<b>Start point:</b>	Conejo Road		
<b>End point:</b>	St. Francis Drive		

### INFRASTRUCTURE RISKS

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
<b>C1<sup>1</sup></b>						1	<b>0.9</b>
<b>C2<sup>2</sup></b>		1.5					<b>1.4</b>
<b>C3</b>							<b>NA</b>
<b>C4<sup>3</sup></b>						3	<b>2.9</b>
<b>C5</b>						1.5	<b>NA</b>
<b>C5b<sup>4</sup></b>		1					<b>0.9</b>
<b>C6</b>		1.5					<b>1.4</b>
<b>C7</b>							<b>NA</b>
<b>C8<sup>5</sup></b>							<b>NA</b>
<b>C9</b>		2					<b>1.9</b>
<b>C10</b>							<b>NA</b>
<b>C11</b>					1		<b>0.9</b>

Graded Scoring System A=4 B=3 C=2 D=1

## Arroyo Documentation

	CHANNEL CHARACTERISTICS						
	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
C1							NA
C2				2		1.5	1.5
C3	2		1.5			3	1.7
C4			2.5			2.5	2.2
C5			2			3	2.2
C5b			2	2	1.5		1.4
C6			2.5		1.5		1.7
C7					1.5		1.4
C8					1.5		1.4
C9							NA
C10						1	0.9
C11							NA

Graded Scoring System A=4 B=3 C=2 D=1

## Arroyo Documentation

Arroyo Name:	Arroyo De Los Chamisos	Infrastructure Damage/Risk Avg:	1.4	Date:	4/5/2016
	Arroyo Segment: D	Channel Character/Drainage Avg:	0.8	Surveyed by:	KJK TN
Start point:	South St. Francis Drive				
End point:	Yucca Street				
INFRASTRUCTURE RISKS					

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
D1		1					0.9
D2		1					0.9
D3 <sup>6</sup>		1					0.9
D4 <sup>7</sup>					3.5		3.4
D5 <sup>8</sup>					3		2.9
D6 <sup>9</sup>		1					0.9
D7 <sup>10</sup>		1					0.9
D8 <sup>11</sup>			2				1.9
D9 <sup>12</sup>		1.5					1.4
D10 <sup>13</sup>						1	0.9
D11 <sup>14</sup>		1			2.5		1.5
D12 <sup>15</sup>		1			1	1	0.5
D13 <sup>16</sup>			1				0.9
D14		1				1	0.7

Graded Scoring System A=4 B=3 C=2 D=1

# Arroyo Documentation

## CHANNEL CHARACTERISTICS

	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
<b>D1</b> <sup>17</sup>	1		1.5	2		1	<b>0.8</b>
<b>D2</b>	1		1.5	1.5		1	<b>0.6</b>
<b>D3</b>				2			<b>1.9</b>
<b>D4</b>							<b>NA</b>
<b>D5</b>						1	<b>0.9</b>
<b>D6</b>	1		1			1	<b>0.5</b>
<b>D7</b>	1		1			1	<b>0.5</b>
<b>D8</b>							<b>NA</b>
<b>D9</b>							<b>NA</b>
<b>D10</b>							<b>NA</b>
<b>D11</b>							<b>NA</b>
<b>D12</b>							<b>NA</b>
<b>D13</b>						1	<b>0.9</b>
<b>D14</b> <sup>18</sup>	1		1.5	2			<b>1</b>

Graded Scoring System A=4 B=3 C=2 D=1

## Arroyo Documentation

Arroyo Name:	Arroyo De Los Chamisos	Infrastructure Damage/Risk Avg:	2.4	Date:	4/5/2016
	Arroyo Segment: E	Channel Character/Drainage Avg:	1.7	Surveyed by:	KJK JJ
Start point:	Yucca Street				
End point:	Camino Carlos Rey				
INFRASTRUCTURE RISKS					

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
E1		2.5					2.4
E2							NA
E3 <sup>19</sup>		2					NA

### CHANNEL CHARACTERISTICS

	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
E1 <sup>20</sup>			2		2.5		2
E2 <sup>21</sup>			1		1	1.5	0.7
E3			2.5				2.4

Graded Scoring System A=4 B=3 C=2 D=1

## Arroyo Documentation

<b>Arroyo Name:</b>	Arroyo De Los Chamisos	<b>Infrastructure Damage/Risk :</b>	<b>1.72</b>	Date:	4/5/2016
<b>Arroyo Segment:</b>	F	<b>Channel Character/Drainage:</b>	<b>1</b>	Surveyed by:	KJK JJ
<b>Start point:</b>	Camino Carlos Rey				
<b>End point:</b>	Ave de Las Campanas				

### INFRASTRUCTURE RISKS

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
<b>F1</b> <sup>22</sup>							<b>NA</b>
<b>F2</b> <sup>23</sup>			3				<b>2.9</b>
<b>F3</b> <sup>24</sup>			1				<b>0.9</b>
<b>F4</b> <sup>25</sup>		1					<b>0.9</b>
<b>F5</b>					3		<b>2.9</b>
<b>F6</b>		1			1.5		<b>1</b>

### CHANNEL CHARACTERISTICS

	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
<b>F1</b>	1		2				<b>1.2</b>
<b>F2</b>							<b>NA</b>
<b>F3</b>							<b>NA</b>
<b>F4</b>				1			<b>NA</b>
<b>F5</b>					1		<b>0.9</b>
<b>F6</b> <sup>26</sup>			1				<b>0.9</b>

Graded Scoring System A=4 B=3 C=2 D=1

## Arroyo Documentation

Arroyo Name:	Arroyo De Los Chamisos	Infrastructure Damage/Risk Avg :	1.7	Date:	4/5/2016
Arroyo Segment:	G	Channel Character/Drainage Avg:	1.3	Surveyed by:	KJK JJ
Start point:	Ave de Las Campanas				
End point:	Rodeo Road				
INFRASTRUCTURE RISKS					

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
<b>G1</b> <sup>27</sup>						1	<b>0.9</b>
<b>G2</b> <sup>28</sup>		2	1.5				<b>1.5</b>
<b>G3</b> <sup>29</sup>		2				1	<b>1.2</b>
<b>G4</b> <sup>30</sup>		1					<b>0.9</b>
<b>G5</b>							<b>NA</b>
<b>G6</b> <sup>31</sup>			3.5				<b>3.4</b>
<b>G7</b>		2.5					<b>2.4</b>

<b>CHANNEL CHARACTERISTICS</b>						
	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap
<b>G1</b>						<b>NA</b>
<b>G2</b>						<b>NA</b>
<b>G3</b>				1		<b>0.9</b>
<b>G4</b>				1	1	<b>0.7</b>
<b>G5</b> <sup>32</sup>				1	1	<b>0.7</b>
<b>G6</b>						<b>NA</b>
<b>G7</b> <sup>33</sup>			2.5			3.5
						<b>2.7</b>

Graded Scoring System A=4 B=3 C=2 D=1

## Arroyo Documentation

Arroyo Name:	Arroyo De Los Chamisos	Infrastructure Damage/Risk Avg :	1.4	Date:	3/25/2016
Arroyo Segment:	H	Channel Character/Drainage Avg:	1.9	Surveyed by:	KJK TN
Start point:	Rodeo Road				
End point:	Governor Miles				
INFRASTRUCTURE RISKS					

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
H1 <sup>34</sup>		1					0.9
H2 <sup>35</sup>		1					0.9
H3 <sup>36</sup>		1		3			NA
H4			2.5				2.4
H5	3						NA

### CHANNEL CHARACTERISTICS

	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
H1							NA
H2							NA
H3							NA
H4							NA
H5 <sup>37</sup>						2	1.9

Graded Scoring System A=4 B=3 C=2 D=1



## Arroyo Documentation

- 1 Photo point at exposed utility. Second point at Utility pole
- 2 Sewer located by vertical bank.
- 3 Utility encasement exposed.
- 4 Bank erosion/ private property impacted.
- 5 Active erosion.
- 6 Bridge in poor condition
- 7 Bank of arroyo acts as temporary buffer for SFHS bridge.
- 8 Minor erosion at bridge support. Butress protected by arroyo bank.
- 9 Illustration of bank erosion at road level/ erosion removes soil away from butress.
- 10 Corridor of vertical banks and parallel to bike trail. 15ft + plunge from trail to arroyo bed.
- 11 15ft + vertical walls with ONLY 6 ft. margin for operator error: DANGER
- 12 Bent culvert
- 13 New addition added to retaining wall is unstable / erosion on bank
- 14 East side/ upstream/ erosion at Votek bridge butress
- 15 East side/ upstream/ erosion at Votek bridge butress
- 16 point recorded btwn 2 west side bridge buttresses extensive undercutting b water photo 1 ,2= trail side /photo 3,4=west butress
- 17 Support structure of culvert exposed, supporting soil absent.
- 18 Start of deep canyon like corridor -End point D2
- 19 1=exposed utility 2=vertical walls by bike trail 3= severe erosion impact on arroyo by new source.
- 20 Impacts of erosion have increased since 2012.
- 21 Constriction in channel with fence eroding from bank.
- 22 Severe constriction in channel plus root ball obstructs channel/redirected water flow undercuts soil beneath rip rap.
- 23 Great location to capture water beneath culvert
- 24 Drainage pad severely damaged ; deflecting water
- 25 Active bank erosion - 150 yd.of vertical banks and tree uprooted
- 26 Constricted channel, check sediment levels
- 27 Exposed utility line; sewer outlet threatened by erosion; utility box endangered
- 28 Property line endangered by active erosion ; culvert threatened by high storm flow.
- 29 Active bank erosion; city irrigation system dislodged from bank.
- 30 Private property endangered by active bank erosion.
- 31 Possible location for storm water catchment basin.
- 32 Vertical banks appear
- 33 Point illustrates water events undercutting 1-2ft below rip rap

Graded Scoring System A=4 B=3 C=2 D=1

## **Arroyo Documentation**

- 34 Storm water from neighboring curb cut drains into arroyo, incising the bank.
- 35 Erosion caused by secondary storm water drainage/ Check dam out of service/ bypassed check dam
- 36 Bridge footing was not exposed in 2012.
- 37 Exposed and undercut rip rap alongside trail.

# ARROYO ASSESSMENT

<b>Arroyo Name:</b>	Arroyo Rosario	<b>Infrastructure Damage/Risk Avg:</b>	<b>1</b>	<b>Date:</b>	12/4/2015
<b>Arroyo Segment:</b>	A	<b>Channel Character/Drainage Avg:</b>	<b>1.7</b>	<b>Surveyed by:</b>	KJK
<b>Start point:</b>	Below HWY 285-S				
<b>End point:</b>	373 Calle Loma Norte				

## INFRASTRUCTURE RISKS

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
<b>A1<sup>1</sup></b>			1				<b>0.9</b>
<b>A2</b>							<b>NA</b>
<b>A3</b>							<b>NA</b>
<b>A4</b>		1					<b>0.9</b>
<b>A5</b>		1					<b>0.9</b>
<b>A6</b>		1					<b>0.9</b>
<b>A7</b>		1.5					<b>1.4</b>

## CHANNEL CHARACTERISTICS

	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
<b>A1</b>			4				<b>3.9</b>
<b>A2<sup>2</sup></b>						1	<b>0.9</b>
<b>A3<sup>3</sup></b>	3.5		2				<b>2.5</b>
<b>A4</b>	1		2	1.5	1.5		<b>0.9</b>
<b>A5</b>	2		2.5		2	2	<b>1.5</b>
<b>A6<sup>4</sup></b>				1	1		<b>0.7</b>
<b>A7<sup>5</sup></b>				1.5	1.5		<b>1.5</b>

Graded Scoring System A=4 B=3 C=2 D=1

## ARROYO ASSESSMENT

Trail point B1	Arroyo Name:	Arroyo Rosario	Infrastructure Damage/Risk Avg :		2.4	Date:	12/4/2016
	Arroyo Segment:	B	Channel Character/Drainage Avg:		2.4	Surveyed By: KJK	
	Start point:	373 Calle Loma Norte					
	End point:	388 Calle Loma Norte					
	INFRASTRUCTURE RISKS						
	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
		2.5					2.4
	CHANNEL CHARACTERISTICS						
	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
					2.5		2.4
B1 <sup>6</sup>							
	Arroyo Name:	Arroyo Rosario	Infrastructure Damage/Risk Avg :		NA	Date:	12/4/2016
	Arroyo Segment:	C	Channel Character/Drainage Avg:		0.9	Surveyed by: KJK REJ	
	Start point:	388 Calle Loma Norte					
	End point:	Los Arboles					
	INFRASTRUCTURE RISKS						
	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
							NA
	CHANNEL CHARACTERISTICS						
	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
C1 <sup>7</sup>	1					0.9	

Graded Scoring System A=4 B=3 C=2 D=1

# ARROYO ASSESSMENT

<b>Arroyo Name:</b>	Arroyo Rosario	<b>Infrastructure Damage/Risk Avg :</b>	<b>2.2</b>	Date:	12/4/2016
<b>Arroyo Segment:</b>	D	<b>Channel Character/Drainage Avg:</b>	<b>1.4</b>	Surveyed by:	KJK
<b>Start point:</b>	Los Arboles				
<b>End point:</b>	Rio Grand Street				

## INFRASTRUCTURE RISKS

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
<b>D1<sup>8</sup></b>		1.5					<b>1.4</b>
<b>D2<sup>9</sup></b>			3				<b>2.9</b>

## CHANNEL CHARACTERISTICS

	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
<b>D1</b>					1.5		<b>1.4</b>
<b>D2</b>							<b>NA</b>

Graded Scoring System A=4 B=3 C=2 D=1

# ARROYO ASSESSMENT

<b>Arroyo Name:</b>	Arroyo Rosario	<b>Infrastructure Damage/Risk Avg:</b>	<b>2</b>	Date:	12/4/2016
<b>Arroyo Segment:</b>	E	<b>Channel Character/Drainage Avg:</b>	<b>2</b>	Surveyed by:	KJK
<b>Start point:</b>	Rio Grand Street				
<b>End point:</b>	Paseo de Peralta				

## INFRASTRUCTURE RISKS

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
<b>E1</b>							<b>NA</b>
<b>E2</b>			1				<b>NA</b>
<b>E3<sup>10</sup></b>			1				<b>NA</b>
<b>E4</b>		1.5	3				<b>2</b>
<b>E5<sup>11</sup></b>						1	<b>0.9</b>
<b>E6</b>			3				<b>2.9</b>
<b>E7</b>		2.5	2.5				<b>2.2</b>

## CHANNEL CHARACTERISTICS

	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
<b>E1</b>							<b>NA</b>
<b>E21<sup>12</sup></b>						3	<b>2.9</b>
<b>E3</b>							<b>NA</b>
<b>E4</b>							<b>NA</b>
<b>E5</b>							<b>NA</b>
<b>E6</b>							<b>NA</b>
<b>E7<sup>13</sup></b>						1	<b>1</b>

Graded Scoring System A=4 B=3 C=2 D=1

## ARROYO ASSESSMENT

### FOOTHILLS

- 1 Arroyo assessment starts at culvert outlet
- 2 Rip rap perimeter eroded , 2.5 ft. No structural settling.
- 3 Channel constricted not incised.
- 4 Collapsed banks ,tree dam /possible water backup and lead to future bank erosion.
- 5 Collapsed banks and fallen trees will create dams.
- 6 Cemetery retaining wall behind vertical walls
- 7 Culverts fine high erosion impact/ rain garden possible location
- 8 Hard right turn.
- 9 No change in culverts since 2012
- 10 Box culvert filled with sediment approximately 2.5 ft. head space left .
- 11 Possibly gas line locator
- 12 Rip rap to left of culvert deteriorated
- 13 Behind recent concrete culvert: foot traffic impacts soil stability around poured footing

Graded Scoring System A=4 B=3 C=2 D=1

## Arroyo Documentation

<b>Arroyo Name:</b>	Arroyo Saiz	<b>Infrastructure Damage/Risk Avg :</b>	<b>1.7</b>	Date:	4/5/2016
<b>Arroyo Segment:</b>	A	<b>Channel Character/Drainage Avg:</b>	<b>1</b>	Surveyed by:	KJK TR
<b>Start point:</b>	Hyde Park Rd. / Gonzalez Rd.				
<b>End point:</b>	Santa Fe River				

### INFRASTRUCTURE RISKS

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
A1 <sup>1</sup>		2					1.9
A2 <sup>2</sup>		1.5					1.4
A3 <sup>3</sup>							NA
A4							NA
A5			1				NA
A6 <sup>4</sup>		2					1.9

### CHANNEL CHARACTERISTICS

	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
A1							NA
A2							NA
A3							NA
A4 <sup>5</sup>	1.5		2		1		1
A5							NA
A6			1				0.9

Graded Scoring System A=4 B=3 C=2 D=1



# Arroyo Documentation

## FOOTNOTES

- 1 Bank adjacent to Hyde Park Rd.
- 2 Erosion impact on arroyo adjacent to Hyde park road ~ 7 feet from bank to shoulder
- 3 Erosion impact on arroyo adjacent to Hyde park road ~ 7 feet from bank to shoulder
- 4 Erosion adjacent to shoulder of bank
- 5 Incised and constricted area starts below earth works rain garden.

## Arroyo Documentation

<b>Arroyo Name:</b>	Arroyo Mora	Infrastructure Damage/Risk Avg :	<b>NA</b>	Date:	3/29/2016
<b>Arroyo Segment:</b>	A	Channel Character/Drainage Avg:	<b>1.9</b>	Surveyed by:	KJK REJ
<b>Start point:</b>	South of Calle Militar				
<b>End point:</b>	Santa Fe River				

### INFRASTRUCTURE RISKS

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
<b>A1</b>							<b>NA</b>

### CHANNEL CHARACTERISTICS

	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
<b>A1</b>			2				<b>1.9</b>

Graded Scoring System A=4 B=3 C=2 D=1

## Arroyo Documentation

<b>Arroyo Name:</b>	Arroyo Cabra	<b>Infrastructure Damage/Risk Avg :</b>	<b>NA</b>	Date:	3/29/2016
<b>Arroyo Segment:</b>	A	<b>Channel Character/Drainage Avg:</b>	<b>1.9</b>	Surveyed by:	KJK REJ
<b>Start point:</b>	Apodaca Hill				
<b>End point:</b>	Santa Fe River				

### INFRASTRUCTURE RISKS

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
<b>A1</b>							<b>NA</b>

### CHANNEL CHARACTERISTICS

	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
<b>A1</b>	3		2			2	<b>1.9</b>

<sup>1</sup> Rip rap deteriorating; supporting soil absent

Graded Scoring System A=4 B=3 C=2 D=1

## Arroyo Documentation

<b>Arroyo Name:</b>	Arroyo en Medio	<b>Infrastructure Damage/Risk Avg :</b>	<b>1.4</b>	Date:	3/31/2016
<b>Arroyo Segment:</b>	A	<b>Channel Character/Drainage Avg:</b>	<b>1.3</b>	Surveyed by:	KJK REJ
<b>Start point:</b>	Old Santa Fe Trail Bridge				
<b>End point:</b>	Arroyo Chamisos at Yucca Street				

### INFRASTRUCTURE RISKS

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
A1		3					2.9
A2		1.5					1.4
A3						1	0.9
A4a						1	0.6
A4b							NA
A4c			1				0.9
A4d <sup>1</sup>		1					0.9
A4g			1				0.9
A5		1.5					1.4
A6 <sup>2</sup>							NA
A7 <sup>3</sup>							NA
A8 <sup>4</sup>							NA
A9						1	0.9
A10							NA
A11							NA
A12		3					2.9

Graded Scoring System A=4 B=3 C=2 D=1

## Arroyo Documentation

	CHANNEL CHARACTERISTICS						
	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
A1						2	1.9
A2 <sup>5</sup>	2					2	1.7
A3							NA
A4a							NA
A4b						1	0.9
A4c							NA
A4d							NA
A4e	1				1		0.7
A4g	1					1	0.7
A5						1.5	1.4
A6							NA
A7							NA
A8							NA
A9							NA
A10						2.5	2.4
A11 <sup>6</sup>						1	0.9
A12							NA

Graded Scoring System A=4 B=3 C=2 D=1

# Arroyo Documentation

## FOOTNOTES

- 1 Endangered infrastructure
- 2 Questionable fence built across arroyo
- 3 Questionable culvert
- 4 Questionable culvert
- 5 Adjacent channel bypassing rip rap which is undercut.
- 6 Rip rap mat gone.

## Arroyo Documentation

<b>Arroyo Name:</b>	Arroyo Ancha	<b>Infrastructure Damage/Risk Avg :</b>	<b>0.9</b>	Date:	4/14/2016
<b>Arroyo Segment:</b>	A	<b>Channel Character/Drainage Avg:</b>	<b>NA</b>	Surveyed by:	KJK REJ
<b>Start point:</b>	200 feet below Ten Thousand Waves on Hyde Park Rd				
<b>End point:</b>	Cañada Sur				

### INFRASTRUCTURE RISKS

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
A1							NA
A2		1					0.9
A3		1					0.9

### CHANNEL CHARACTERISTICS

	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
A1							NA
A2							NA
A3							NA

**Graded Scoring System A=4 B=3 C=2 D=1**

## Arroyo Documentation

<b>Arroyo Name:</b>	Arroyo Ancha	<b>Infrastructure Damage/Risk Avg:</b>	<b>1.2</b>	Date:	4/14/2016
<b>Arroyo Segment:</b>	B	<b>Channel Character/Drainage Avg:</b>	<b>0.3</b>	Surveyed by:	KJK REJ
<b>Start point:</b>	Cañada Sur				
<b>End point:</b>	Santa Fe River				

### INFRASTRUCTURE RISKS

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
<b>B1</b>							<b>NA</b>
<b>B2</b>	2.5				1		<b>1.5</b>
<b>B3</b>					1		<b>0.9</b>
<b>B4</b>	2.5				1		<b>1.5</b>
<b>B5</b>					2		<b>1.9</b>
<b>B6</b>		1.5					<b>1.4</b>

### CHANNEL CHARACTERISTICS

	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
<b>B1</b>					1.5	1	<b>1</b>
<b>B2</b>							<b>NA</b>
<b>B3</b>							<b>NA</b>
<b>B4</b>							<b>NA</b>
<b>B5</b>							<b>NA</b>
<b>B6</b>							<b>NA</b>

**Graded Scoring System A=4 B=3 C=2 D=1**



## Arroyo Documentation

<b>Arroyo Name:</b>	Arroyo Ancha	Date:	4/14/2016
<b>Arroyo Segment:</b>	B continued	Surveyed by:	KJK REJ
<b>Start point:</b>			
<b>End point:</b>	Santa Fe River		

### INFRASTRUCTURE RISKS

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
<b>B7</b>							<b>NA</b>
<b>B8</b>							<b>NA</b>
<b>B9</b>	2.5						<b>2.4</b>
<b>B10</b>					1.5		<b>1.1</b>
<b>B11</b>		1					<b>0.9</b>

### CHANNEL CHARACTERISTICS

	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
<b>B7</b>						1.5	<b>1.4</b>
<b>B8</b>							<b>NA</b>
<b>B9</b>							<b>NA</b>
<b>B10</b>							<b>NA</b>
<b>B11</b>		1					<b>0.9</b>

**Graded Scoring System A=4 B=3 C=2 D=1**

## Arroyo Documentation

<b>Arroyo Name:</b>	Arroyo Upper Pinos A	Infrastructure Damage/Risk Avg :	<b>NA</b>	Date:	5/4/2016
<b>Arroyo Segment:</b>	A	Channel Character/Drainage Avg:	<b>0.9</b>	Surveyed by:	KJK REJ
<b>Start point:</b>	Camino Corrales/Lejo				
<b>End point:</b>	Galisteo Street				

### INFRASTRUCTURE RISKS

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
<b>A1</b>							<b>NA</b>

### CHANNEL CHARACTERISTICS

	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
<b>A1</b>	1						<b>0.9</b>

Graded Scoring System A=4 B=3 C=2 D=1

## Arroyo Documentation

<b>Arroyo Name:</b>	Upper Pinos B	<b>Infrastructure Damage/Risk Avg :</b>	<b>2</b>	Date:	5/4/2016
<b>Arroyo Segment:</b>	A	<b>Channel Character/Drainage Avg:</b>	<b>1.1</b>	Surveyed by:	KJK REJ
<b>Start point:</b>	Camino Corrales/Lejano				
<b>End point:</b>	Don Gaspar Street				

### INFRASTRUCTURE RISKS

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
<b>A1<sup>1</sup></b>		2					<b>1.9</b>
<b>A2<sup>2</sup></b>		1.5					<b>1.4</b>
<b>A3</b>			2.5				<b>2.4</b>
<b>A4</b>			2.5				<b>2.4</b>
<b>A5</b>							<b>NA</b>

### CHANNEL CHARACTERISTICS

	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
<b>A1</b>							<b>NA</b>
<b>A2</b>					1.5		<b>1.4</b>
<b>A3</b>							<b>NA</b>
<b>A4</b>			1				<b>0.9</b>
<b>A5</b>						1	<b>0.9</b>

Graded Scoring System A=4 B=3 C=2 D=1

# Arroyo Documentation

## FOOTNOTES

- 1 Unauthorized road
- 2 Near shoulder of road

## Arroyo Documentation

<b>Arroyo Name:</b>	Lower Pinos	<b>Infrastructure Damage/Risk Avg :</b>	<b>1.4</b>	Date:	2/1/2016
<b>Arroyo Segment:</b>	Ditch	<b>Channel Character/Drainage Avg:</b>	<b>1.8</b>	Surveyed by:	KJK JL
<b>Start point:</b>	St. Michaels				
<b>End point:</b>	Siringo Road				

### INFRASTRUCTURE RISKS

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
<b>A1</b>			1				<b>0.9</b>
<b>A2</b>			2				<b>1.9</b>
<b>A3</b>							<b>NA</b>

### CHANNEL CHARACTERISTICS

	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
<b>A1</b>							<b>NA</b>
<b>A2</b>			2			3	<b>2.2</b>
<b>A3</b>	1.5					1.5	<b>1.2</b>

Graded Scoring System A=4 B=3 C=2 D=1

## Arroyo Documentation

Arroyo Name:	Lower Pinos	Infrastrucure Damage/Risk Avg:	2.3	Date:	1/28/2016
	B	Channel Character/Drainage Avg:	2.5	Surveyed by:	KJK JL
Start point:	St. Francis Drive				
End point:	6th Street				
INFRASTRUCTURE RISKS					

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
B1		2.5					2.4
B2 <sup>1</sup>		2.5					2.4
B3 <sup>2</sup>		2					1.9
B4 <sup>3</sup>						2.5	2.4
B5 <sup>4</sup>		3					2.9
B6							NA
B7 <sup>5</sup>		1.5	2			1.5	1.2
B8 <sup>6</sup>						3	2.9
B9							NA

### CHANNEL CHARACTERISTICS

	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
B1				3	3		2.7
B2			3	2.5			2.5
B3							NA
B4							NA
B5				3			2.9
B6						2	1.9
B7							2.3
B8							NA
B9 <sup>7</sup>	1		1		1		NA

Graded Scoring System A=4 B=3 C=2 D=1

## Arroyo Documentation

<b>Arroyo Name:</b>	Lower Pinos	<b>Infrastructure Damage/Risk Avg:</b>	<b>1.9</b>	Date:	1/13/2016
<b>Arroyo Segment:</b>	C	<b>Channel Character/Drainage Avg:</b>	<b>1.9</b>	Surveyed by:	KJK REJ
<b>Start point:</b>	St. Michaels Drive				
<b>End point:</b>	Camino Carlos Rey				

### INFRASTRUCTURE RISKS

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
<b>C1<sup>8</sup></b>						2	<b>1.9</b>
<b>C2</b>							<b>NA</b>

### CHANNEL CHARACTERISTICS

	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
<b>C1</b>							<b>NA</b>
<b>C2</b>						2	<b>1.9</b>

Graded Scoring System A=4 B=3 C=2 D=1

## Arroyo Documentation

<b>Arroyo Name:</b>	Lower Pinos	<b>Infrastructure Damage/Risk :</b>	<b>2.7</b>	Date:	1/13/2016
<b>Arroyo Segment:</b>	D	<b>Channel Character/Drainage:</b>	<b>2.2</b>	Surveyed by:	KJK JL
<b>Start point:</b>	Camino Carlos Rey				
<b>End point:</b>	Richards Avenue				

### INFRASTRUCTURE RISKS

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
D1							NA
D2							NA
D3		3	3				2.7
D4							NA
D5			3				2.9
D6		3					2.9
D7		2.5		3			2.5
D8 <sup>9</sup>							NA
D9 <sup>10</sup>		2.5					2.4
D10							NA

### CHANNEL CHARACTERISTICS

	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
D1 <sup>11</sup>	1.5						2.6
D2 <sup>12</sup>			1			1	0.7
D3		3					2.9
D4 <sup>13</sup>						2.5	2.4
D5	1.5						1.4
D6					3		2.9
D7 <sup>14</sup>	2.5			3		3	2.4
D8						1.5	1.4
D9				3		3	2.7
D10 <sup>15</sup>				3		3	2.7

Graded Scoring System A=4 B=3 C=2 D=1



## Arroyo Documentation

<b>Arroyo Name:</b>	Lower Pinos	<b>Infrastructure Damage/Risk Avg :</b>	<b>1.9</b>	Date:	1/13/2016
<b>Arroyo Segment:</b>	E	<b>Channel Character/Drainage Avg:</b>	<b>1.6</b>	Surveyed by:	KJK JL
<b>Start point:</b>	Richards Avenue				
<b>End point:</b>	Arroyo de los Chamisos				

### INFRASTRUCTURE RISKS

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
E1		2					1.9
E2							NA
E3							NA
E4							NA
E5			1				0.9
E6							NA
E7 <sup>16</sup>						2	1.9
E8			2				1.9
E9						3	2.9
E10 <sup>17</sup>						2	1.9

### CHANNEL CHARACTERISTICS

	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
E1				2	2		1.7
E2 <sup>18</sup>	2					1	1.2
E3 <sup>19</sup>						1	0.9
E4 <sup>20</sup>	1					1.5	1
E5							NA
E6				2	1.5		1.5
E7							NA
E8 <sup>21</sup>	2			2.5	2.5		1.9
E9 <sup>22</sup>	2			3			2.2
E10				2.5			2.4

Graded Scoring System A=4 B=3 C=2 D=1

# Arroyo Documentation

## FOOTNOTES

- 1 Undercut bank.
- 2 Tributary stream eroding at junction near road and culvert
- 3 Exposed pipe
- 4 Wooden bank stabilization structure slightly undercut
- 5 bank failure above culvert threatening manhole
- 6 exposed sewer outlet
- 7 severe bank erosion
- 8 Pipe is cracking and exposed.
- 9 Uprooted gabion mat obstructing channel
- 10 Left bank of structure is eroding
- 11 Channel has incised below gabion mat.
- 12 Shopping cart obstruction.
- 13 concrete debris obstructing channel.
- 14 Channel has incised below gabion mat.
- 15 Shopping cart obstruction.
- 16 Exposed pipe
- 17 Damaged pipe or well casing. Arroyo encroaching on fence line.
- 18 Gabion wall structure failing.
- 19 Gabion mat is destroyed and remnants are in middle of channel.
- 20 Outfall is failing and channel is scoured below structure.
- 21 Section with endangered vertical banks and culvert due to hillslope failure.
- 22 End of E 9 tributary junction. Incising at junction.

## Arroyo Documentation

<b>Arroyo Name:</b>	Arroyo Mascaras	<b>Infrastructure Damage/Risk Avg :</b>	<b>0.9</b>	Date:	2/26/2016
<b>Arroyo Segment:</b>	A	<b>Channel Character/Drainage Avg:</b>	<b>1.9</b>	Surveyed by:	KJK TR
<b>Start point:</b>	Bishop's Lodge Road				
<b>End point:</b>	Arroyo Barranca				

### INFRASTRUCTURE RISKS

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
A1						1	0.9
A2							NA
A3							NA

### CHANNEL CHARACTERISTICS

	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
A1							NA
A2						2.5	2.4
A3						1.5	1.4

Graded Scoring System A=4 B=3 C=2 D=1

## Arroyo Documentation

<b>Arroyo Name:</b>	Arroyo Mascaras	<b>Infrastructure Damage/Risk :</b>	<b>0.9</b>	Date:	2/26/2016
<b>Arroyo Segment:</b>	C	<b>Channel Character/Drainage:</b>	<b>0.7</b>	Surveyed by:	KJK TR
<b>Start point:</b>	Arroyo Barranca				
<b>End point:</b>	Old Taos Highway				

### INFRASTRUCTURE RISKS

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
<b>C1<sup>1</sup></b>					1		<b>0.9</b>

### CHANNEL CHARACTERISTICS

	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
<b>C1</b>	1					1	<b>0.7</b>

Graded Scoring System A=4 B=3 C=2 D=1

## Arroyo Documentation

<b>Arroyo Name:</b>	Arroyo Mascaras	Infrastructure Damage/Risk Avg :	<b>NA</b>	Date:	2/26/2016
<b>Arroyo Segment:</b>	D	Channel Character/Drainage Avg:	<b>1.2</b>	Surveyed by:	KJK TR
<b>Start point:</b>	Old Taos Highway				
<b>End point:</b>	Paseo de Peralta Culvert				

### INFRASTRUCTURE RISKS

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
<b>D1<sup>2</sup></b>							<b>NA</b>
<b>D2</b>							<b>NA</b>
<b>D3</b>							<b>NA</b>
<b>D4</b>							<b>NA</b>

### CHANNEL CHARACTERISTICS

	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
<b>D1</b>							<b>NA</b>
<b>D2</b>						2	<b>1.9</b>
<b>D3<sup>3</sup></b>						1	<b>0.9</b>
<b>D4<sup>4</sup></b>						1	<b>0.9</b>

Graded Scoring System A=4 B=3 C=2 D=1

# Arroyo Documentation

## FOOTNOTES

- 1 Extensive rebar exposed underneath box culvert support at Old Taos Hwy
- 2 Possible location for storm water capture
- 3 Possible location for storm water capture
- 4 Storm water eroding bank. Locate water capturing system here.

## Arroyo Documentation

<b>Arroyo Name:</b>	Arroyo Piedra West	<b>Infrastructure Damage/Risk Avg :</b>	<b>1.1</b>	Date:	4/26/2016
<b>Arroyo Segment:</b>	<b>B</b>	<b>Channel Character/Drainage Avg:</b>	<b>1.1</b>	Surveyed by:	KJK REJ
<b>Start point:</b>	Brownell - Howland				
<b>End point:</b>	Arroyo Mascaras @ Hyde Park Road				

### INFRASTRUCTURE RISKS

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
<b>A1<sup>1</sup></b>							<b>NA</b>
<b>A2<sup>2</sup></b>							<b>NA</b>
<b>A3<sup>3</sup></b>		1.5					<b>1.4</b>
<b>A4</b>		1					<b>0.9</b>
<b>A5</b>						1	<b>0.9</b>
<b>A6</b>						1	<b>0.9</b>
<b>A7</b>		2					<b>1.9</b>
<b>A8</b>							<b>NA</b>
<b>A9</b>						1	<b>0.9</b>
<b>A10</b>		1.5				1	<b>1</b>
<b>A11<sup>4</sup></b>		2	1				<b>1.2</b>
<b>A12<sup>5</sup></b>			1				<b>0.9</b>
<b>A13</b>		1					<b>0.9</b>
<b>A14</b>		1					<b>0.9</b>

Graded Scoring System A=4 B=3 C=2 D=1

## Arroyo Documentation

	CHANNEL CHARACTERISTICS						
	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
A1							NA
A2							NA
A3							NA
A4							NA
A5							NA
A6							NA
A7						2	1.9
A8							NA
A9							NA
A10							NA
A11							NA
A12							NA
A13	1		1				0.7
A14			1		1		0.7

Graded Scoring System A=4 B=3 C=2 D=1



## Arroyo Documentation

<b>Arroyo Name:</b>	Arroyo Piedra East	Infrastructure Damage/Risk Avg :	<b>NA</b>	Date:	4/28/2016
<b>Arroyo Segment:</b>	<b>A</b>	Channel Character/Drainage Avg:	<b>0.9</b>	Surveyed by:	KJK REJ
<b>Start point:</b>	Calle Conejo				
<b>End point:</b>	Camio Real				

### INFRASTRUCTURE RISKS

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
<b>A1</b>							<b>NA</b>

### CHANNEL CHARACTERISTICS

	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
<b>A1</b>	1						<b>0.9</b>

#### FOOTNOTES

- 1 Fence blocking access
- 2 Fence obstructing flow
- 3 Erosion undercutting culverts
- 4 Displaced sediment
- 5 Filling up with sediment

Graded Scoring System A=4 B=3 C=2 D=1

## Arroyo Documentation

<b>Arroyo Name:</b>	Arroyo Foothills	<b>Infrastructure Damage/Risk Avg :</b>	<b>1.2</b>	Date:	4/21/2016
<b>Arroyo Segment:</b>	A	<b>Channel Character/Drainage Avg:</b>	<b>1.2</b>	Surveyed by:	KJK REJ
<b>Start point:</b>	Old Santa Fe Trail				
<b>End point:</b>	Arroyo de los Chamisos				

### INFRASTRUCTURE RISKS

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
<b>A1</b>							<b>NA</b>
<b>A2<sup>1</sup></b>						1	<b>0.9</b>
<b>A3<sup>2</sup></b>							<b>NA</b>
<b>A4</b>		1					<b>0.9</b>
<b>A5</b>			1				<b>0.9</b>
<b>A6</b>						2	<b>1.9</b>
<b>A7</b>						1.5	<b>1.4</b>
<b>A8</b>		1				1	<b>0.7</b>
<b>A9</b>							<b>NA</b>
<b>A10</b>						1.5	<b>1.4</b>
<b>A11</b>			2				<b>1.9</b>
<b>A12</b>			1				<b>0.9</b>

Graded Scoring System A=4 B=3 C=2 D=1

## Arroyo Documentation

	CHANNEL CHARACTERISTICS						
	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
A1 <sup>3</sup>	2		2			2.5	1.7
A2							NA
A3							NA
A4	1					1.5	1
A5							NA
A6							NA
A7							NA
A8	1.5				1	2.5	1.2
A10					1	1	0.7
A11	1				2		1.2
A12							NA

### FOOTNOTES

- 1 Cables and pipe captured in one photo
- 2 Questionable drain pipes leading from private homes to empty into arroyo.
- 3 Rip rap sagging.

Graded Scoring System A=4 B=3 C=2 D=1

## Arroyo Documentation

<b>Arroyo Name:</b>	Arroyo Cloudstone	Infrastructure Damage/Risk Avg : <b>0.8</b>	Date: 5/4/2016
<b>Arroyo Segment:</b>	A	Channel Character/Drainage Avg: <b>0.5</b>	Surveyed by: KJK REJ
<b>Start point:</b>	Old Santa Fe Trail		
<b>End point:</b>	Old Pecos Trail		

### INFRASTRUCTURE RISKS

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
<b>A1<sup>1</sup></b>			1				<b>0.9</b>
<b>A2<sup>2</sup></b>		1					<b>0.9</b>
<b>A3</b>		1				1	<b>0.7</b>
<b>A4</b>							<b>NA</b>

### CHANNEL CHARACTERISTICS

	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
<b>A1</b>			1				<b>NA</b>
<b>A2</b>	1		1	1.5	1.5		<b>0.6</b>
<b>A3<sup>3</sup></b>	1		1	1.5		1	<b>0.5</b>
<b>A4</b>	1		1	1	1		<b>0.4</b>

Graded Scoring System A=4 B=3 C=2 D=1

## Arroyo Documentation

Arroyo Name:	Arroyo Cloudstone	Infrastructure Damage/Risk Avg: 1.4	Date: 5/4/2016
	Arroyo Segment: B	Channel Character/Drainage Avg: 1	Surveyed by: KJK REJ
Start point:	Old Pecos Trail		
End point:	Arroyo de los Chamisos		
INFRASTRUCTURE RISKS			

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
<b>B1</b>		1.5					<b>1.4</b>
<b>B2</b>		1.5					<b>1.4</b>
<b>B3</b>							<b>NA</b>
<b>B4</b>							<b>NA</b>
<b>B5</b>		1					<b>0.9</b>
<b>B6</b>			2				<b>1.9</b>

### CHANNEL CHARACTERISTICS

	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
<b>B1</b>						1.5	<b>1.4</b>
<b>B2<sup>4</sup></b>				2.5			<b>2.4</b>
<b>B3<sup>5</sup></b>			1	1.5			<b>1</b>
<b>B4<sup>6</sup></b>			1	1	2.5		<b>NA</b>
<b>B5<sup>7</sup></b>							<b>NA</b>
<b>B6</b>	1		1	1	1		<b>0.4</b>

Graded Scoring System A=4 B=3 C=2 D=1

# Arroyo Documentation

## FOOTNOTES

- 1 Fence created obstruction by trapping debris against fence.
- 2 Collapsing bank beneath private property.
- 3 Gabion basket tumbled into arroyo bed creating obstruction
- 4 Fallen fence obstructing arroyo.
- 5 Tree obstruction
- 6 Large tree obstructing flow.
- 7 Tree obstructing channel

## Arroyo Documentation

<b>Arroyo Name:</b>	Arroyo Nopal	Infrastructure Damage/Risk Avg : <b>1.9</b>	Date	4/7/2016
<b>Arroyo Segment:</b>	A	Channel Character/Drainage Avg: <b>2.4</b>	Surveyed by:	KJK REJ
<b>Start point:</b>	East of Calle Nopal			
<b>End point:</b>	W. Alameda Rd			

### INFRASTRUCTURE RISKS

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
<b>A1<sup>1</sup></b>						2	<b>1.9</b>
<b>A2</b>							<b>NA</b>
<b>A3</b>							<b>NA</b>

### CHANNEL CHARACTERISTICS

	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
<b>A1</b>							<b>NA</b>
<b>A2<sup>2</sup></b>							<b>NA</b>
<b>A3</b>	2.5						<b>2.4</b>

#### FOOTNOTES

- 1 run off from culvert may impact home; near utility.  
 2 Storm water backing up behind home.

Graded Scoring System A=4 B=3 C=2 D=1

## Arroyo Documentation

<b>Arroyo Name:</b>	Arroyo Torreon	<b>Infrastructure Damage/Risk Avg :</b>	<b>1.2</b>	Date:	4/7/2016
<b>Arroyo Segment:</b>	A	<b>Channel Character/Drainage Avg:</b>	<b>1.1</b>	Surveyed by:	KJK REJ
<b>Start point:</b>	E of Buckman Rd				
<b>End point:</b>	Camino de las Crucitas				

### INFRASTRUCTURE RISKS

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
<b>A1<sup>1</sup></b>		1.5					<b>1.4</b>
<b>A2</b>			1				<b>0.9</b>

### CHANNEL CHARACTERISTICS

	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
<b>A1</b>		1.5			1.5		<b>1.2</b>
<b>A2<sup>2</sup></b>			1				<b>0.9</b>

Graded Scoring System A=4 B=3 C=2 D=1



## Arroyo Documentation

<b>Arroyo Name:</b>	Arroyo Torreon	<b>Infrastructure Damage/Risk Avg:</b>	<b>0.9</b>	Date:	4/7/2016
<b>Arroyo Segment:</b>	B	<b>Channel Character/Drainage Avg:</b>	<b>0.7</b>	Surveyed by:	KJK REJ
<b>Start point:</b>	Camino de las Crucitas				
<b>End point:</b>	Santa Fe River				

### INFRASTRUCTURE RISKS

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
<b>B1</b>		2.5	1.5				<b>1.7</b>
<b>B2</b>			1				<b>0.9</b>
<b>B3</b>							<b>NA</b>
<b>B4</b>		2					<b>1.9</b>
<b>B5</b>		1					<b>0.9</b>

### CHANNEL CHARACTERISTICS

	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
<b>B1</b>			1	1.5			<b>1</b>
<b>B2</b>			1				<b>0.9</b>
<b>B3</b>	1		1		1	2	<b>0.6</b>
<b>B4</b>	2			1	1		<b>0.9</b>
<b>B5</b>			1	1	1		<b>0.5</b>

Graded Scoring System A=4 B=3 C=2 D=1

## Arroyo Documentation

<b>Arroyo Name:</b>	Arroyo Torreon	Date:	4/7/2016
<b>Arroyo Segment:</b>	B continued	Surveyed by:	KJK REJ
<b>Start point:</b>			
<b>End point:</b>	Santa Fe River		

### INFRASTRUCTURE RISKS

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
<b>B6</b>							<b>NA</b>
<b>B7<sup>3</sup></b>		1					<b>0.9</b>
<b>B8<sup>4</sup></b>		1					<b>0.9</b>
<b>B9<sup>5</sup></b>		1					<b>0.9</b>
<b>B10</b>		1					<b>0.9</b>
<b>B11</b>		2.5					<b>0.9</b>

### CHANNEL CHARACTERISTICS

	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
<b>B6</b>							<b>NA</b>
<b>B7</b>							<b>NA</b>
<b>B8</b>							<b>NA</b>
<b>B9</b>					1		<b>0.9</b>
<b>B10</b>	2				1.5		<b>1.5</b>
<b>B11</b>						1.5	<b>1.4</b>

Graded Scoring System A=4 B=3 C=2 D=1

# Arroyo Documentation

## FOOTNOTES

- 1 Trash
- 2 Culvert restricted by sediment
- 3 3.5 feet between road shoulder and arroyo bank
- 4 Endangered property line.
- 5 Arroyo bank next to road shoulder.

Graded Scoring System A=4 B=3 C=2 D=1

## Arroyo Documentation

<b>Arroyo Name:</b>	Arroyo Chaparral	Infrastructure Damage/Risk Avg: <b>1.7</b>	Date: 4/5/2016
<b>Arroyo Segment:</b>	B	Channel Character/Drainage Avg: <b>2</b>	Surveyed by: KJK REJ
<b>Start point:</b>	Galisteo Rd		
<b>End point:</b>	Esplendor St		

### INFRASTRUCTURE RISKS

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
<b>B1</b>							<b>NA</b>
<b>B2</b>		2.5					<b>2.4</b>
<b>B3</b>		1.5					<b>1.4</b>
<b>B4<sup>1</sup></b>		1.5					<b>0</b>
<b>B5<sup>2</sup></b>		1.5					<b>0</b>
<b>B6</b>		2					<b>1.9</b>

### CHANNEL CHARACTERISTICS

	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
<b>B1</b>						1	<b>0.9</b>
<b>B2</b>			3				<b>2.9</b>
<b>B3</b>		3	3				<b>2.7</b>
<b>B4</b>	3		3		3	2	<b>2.1</b>
<b>B5</b>	2		2.5		2	2	<b>1.5</b>
<b>B6<sup>3</sup></b>	2		2		2.5		<b>2</b>

Graded Scoring System A=4 B=3 C=2 D=1

## Arroyo Documentation

<b>Arroyo Name:</b>	Arroyo Chaparral	<b>Infrastructure Damage/Risk Avg:</b>	<b>0.9</b>	Date:	4/5/2016
<b>Arroyo Segment:</b>	C	<b>Channel Character/Drainage Avg:</b>	<b>1</b>	Surveyed by:	KJK REJ
<b>Start point:</b>	Esplendor St				
<b>End point:</b>	Arroyo de los Chamisos				

### INFRASTRUCTURE RISKS

Trail point	Trail Deterioration	Bank Deterioration	Damaged/ Restricted Culverts	Foot/Bicycle Bridge	Vehicle Bridge	Endangered Utilities	Overall Score
C1							NA
C2		1					0.9
C3 <sup>4</sup>		1				1	0.7
C4		1					0.9
C5		1					0.9
C6	1						0.9

### CHANNEL CHARACTERISTICS

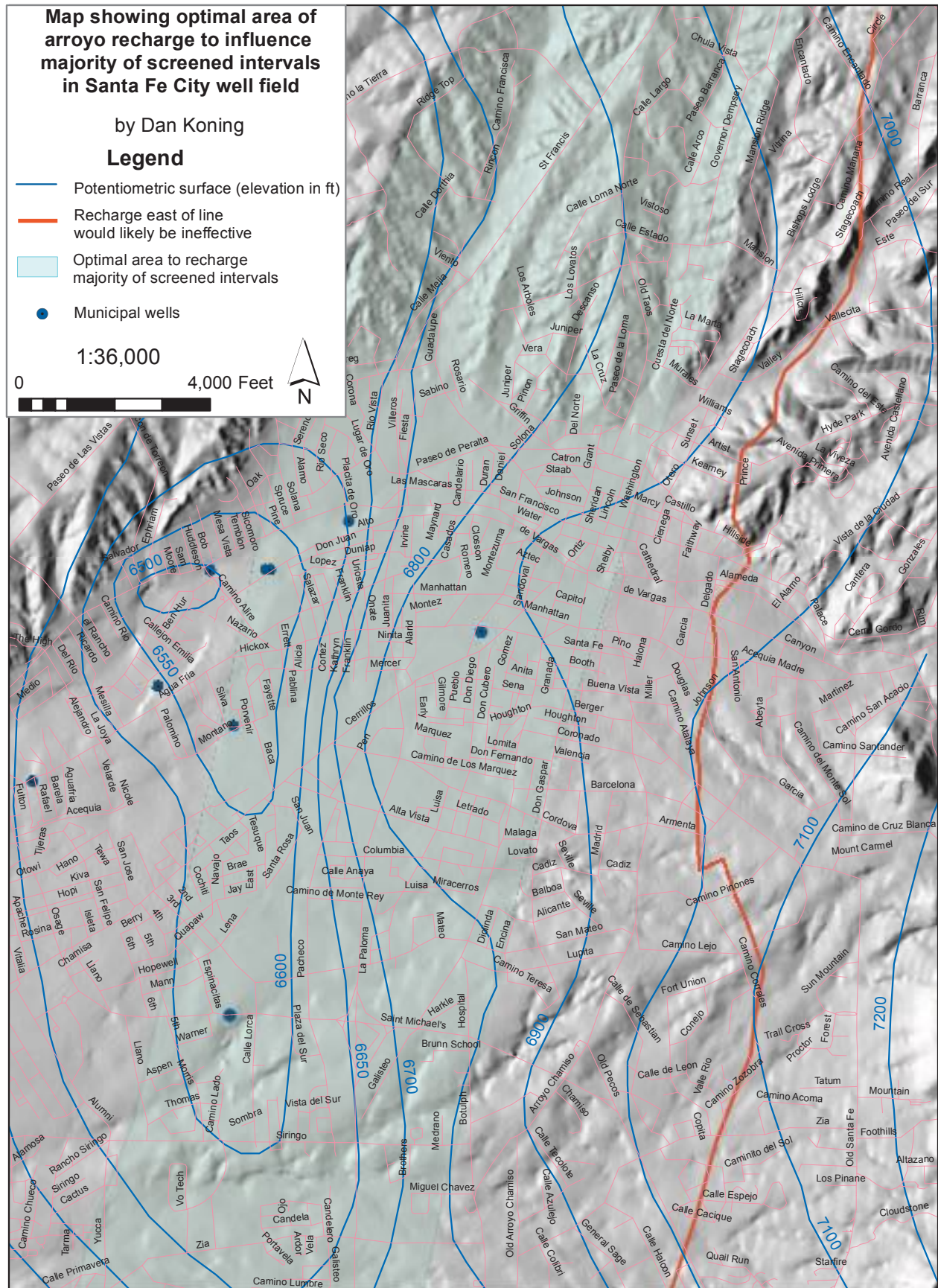
	Incised channel	Incised + braided	Constricted	Collapsed Banks	Vertical Banks	Rip Rap	Overall Score
C1	1						0.9
C2	1		1		1	2	0.6
C3	1		1	1	1		0.9
C4	1.5		1		1.5		0.9
C5	1.5		1.5		1.5		1.4
C6 <sup>5</sup>	1.5		1.5		1.5		1

Graded Scoring System A=4 B=3 C=2 D=1

## **Arroyo Documentation**

- 1 Concrete check dam and spillway eroding
- 2 Unstable handmade foot bridge
- 3 corridor of bank erosion and incision between b5 to b6
- 4 sewage actively seeping into arroyo
- 5 Incised corridor from C5-C6

Graded Scoring System A=4 B=3 C=2 D=1



## ACKNOWLEDGEMENTS

The successful completion of Santa Fe Watershed Association's Arroyo Threat Assessment Surveys of 15 Major Arroyos in the Santa Fe Watershed project would not be possible without the support of many accomplished, talented, and enthusiastic people.

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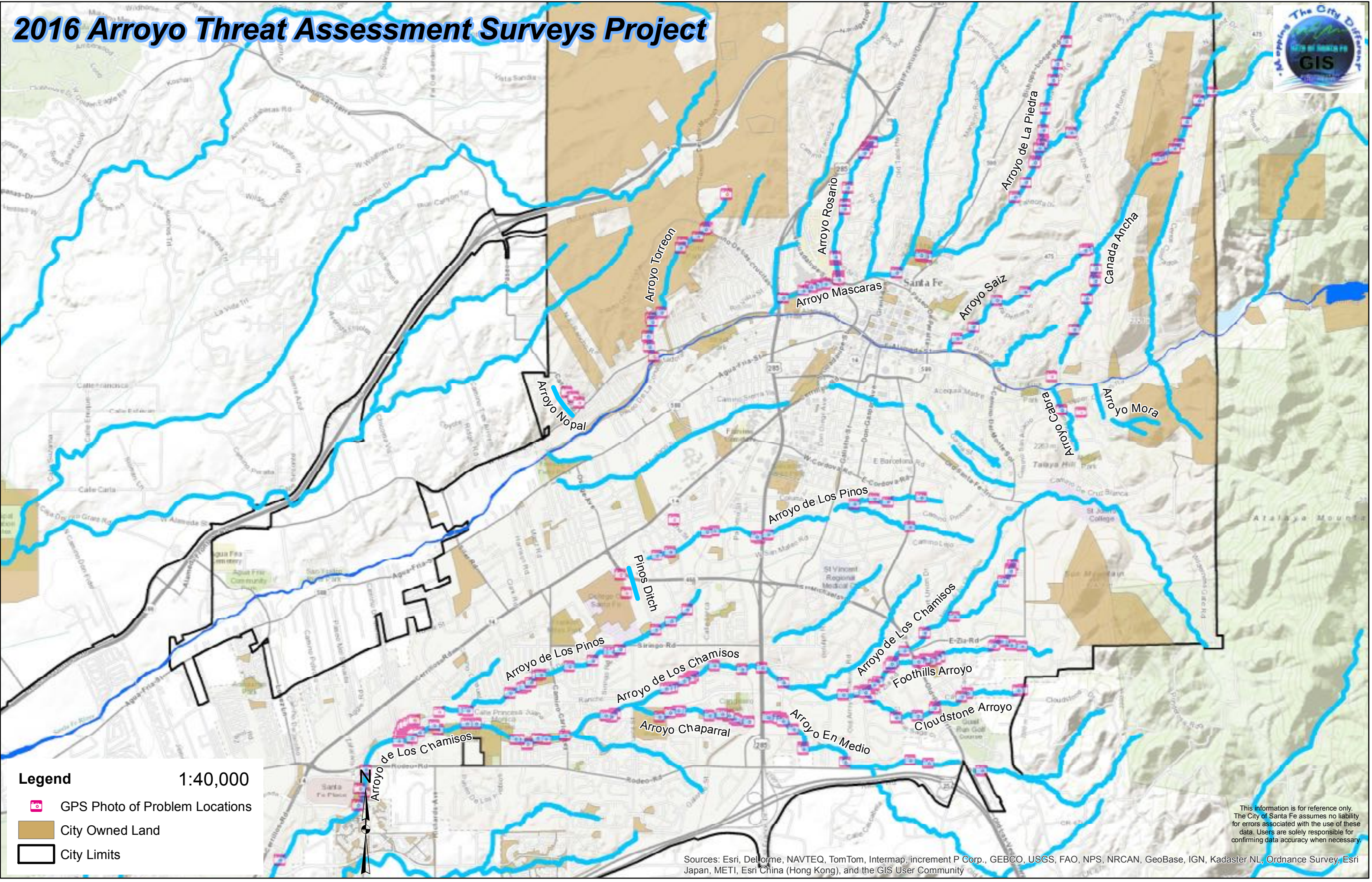
And finally, with much gratitude, we would like to thank the City of Santa Fe's GIS analyst, David Barsanti, for his constructive guidance and for creating the interactive visual map.

*Keely Jackson-Kennemore*





# 2016 Arroyo Threat Assessment Surveys Project



**Legend**

GPS Photo of Problem Locations

City Owned Land

City Limits

1:40,000



This information is for reference only.  
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data. Users are solely responsible for  
confirming data accuracy when necessary.

Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), and the GIS User Community