return to Tim Mitros

MASTER DEVELOPMENT DRAINAGE PLAN
FOR
ALLISON VALLEY

AUGUST 2004

PREPARED FOR:

CLASSIC COMMUNITIES
6385 CORPORATE DRIVE, SUITE 200
COLORADO SPRINGS, CO 80919
(719) 592-9333

PREPARED BY:

CLASSIC CONSULTING ENGINEERS & SURVEYORS, LLC
6385 CORPORATE DRIVE, SUITE 101
COLORADO SPRINGS, CO 80919

1080.00

CLASSIC
CONSULTING
ENGINEERS & SURVEYORS

MASTER DEVELOPMENT DRAINAGE PLAN FOR ALLISON VALLEY

DRAINAGE REPORT STATEMENT

ENGINEER'S STATEMENT:
The attached drainage plan and report were prepared under my direction and supervision and are correct to the best of my knowledge and belief. Said drainage report has been prepared according to the criteria established by the City for drainage reports and said report is in conformity with the master plan of the drainage basin. I accept responsibility for any liability caused by any negligent acts, errors, or omissions on my part in preparing this report.

COLORADO REGISTERED KYLE RAY CAMPBELL 29794 PROFESSIONAL ENGINEER

Kyle R. Campbell, Colorado P.E. #29794 — Date: 1.24.06

DEVELOPER'S STATEMENT:
I, the developer, have read and will comply with all of the requirements specified in this drainage report and plan.

Business Name: Classic Communities

By:

Title: V.P.

Address: 6385 Corporate Drive

Colorado Springs, CO 80919

CITY OF COLORADO SPRINGS ONLY:
Filed in accordance with Section 15-3-906 of the Code of the City of Colorado Springs, 1980, as amended.

City Engineer — Date: Feb 10, 2006

Conditions:

The Drainage Basin Planning Study (DBPS) for Black Squirrel and Middle Tributary will need to be updated to reflect the systems proposed in this report. The DBPS update will determine which of the proposed public systems are reimbursable.

MASTER DEVELOPMENT DRAINAGE PLAN FOR ALLISON VALLEY

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CLASSIC
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MASTER DEVELOPMENT DRAINAGE PLAN FOR ALLISON VALLEY

PURPOSE

This document is the Master Development Drainage Plan for Allison Valley. The purpose of this report is to identify existing and developed drainage patterns, areas tributary to the site, and to indicate major facilities that will need to be constructed with the development of the proposed master plan.

GENERAL DESCRIPTION

Allison Valley is a 476.421-acre site located in portions of Sections 17, 18, 19, and 20; Township 12 South, Range 66 West of the Sixth Principal Meridian, County of El Paso, State of Colorado. The site is bounded on the north by existing developments (Compassion International and Shepard's McGraw Hill Office Buildings) a recently constructed regional detention facility (Tract A, Compassion International Northgate Campus Filing No. 2) and future development (Compassion westerly expansion) properties just south of Middle Creek Parkway, to the south by the currently undeveloped Market Place at Interquest commercial development and Interstate 25, to the east by Voyager Parkway, and to the west by Air Force Academy property. The site stretches across 3 existing drainage basins, the Middle Tributary, Black Squirrel Creek, and the Elkhorn (Ford Fairlane). Multiple proposed land uses including multi and single family residential, commercial and an elementary school site, and open space are included in the proposed master plan for this site.

The average soil condition reflects Hydrologic Group "B" (Blakeland 8, Blendon 10, Tomah 93, Kettle 41, Kettle 42, and Stapleton 83 and 84) as determined by the "Soil Survey of El Paso County Area," prepared by the Soil Conservation Service (see map in Appendix).

The presence of the Preble's Meadow Jumping Mouse and wetlands within both the Middle and Black Squirrel Tributaries that cross the site has required coordination

with the Environmental Protection Agency, the U.S. Army Corps of Engineers, U.S. Fish and Wildlife and the Colorado Division of Wildlife. In addition, due to the proximity of the Air Force Academy drainage requirements of the Air Force Academy were taken into account. These various agencies comments/requirements are discussed in more detail in this report.

EXISTING DRAINAGE CONDITIONS

Middle Tributary Drainage Basin

Approximately 78 acres of the Allison Ranch property is within the southerly limits of the Middle Tributary Drainage Basin. At this time, the existing flows from this area predominantly travel in a westerly direction towards I-25. An existing regional detention facility is constructed along the northerly boundary to restrict flows from the Northgate Software Campus to historic levels. Approximately 600 off-site acres is tributary to this stretch of the Middle Tributary.

An existing stock pond is located within the channel that accepts the outfall from the Compassion outfall structure with an existing 24" C.M.P. outlet pipe. The pond has overtopped in the past, and no emergency spillway is present. Per the approved DBPS, this facility should be removed. Downstream, a 12' x 18' concrete box culvert crosses under I-25.

Black Squirrel Creek

The Allison Valley property is located at the bottom of the Black Squirrel Creek Drainage Basin, which stretches from the Black Forest, across Hwy. 83 and into the Air Force Academy property. Currently an existing box culvert conveys flows under Voyager Parkway. This Basin has been previously studied by the URS Corporation in the approved "Drainage Basin Planning Study for the Black Squirrel Creek Drainage Basin." The historic flows from Allison Valley currently drain either directly into Black Squirrel Creek or in a westerly direction into Air Force Academy property. The flows are then directed north and south to the existing I-25

bridge structure. Black Squirrel Creek currently crosses the property at an average of a 2% channel slope. The previous owner of the property constructed several in-line embankments along this stretch of the channel. Unfortunately, none of them are recognized by the State Engineers Office and the existing outlet structures do not appear to be per City/County criteria. The lack of emergency spillways and documentation of embankment construction requires these facilities to be removed or if there is a desire to maintain these amenities, that the embankments and outlet structures be thoroughly examined, rebuilt and documented through the State.

PROPOSED DRAINAGE CONDITIONS

Middle Tributary Drainage Basin

Per the approved "Middle Tributary Drainage Basin Study" prepared by URS Corporation, dated 1987, the proposed drainage improvements associated with the Allison Valley portion of the creek is as follows:

Reach 4	(Upstream of roadway extension from Middle Creek Parkway)	572 cfs	2500 L.F. partially lined channel w/ 8 proposed structures
Design Point 6	(Roadway crossing of Middle Tributary)	770 cfs	9' x 9' concrete box culvert
Reach 7A	(Downstream of roadway extension from Middle Creek Parkway)	779 cfs	1400 L.F. partially lined channel with one drop structure

Sub-regional and on-site detention is proposed for this portion of Allison Valley to maintain westerly historic flow rates.

At this time, the treatment of the channel section through Allison Valley has not been determined. Dependent upon land use layout and proposed street system geometry, a description of the proposed drainage areas is as follows:

A. Parcels 9 and 10 (Low Density Residential 2-3.5 du/ac)

Based upon the topography of these areas, it is assumed at this time that the existing ridgeline that delineates the Black Squirrel and Middle Tributary Basins will remain intact. The only major drainage facility in the area is the outfall channel from the Compassion storm outfall (572 cfs). At this time, either conformance with the DBPS is proposed (partially lined channel with drop structures) or possibly an underground storm system to convey the flows to the southerly roadway extension crossing. The developed flows from Parcels 9 and 10 will either have to be routed to an on-site, off-line detention facility or to the proposed downstream public detention facility or a private interim detention facility until environmental clearances are obtained.

B. Parcel 7 (School (12 ac) and Residential (9 acres)

Due to Parcel 7 and 12's remote location and developed flows generated by this site will be required to be detained on-site in private detention facilities to be maintained by the property owner or association.

C. Parcel 6 (Medium Density Residential – 12 acres)

Flows from this parcel will primarily be routed west into a proposed regional public detention facility. Dependent upon site layout and land use, this facility may be private with maintenance by an association or district. This facility will discharge directly into the Middle Tributary.

D. Parcel 5 (Medium Density 8-10 du/ac)

Only a small portion of this site is tributary to the Middle Tributary. Dependent upon the land use and site layout, an on-site detention facility may be required, or developed flows may be allowed to be released if Parcel 6 flows are over detained.

Black Squirrel Creek Drainage Basin

Allison Valley is located at the bottom southwesterly portion of the Black Squirrel Creek Drainage Basin. Per the proposed Allison Valley Master Plan, this area is to include low and medium density residential, parks, employment, multi-family areas, open space, and an elementary school site. Upon development of the individual Master Plan components, a Preliminary/Final Drainage Report will be required utilizing the Rational Method per the City/County Drainage Criteria Manual. This basin has been previously studied by URS Corporation in the "Drainage Basin Planning Study for Black Squirrel Creek Drainage Basin" approved December 1988.

The proposed Black Squirrel Drainage Improvements associated with Allison Valley is as follows:

Reach 26	(downstream of Voyager Parkway)	3803 cfs	2000 L.F. fully lined channel
Design Point 10	(Federal Drive Creek Crossing)	3803 cfs	Triple box culvert 11'-14'-11'x10'x120'
Reach 27	(downstream of Federal Drive extension to westerly boundary	3953 cfs	3800 L.F. fully lined channel
Reach 28	(downstream of Trail Ridge Detention Facility	745 cfs	1000 L.F. fully lined channel
Reach 28	(Federal Drive crossing of Reach 28 to Black Squirrel)	745 cfs	Box culvert 10'x9'x120'
Detention Facility 9	Westerly boundary	Q^{100} (in)= 439 cfs Q^{100} (out) = 106 cfs	1400 L.F. partially lined channel with one drop structure

The existing Drainage Basin Planning Study also describes initial system facilities ranging from 24" RCP to 48" RCP. At this time, without detailed site layouts and land uses, the systems as proposed in the URS study appear to be acceptable. Future detailed reports will clarify initial system requirements in order to monitor drainage fee requirements.

The portions of the Black Squirrel Creek that are within the Allison Valley Property have been identified by the Corps of Engineers as Jurisdictional Waters including wetland areas, see appendix for wetland exhibit. These areas will require a permit from the Corps in order to discharge fill or dredged material into these waters. The Prebles Jumping Mouse has also been identified within the area of Black Squirrel Creek that crosses the Allison Valley property. A 300' no-build mouse line will be established around the creek area in order not to disturb the habitat or appropriate permits from the USFWS will be obtained. On going coordination with USFWS is taking place to quantify limits of disturbance and outfall points. The Developer has retained the services of Engineering and Hydro Systems, Inc. (Littleton, CO) to prepare a Conceptual Stream Naturalization Feasibility Study for both the Black Squirrel and Middle Tributary Basins. The intent is to try to maintain some of the existing natural features of existing drainage ways while providing a stable drainage corridor for the approximate 4,000 cfs that travel within Black Squirrel Creek. The ultimate analysis by Classic Consulting Engineers & Surveyors will include specific bank treatments (vegetative, slope, rip-rap) and sediment load transfer review. Prior to approval of any land use adjacent to Black Squirrel or the Middle Tributary, City review and approval of the recommendations will be required.

Dependent upon land use layout and proposed street system geometry, a description of the proposed drainage area is as follows:

A. Parcel 1 (Village – 12-20 du/ac)

This potentially high-density development at the southeast corner of the property will continue to direct drainage flows in a primarily westerly

direction. A proposed storm system will intercept these developed flows at the northerly Federal Drive extension and then continue to the west across Parcel 2.

B. Parcel 2 (Commercial – 105 acres)

Flows from Parcel 2 are directed directly west. Due to our inability to release developed flows onto Air Force Academy property, an internal storm system will be required to direct flows into the Parcel 1 outfall storm system. The location and size of this system cannot be determined until a site specific layout for Parcel 2 is finalized. A proposed public regional detention facility is proposed for the most northwest corner of Parcel 2. All developed flows from Parcel 1 and 2 will be directed into this facility to be released at historic levels into Black Squirrel Creek.

C. Parcel 8 (Commercial Site – 6 acres)

Flows from this site will continue to travel in a southerly direction towards Black Squirrel Creek. An on-site detention facility is proposed for this site to release flows to historic levels entering Black Squirrel Creek (maintained by commercial parcel owner).

D. Parcel 3 (Medium Density 8-10 du/ac – 35 acres)

Similar to the aforementioned school site, Parcel 3 flows travel in a westerly direction towards the northerly extension of Federal Drive. A proposed public storm system will intercept these flows and route them through Parcel 4.

E. Parcels 9 & 10 (south) (Low Density 2-3.5 du/ac)

The flows from Parcels 9 and 10 south of the existing Ridgeline identified on our drainage map will be directed into the property outfall storm facilities from the existing Trail Ridge south detention facility at our easterly

boundary. This large diameter storm system and/or open channel will outfall in a southwesterly direction into Parcel 4.

F. Parcel 4 (Medium Density 3.5 – 8 du/ac)

Parcel 4 also drains in a westerly direction towards the confluence of the Parcel 3 and Parcels 9 and 10 outfall storm systems. A public regional detention facility is proposed adjacent to Black Squirrel Creek to restrict flows to historic levels.

G. Parcels 9 and 10 (North) (Low Density 2-3.5 du/ac)

The flows from Parcels 9 and 10 north of the existing Ridgeline identified on our drainage map will be directed in a westerly direction into a proposed public storm system at the northerly Ridgeline Drive extension to Middle Creek Parkway. This storm system will then continue west into Parcel 5.

H. Parcel 5 (Medium Density – 8-10 du/ac)

The intercepted flows from Parcel 9 will travel through Parcel 5 in a public storm system. Developed flows from Parcel 5 will be directed into the system towards a proposed public regional detention facility at the west end of Parcel 5. These total flows will be released at historic levels into Black Squirrel Creek.

Misc. Elkhorn Drainage Basin

The portion of the Allison Valley property that resides in Elkhorn Drainage Basin is located in the most northern part of said basin. This Basin is a "closed basin" therefore no fees are required. This Basin has been most recently studied in "I-25, Fairlane Parkway Interchange Final Hydraulic Report (Phase 1)" prepared by DMJM, dated August 1998 and "I-25 Interquest Parkway/S.H. 83 Relocation Final Hydraulic Report (Phase II)", prepared by DMJM, dated March 1999. These analysis identify the need for additional regional detention facilities to limit westerly developed flow discharge to Air Force Academy allowable historic rates.

DETENTION FACILITIES

Per the various DBPS's that include the Allison Valley property, there are multiple detention facilities that are required in order to release the historic 2, 5, 10, 50 and 100-year historic values based upon Air Force Academy requirements. This stringent release rate must be adhered to in order to maintain storm runoff at or below historic levels at the Air Force Academy boundary and so that the capacities of the existing Colorado Department of Transportation structures at Interstate 25 are not exceeded.

Final design of these recommended facilities that will include planning for water quality management of storm water runoff features will be designed during final design and construction of the proposed improvements. Storm water quality measures will be utilized in order to reduce the amount of sediment, debris and pollutants that are allowed to enter Middle and Black Squirrel Tributaries. These features include but are not limited to Extended Detention Basin Sedimentation Facilities, Sand Filter Extended Detention Basins, and Constructed Wetlands Basin Sedimentation Facilities. These measures will be taken into consideration upon final design of the individual detention facilities as well as the development of the individual land uses within the Allison Valley property. At this time, it is proposed that all storm water quality features will be included in the regional and local detention facilities and that no site-specific features will be required.

The elementary school site will be required to detain all developed flows and only release historic flows into Middle Creek. This detention facility will be evaluated in detail in a separate Final Drainage report that will be required for development of the school parcel.

Due to the wide range of densities associated with this Master Plan, specific detention requirements have not been calculated. Four public regional facilities are proposed in Parcels 2, 4, 5, and 6 with the remaining detention facilities being

privately maintained. It was noted in the Black Squirrel DBPS that "sub basins C2-C4.....K, L2 and L3, under ultimate conditions will be maintained to historic flows due to a delayed peak from upstream ponds. Temporary detention is required as development occurs until the permanent detention facilities are constructed."

Based upon the Air Force Academy's stringent guidelines related to multiple phased detention release and the general high imperviousness associated with a fair amount of the Allison Valley development, off-line detention of all developed areas within Allison Valley is proposed to be able to keep peak flows from this site at historic levels before being discharged.

MAINTENANCE

The proposed regional detention facilities and possible open channels are to be public facilities with maintenance of the surface landscape improvements by Allison Ranch. This would include the sections of Black Squirrel Creek that could be successfully maintained in a "natural" condition. Any bank stabilization or drop/check structures would be considered public. It is proposed that all other facilities be public with maintenance performed the City of Colorado Springs.

HYDROLOGIC CALCULATIONS

Hydrologic calculations will be performed using the City of Colorado Springs/El Paso County Drainage Criteria Manual, as revised in November 1991 and October 1994. The Soil Conservation Service method utilizing Pond Pak version 8.0 will be used to estimate peak storm water runoff and hydrograph generation anticipated from design storms with 5-year and 100-year recurrence interval. Rainfall data was obtained from standard isopluvial maps for this area from the City of Colorado Springs/El Paso County Drainage Criteria Manual, NOAA Atlas II, volume III. A 24-hour SCS Type II distribution was used per criteria with a 100-year precipitation of 4.40 inches and a 5-year precipitation of 2.7 inches. The historic discharge

requirements of the Air Force Academy will be adhered to in accordance with their 2, 5, 10, 50 and 100 year historic release criteria. At this time, due to unknown land use layouts and densities, hydrologic calculations will not be provided. As site layouts are identified, amendments to the MDDP will be prepared to analyze their contributions and facility requirements.

FLOODPLAIN STATEMENT

A portion of this site is located within a floodplain as determined by the Flood Insurance Rate Maps (F.I.R.M.) Map Number 08041C 0506F, 295 and 290F with effective dates, March 17, 1997 (See Appendix). The affected area is located within the main channel of the Black Squirrel Creek. This area is unstudied by FEMA, and a LOMR will be required prior to development adjacent to Black Squirrel Creek.

Wetlands

Walsh Environmental Scientists and Engineers, LLC was commissioned by Classic Communities to investigate the Allison Valley site to determine the location and quantity of wetlands. Based upon their attached report, 25.77 acres of jurisdictional and 6.59 acres of non-jurisdictional wetlands were identified primarily in the Black Squirrel Tributary.

Middle Tributary Drainage Basin

Per the approved DBPS for the Middle Tributary Drainage Basin, only major systems included in the DBPS are reimbursable thru the drainage basin funds, not the initial systems. The year 2006 drainage and bridge fees are as follows:

Drainage Fees:		
$4,518/acre x 78 acres	~~$352,404.00~~	$366,522
Pond Fees:		
Land		
$647/acre x 78 acres	~~$ 50,466.00~~	$59,982
TOTAL	~~$402,870.00~~	$426,504

Black Squirrel Creek Drainage Basin

Per the approved DBPS, all major and initial public drainage systems are reimbursable through the drainage basin funds and are to be publicly owned and maintained if located in a drainage easement or road right-of-way. The year 2005 drainage and bridge fees are as follows:

Drainage Fees:		
$9,063/acre x 389 acres	~~$3,525,507.00~~	$3,666,714
Bridge Fees:		
$1,035/acre x 389 acres	~~$ 402,615.00~~	$418,564
Pond Fees:		
Land		
$455/acre x 389 acres	~~$ 176,995.00~~	$ 210,449
TOTAL	**$4,105,117.00**	$ 4,295,727

Misc. Elkhorn Drainage Basin (Non Fee Basin)

Nine acres included in the Non Fee Basin.

CONSTRUCTION COST OPINION

Quantities and costs were evaluated for the major systems that will be required for the development of the proposed Master Plan for the Allison Valley property. These improvements include the replacement of existing inadequately sized culverts, storm sewers, lined channels, box culverts and regional detention facilities. These costs and quantities are conceptual.

Middle Tributary Drainage Basin

ITEM	DESCRIPTION	QUANTITY	UNIT COST	COST
1.	48" RCP Storm Pipe	1,200 LF	$60/LF	$ 72,000.00
2.	84" RCP Storm Pipe	1,500 LF	$225/LF	$ 337,500.00
3.	Detention Facility Parking	15 AC-FT	$15,000	$ 225,000.00
4.	(2) Box Culvert (9X9)	2,400 LF	$400/LF	$ 960,000.00
5.	Channel Stabilization	2,000 LF	$100/LF	$ 200,000.00
SUB-TOTAL				**$1,794,500.00**
25% ENGINEERING & CONTINGENCIES				**$ 448,625.00**
TOTAL				**$2,243,125.00**

Black Squirrel Creek Drainage Basin

ITEM	DESCRIPTION	QUANTITY	UNIT COST	COST
1.	48" RCP Storm Pipe	2,200 LF	$60/LF	$ 132,000.00
2.	60" RCP Storm Pipe	2,400 LF	$80/LF	$ 192,000.00
3.	72" RCP Storm Pipe	1,000 LF	$150/LF	$ 150,000.00
4.	84" RCP Storm Pipe	240 LF	$225/LF	$ 54,000.00
5.	Triple Box	120 LF	$1000/LF	$ 120,000.00
6.	Detention Facility	1,700 LF	$65/LF	$ 110,500.00
7.	Detention Facility Parcel 2	5 AC-FT	$25,000	$ 125,000.00
8.	Detention Facility Parcel 4	20 AC-FT	$25,000	$ 500,000.00
9.	Detention Facility Parcel 5	15 AC-FT	$25,000	$ 375,000.00
10.	Channel Stabilization	5500 LF	$100.00/LF	$ 550,000.00

SUB-TOTAL	**$3,298,500.00**
25% ENGINEERING & CONTINGENCIES	**$ 824,625.00**
TOTAL	**$4,123,125.00**

Classic Consulting Engineers & Surveyors cannot and does not guarantee that the construction cost will not vary from these opinions of probable construction costs. These opinions represent our best judgment as design professionals familiar with the construction industry and this development in particular

STORMWATER QUALITY

This site will be required to adhere to construction and permanent City of Colorado Springs Stormwater Quality requirements. Based upon the requirement for this development to detain to historic levels, stormwater quality facilities will be incorporated into each off-line detention facility design. Location and sizes of these facilities will be determined upon further analysis of land use and street networks.

SUMMARY

Developed flows are to be routed to the various proposed detention facilities that are required to detain the 2, 5, 10, 50, and 100 year storms and release only the historic flows into the various drainage basins per the Air Force Academy criteria. Flows for the land uses were calculated using the SCS method and are conceptual only. Upon development of the individual Master Plan components, a Preliminary/Final Drainage Report will be required utilizing the Rational Method per the City/County Drainage Criteria Manual. Impact on Jurisdictional waters and the Preble's Meadow Jumping Mouse will be minimized with the development of the proposed Master Plan. Existing DBPS's will be required to be updated to comply with the systems proposed in this report.

PREPARED BY:

Classic Consulting Engineers & Surveyors, LLC

Kyle R. Campbell P.E.
Division Manager

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REFERENCES

1. City of Colorado Springs/County of El Paso Drainage Criteria Manual dated October 1991.

2. "Black Squirrel Creek Drainage Basin Planning Study (Revision)" URS Corporation dated November 1988.

3. "Middle Tributary Drainage Basin Planning Study" URS Corporation, dated August 1987.

4. "Master Development Drainage Plan Update Fairlane Technological Park" Kiowa Engineering Corporation dated November 2000.

5. "Northgate Master Development Drainage Plan (Black Squirrel Creek and Miscellaneous Basins" URS Corporation dated August 1989.

6. "Northgate Master Development Drainage Plan (Monument Branch & Middle Tributary Basins)" URS Corporation dated December 1987.

7. "Northgate Phase I Final Drainage Report" URS Corporation dated June 1987.

8. "I-25, Fairlane Parkway Interchange Final Hydraulic Report (Phase 1), DMJM, dated August 1998.

9. "I-25, Interquest Parwkay/S.H. 83 Relocation Final Hydraulic Report", DMJM, dated March 1999.

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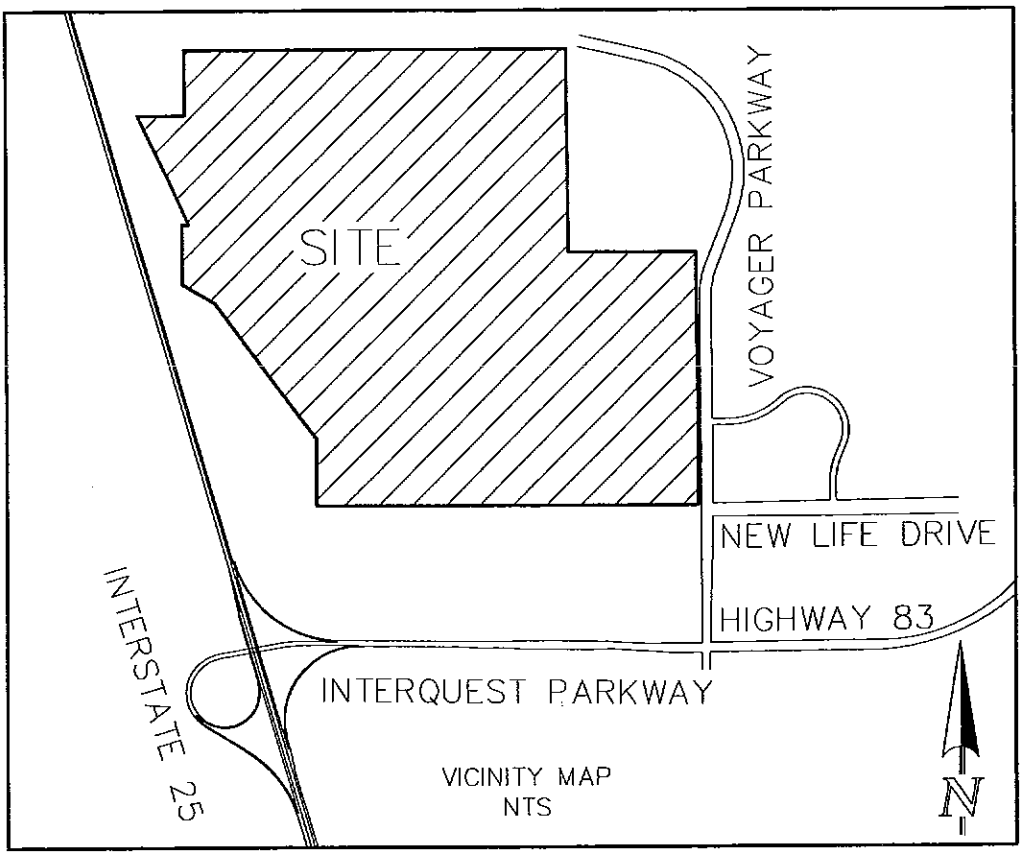
APPENDIX



VICINITY MAP
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VICINITY MAP

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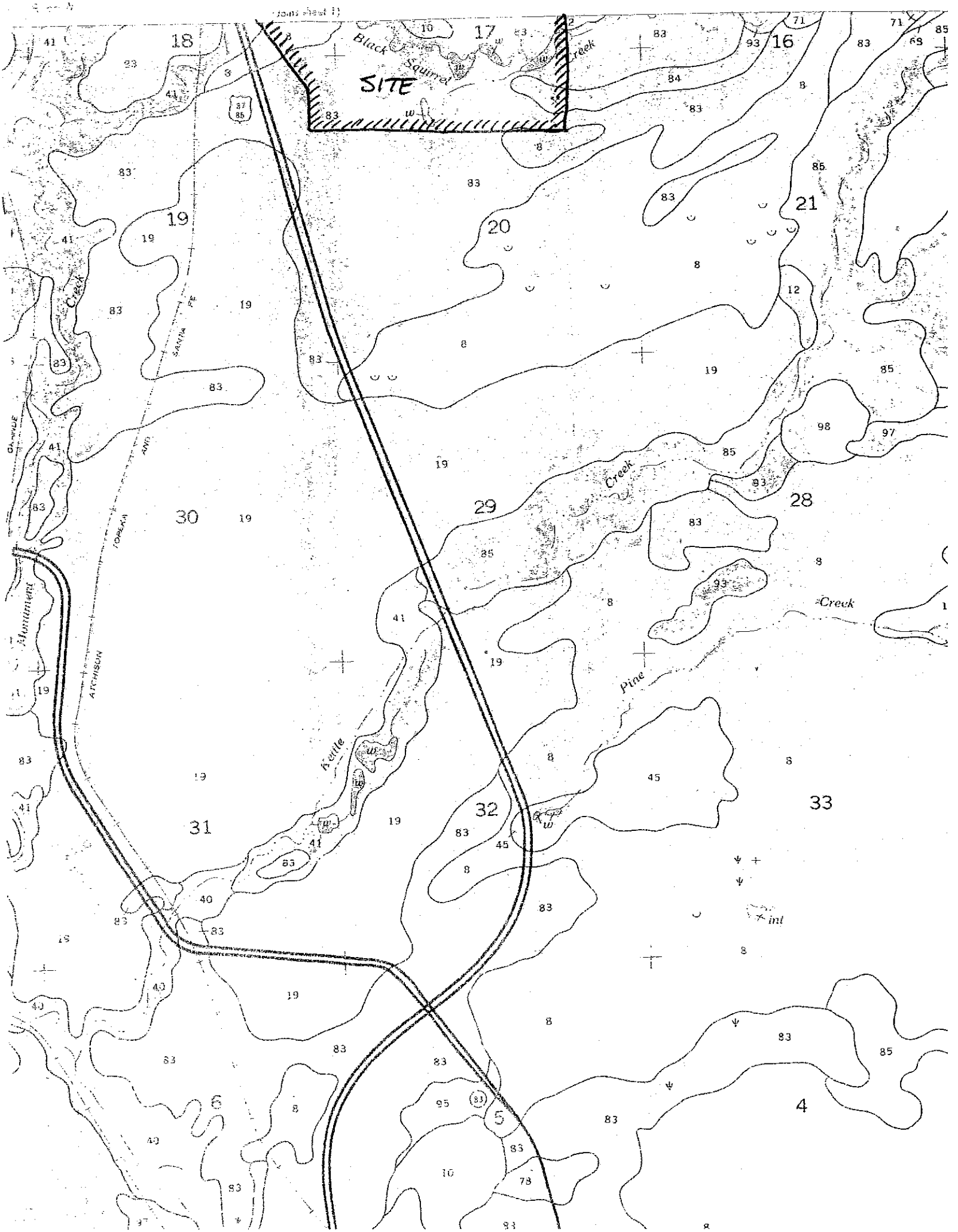
SOILS MAP (S.C.S SURVEY)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Black Squirrel Creek
Creek
Pine
Creek
Creek
Monument
ATCHISON
TOPEKA
AND
SANTA FE
16
17
18
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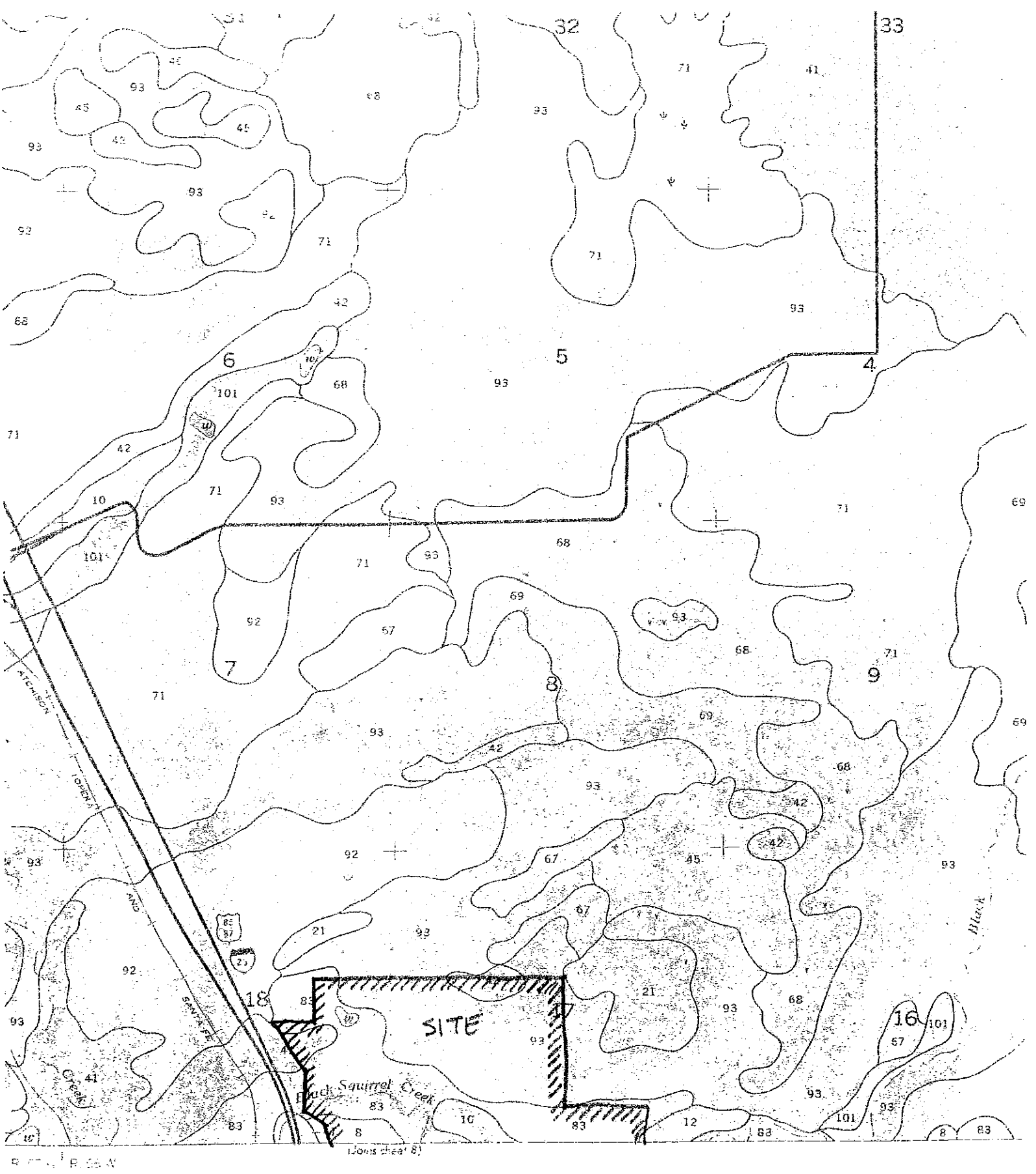
SITE
Black Squirrel Creek
ATCHISON
TOPEKA
AND
SANTA FE
Black
Creek
Scale 1:24000

TABLE 16.--SOIL AND WATER FEATURES

[Absence of an entry indicates the feature is not a concern. See "flooding" in Glossary for definition of terms as "rare," "brief," and "very brief." The symbol > means greater than]

Soil name and map symbol	Hydrologic group	Flooding			Bedrock		Potential frost action
		Frequency	Duration	Months	Depth	Hardness	
					In		
Alamosa: 1	C	Frequent	Brief	May-Jun	>60	---	High.
Ascalon: 2, 3	B	None	---	---	>60	---	Moderate.
Badland: 4	D	---	---	---	---	---	---
Bijou: 5, 6, 7	B	None	---	---	>60	---	Low.
Blakeland: 8	A	None	---	---	>60	---	Low.
[1]9: Blakeland part	A	None	---	---	>60	---	Low.
Fluvaquentic Haplaquolls part	D	Common	Very brief	Mar-Aug	>60	---	High.
Blendon: 10	B	None	---	---	>60	---	Moderate.
Bresser: 11, 12, 13	B	None	---	---	>60	---	Low.
Brussett: 14, 15	B	None	---	---	>60	---	Moderate.
Chaseville: 16, 17	A	None	---	---	>60	---	Low.
[1]18: Chaseville part	A	None	---	---	>60	---	Low.
Midway part	D	None	---	---	10-20	Rippable	Moderate.
Columbine: 19	A	None to rare	---	---	>60	---	Low.
Connerton: [1]20: Connerton part	B	None	---	---	>60	---	High.
Rock outcrop part	D	---	---	---	---	---	---
Cruckton: 21	B	None	---	---	>60	---	Moderate.
Cushman: 22, 23	C	None	---	---	20-40	Rippable	Moderate.
[1]24: Cushman part	C	None	---	---	20-40	Rippable	Moderate.
Kutch part	C	None	---	---	20-40	Rippable	Moderate.
Elbeth: 25, 26	B	None	---	---	>60	---	Moderate.
[1]27: Elbeth part	B	None	---	---	>60	---	Moderate.

See footnote at end of table.

TABLE 16.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydrologic group	Flooding			Bedrock		Potential frost action
		Frequency	Duration	Months	Depth	Hardness	
					In		
Tomah: [1]92, 93							
Tomah part	B	None	---	---	>60	---	Moderate.
Crowfoot part	B	None	---	---	>60	---	Moderate.
Travessilla: [1]94:							
Travessilla part	D	None	---	---	6-20	Hard	Low.
Rock outcrop part	D	---	---	---	---	---	---
Truckton: 95, 96, 97	B	None	---	---	>60	---	Moderate.
[1]98:							
Truckton part	B	None	---	---	>60	---	Moderate.
Blakeland part	A	None	---	---	>60	---	Low.
[1]99, [1]100:							
Truckton part	B	None	---	---	>60	---	Moderate.
Bresser part	B	None	---	---	>60	---	Low.
Ustic Torrifluvents: 101	B	Occasional	Very brief	Mar-Aug	>60	---	Moderate.
Valent: 102, 103	A	None	---	---	>60	---	Low.
Vona: 104, 105	B	None	---	---	>60	---	Moderate.
Wigton: 106	A	None	---	---	>60	---	Low.
Wiley: 107, 108	B	None	---	---	>60	---	Low.
Yoder: 109, 110	B	None	---	---	>60	---	Low.

[1]This map unit is made up of two or more dominant kinds of soil. See map unit description for the composition and behavior characteristics of the map unit.

TABLE 16.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydrologic group	Flooding			Bedrock		Potential frost action
		Frequency	Duration	Months	Depth	Hardness	
					In		
Elbeth:							
Pring part	B	None	---	---	>60	---	Moderate.
Ellicott:							
28	A	Frequent	Brief	Mar-Jun	>60	---	Low.
Fluvaquentic Haplaquolls:							
29	B/D	Frequent	Brief	Mar-Jul	>60	---	High.
Fort Collins:							
30, 31	B	None to rare	---	---	>60	---	Moderate.
Fortwingate:							
[1]32:							
Fortwingate part	C	None	---	---	20-40	Hard	Low.
Rock outcrop part	D	---	---	---	---	---	---
Heldt:							
33	C	None	---	---	>60	---	Moderate.
Holderness:							
34, 35, 36	C	None	---	---	>60	---	Moderate.
Jarre:							
37	B	None	---	---	>60	---	Moderate.
[1]38:							
Jarre part	B	None	---	---	>60	---	Moderate.
Tecolote part	B	None	---	---	>60	---	Moderate.
Keith:							
39	B	None	---	---	>60	---	High.
Kettle:							
40, 41	B	None	---	---	>60	---	Moderate.
42							
Kettle part	B	None	---	---	>60	---	Moderate.
Rock outcrop part	D	---	---	---	---	---	---
Kim:							
43	B	None	---	---	>60	---	Moderate.
Kutch:							
44, 45	C	None	---	---	20-40	Rippable	Moderate.
Kutler:							
[1]46:							
Kutler part	C	None	---	---	20-40	Rippable	Low.
Broadmoor part	C	None	---	---	20-40	Rippable	Low.
Rock outcrop part	D	---	---	---	---	---	---
Limon:							
47	C	Occasional	Brief	May-Sep	>60	---	Moderate.
Louviers:							
48	D	None	---	---	10-20	Rippable	Moderate.
49	D	None	---	---	10-20	Rippable	Low.

See footnote at end of table.

TABLE 16.--SOIL AND WATER FEATURES--Continued

Soil name and map symbol	Hydrologic group	Flooding			Bedrock		Potential frost action
		Frequency	Duration	Months	Depth	Hardness	
					In		
Razor:							
[1]75:							
Razor part-----	C	None----------	---	---	20-40	Rippable	Moderate.
Midway part----	D	None----------	---	---	10-20	Rippable	Moderate.
Rizozo:							
[1]76:							
Rizozo part----	D	None----------	---	---	4-20	Hard	Low.
Neville part---	B	None----------	---	---	>60	---	High.
Rock outcrop:							
[1]77:							
Rock outcrop part----------	D	---	---	---	---	---	---
Coldcreek part-	B	None----------	---	---	40-60	Rippable	Moderate.
Tolman part----	D	None----------	---	---	10-20	Hard	Moderate.
Sampson:							
78----------	B	None----------	---	---	>60	---	Moderate.
Satanta:							
79, 80----------	B	None----------	---	---	>60	---	Moderate.
[1]81:							
Satanta part---	B	None----------	---	---	>60	---	Moderate.
Neville part---	B	None----------	---	---	>60	---	High.
Schamber:							
[1]82:							
Schamber part--	A	None----------	---	---	>60	---	Moderate.
Razor part-----	C	None----------	---	---	20-40	Rippable	Moderate.
Stapleton:							
83 84----------	B	None----------	---	---	>60	---	Moderate.
[1]85:							
Stapleton part-	B	None----------	---	---	>60	---	Moderate.
Bernal part----	D	None----------	---	---	8-20	Hard	Moderate.
Stoneham:							
86, 87----------	B	None----------	---	---	>60	---	Moderate.
Stroupe:							
[1]88:							
Stroupe part---	C	None----------	---	---	20-40	Hard	Moderate.
Travessilla part----------	D	None----------	---	---	6-20	Hard	Low.
Rock outcrop part----------	D	---	---	---	---	---	---
Tassel:							
89----------	D	None----------	---	---	10-20	Rippable	Low.
Terry:							
90----------	B	None----------	---	---	20-40	Rippable	Moderate.
[1]91:							
Terry part-----	B	None----------	---	---	20-40	Rippable	Moderate.
Razor part-----	C	None----------	---	---	20-40	Rippable	Moderate.

See footnote at end of table.

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F.E.M.A. MAP

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

EL PASO COUNTY, COLORADO AND INCORPORATED AREAS

PANEL 506 OF 1300
(SEE MAP INDEX FOR PANELS NOT PRINTED)

CONTAINS: COMMUNITY	NUMBER	PANEL	SUFFIX
COLORADO SPRINGS, CITY OF	080060	0506	F
EL PASO COUNTY, UNINCORPORATED AREAS	080059	0506	F

MAP NUMBER
08041C0506 F

EFFECTIVE DATE:
MARCH 17, 1997

Federal Emergency Management Agency

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

EL PASO COUNTY, COLORADO AND INCORPORATED AREAS

PANEL 295 OF 1300
(SEE MAP INDEX FOR PANELS NOT PRINTED)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
COLORADO SPRINGS, CITY OF	080060	0295	F
EL PASO COUNTY, UNINCORPORATED AREAS	080059	0295	F

MAP NUMBER
08041C0295 F

EFFECTIVE DATE:
MARCH 17, 1997

Federal Emergency Management Agency

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

EL PASO COUNTY, COLORADO AND INCORPORATED AREAS

PANEL 290 OF 1300

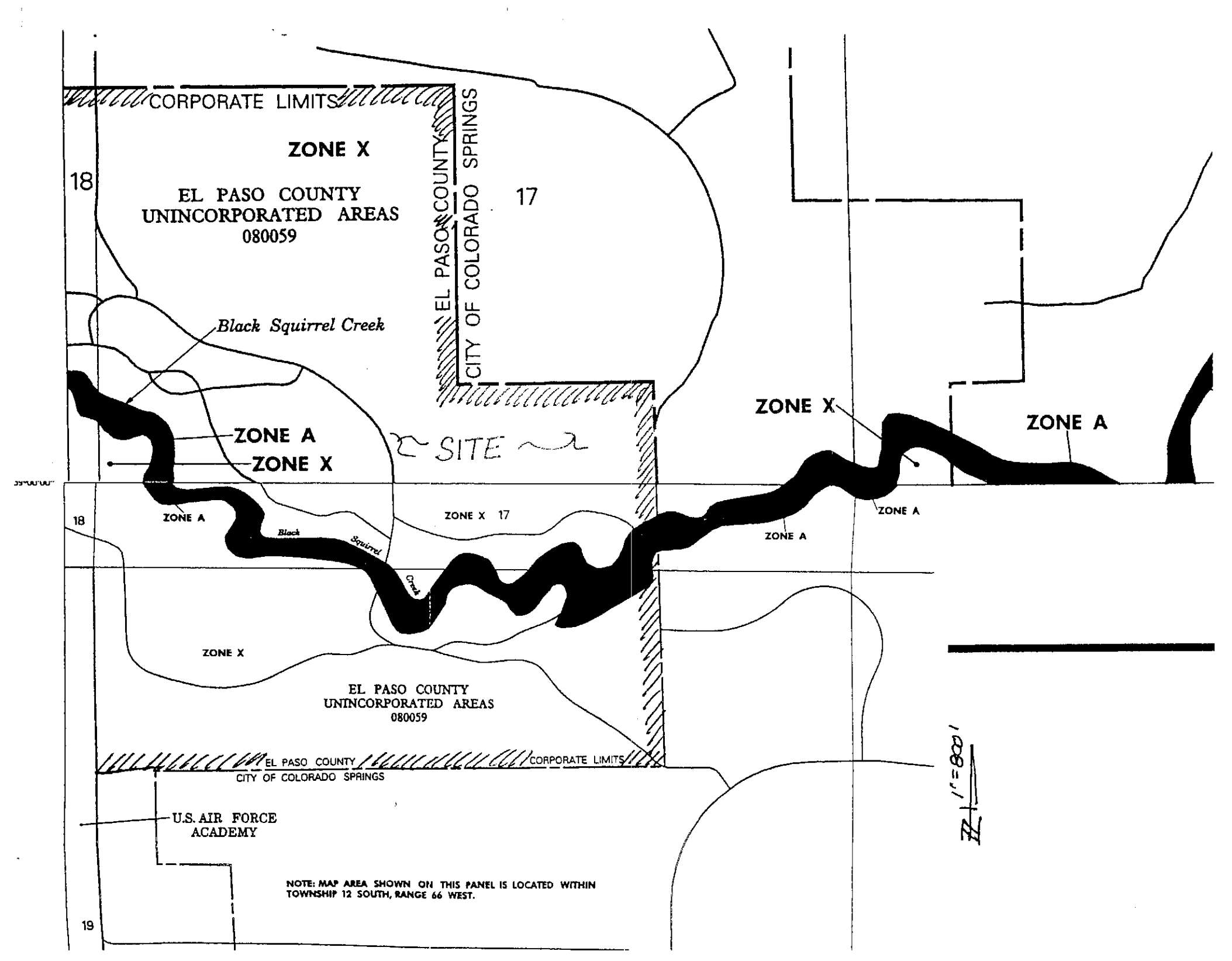
(SEE MAP INDEX FOR PANELS NOT PRINTED)

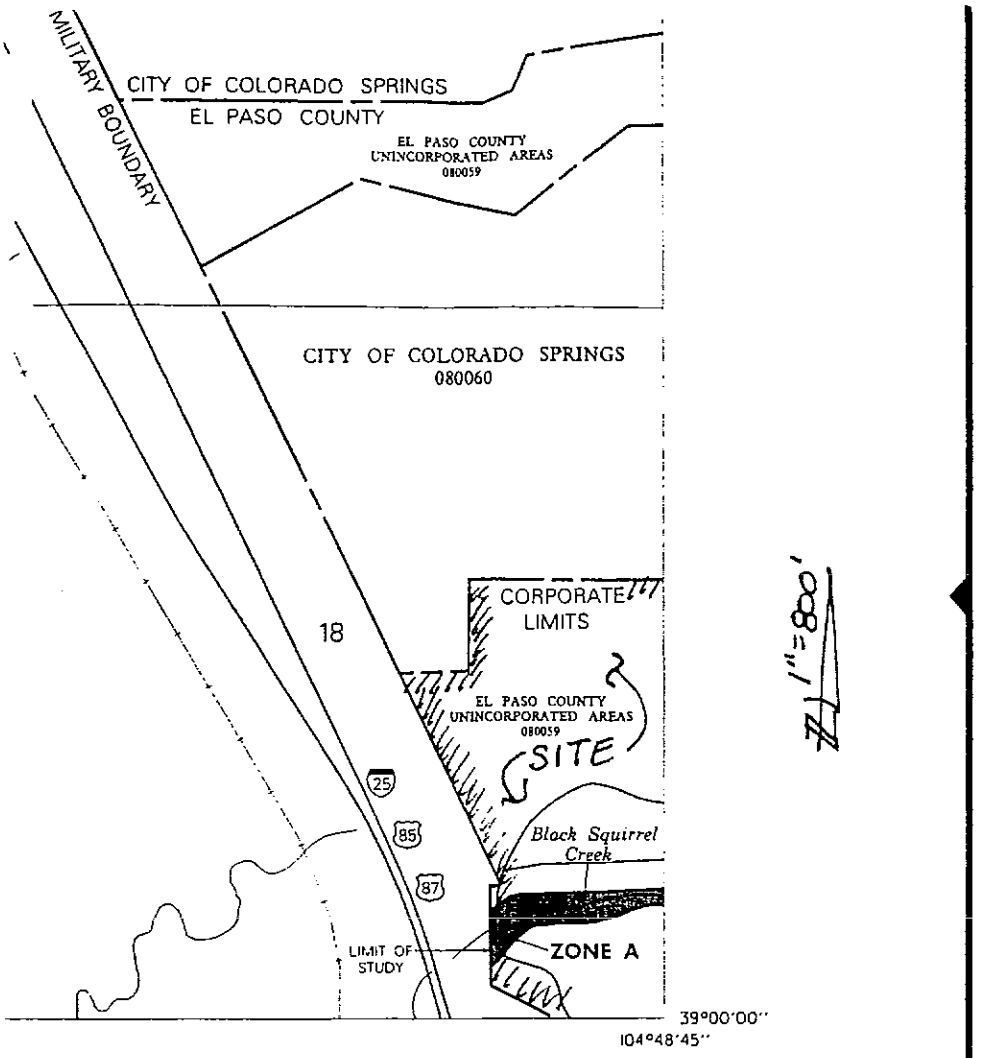
CONTAINS: COMMUNITY	NUMBER	PANEL	SUFFIX
COLORADO SPRINGS, CITY OF	080060	0290	F
EL PASO COUNTY, UNINCORPORATED AREAS	080059	0290	F

MAP NUMBER
08041C0290 F

EFFECTIVE DATE:
MARCH 17, 1997

Federal Emergency Management Agency


CORPORATE LIMITS
ZONE X
18
EL PASO COUNTY
UNINCORPORATED AREAS
080059
EL PASO COUNTY
CITY OF COLORADO SPRINGS
17
Black Squirrel Creek
ZONE A
ZONE X
SITE
ZONE X
ZONE A
18
ZONE A
Black Squirrel Creek
ZONE X 17
ZONE A
ZONE A
ZONE X
EL PASO COUNTY
UNINCORPORATED AREAS
080059
EL PASO COUNTY
CITY OF COLORADO SPRINGS
CORPORATE LIMITS
U.S. AIR FORCE
ACADEMY
NOTE: MAP AREA SHOWN ON THIS PANEL IS LOCATED WITHIN
TOWNSHIP 12 SOUTH, RANGE 66 WEST.
19
1" = 800'



NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

EL PASO COUNTY, COLORADO AND INCORPORATED AREAS

PANEL 290 OF 1300

(SEE MAP INDEX FOR PANELS NOT PRINTED)

CONTAINS COMMUNITY	NUMBER	PANEL	SUFFIX
COLORADO SPRINGS, CITY OF	080060	0290	F
EL PASO COUNTY, UNINCORPORATED AREAS	080059	0290	F

MAP NUMBER
08041C0290 F

EFFECTIVE DATE:
MARCH 17, 1997

Federal Emergency Management Agency

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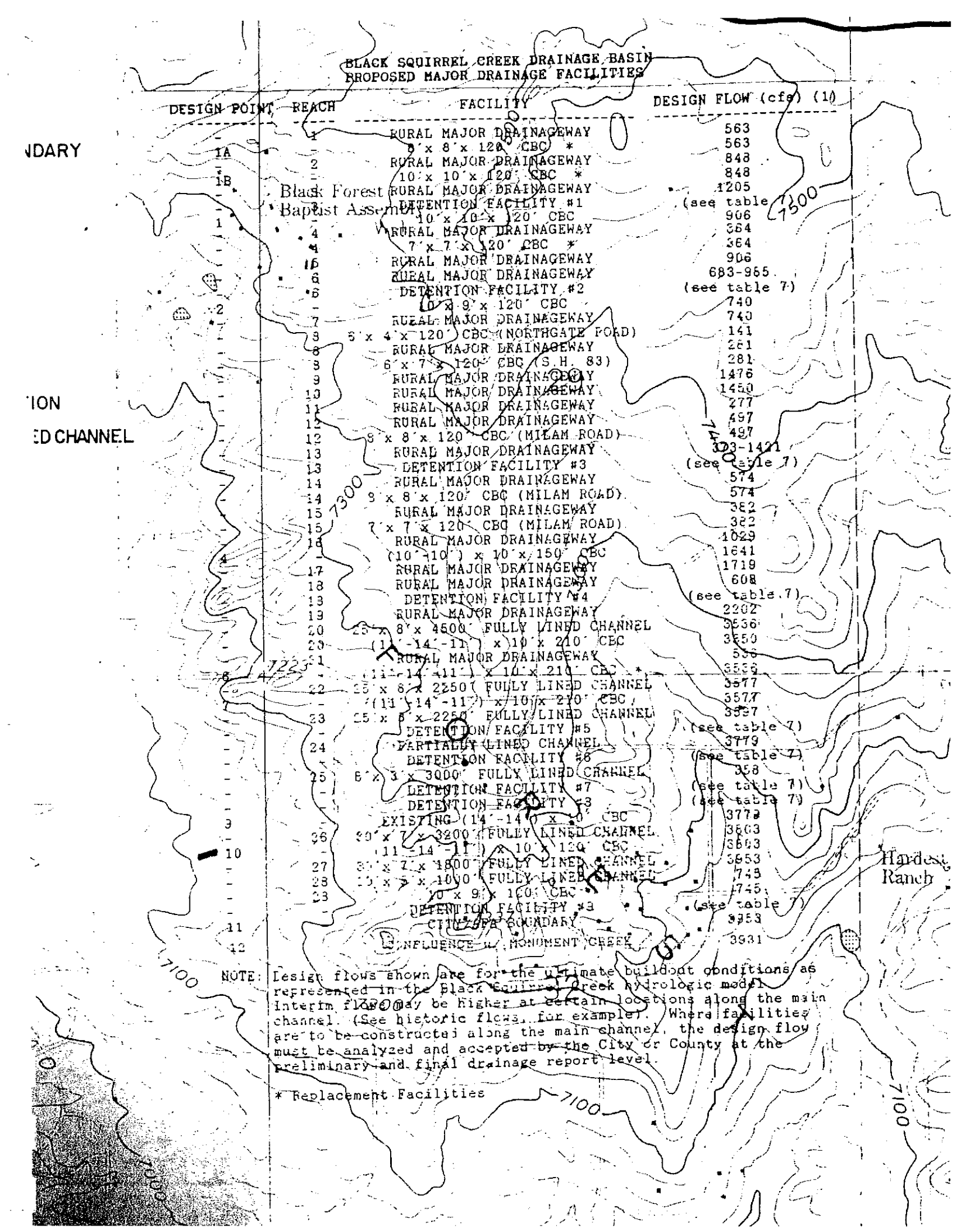
BLACK SQUIRREL CREEK

DBPS MAP



BLACK SQUIRREL CREEK DRAINAGE BASIN
PROPOSED MAJOR DRAINAGE FACILITIES

DESIGN POINT	REACH	FACILITY	DESIGN FLOW (cfs) (1)
-	1	RURAL MAJOR DRAINAGEWAY	563
-	-	5' x 8' x 120' CBC *	563
-	2	RURAL MAJOR DRAINAGEWAY	848
-	-	10' x 10' x 120' CBC *	848
-	3	RURAL MAJOR DRAINAGEWAY	1205
-	-	DETENTION FACILITY #1	(see table 7)
-	-	10' x 10' x 120' CBC	906
-	4	RURAL MAJOR DRAINAGEWAY	364
-	-	7' x 7' x 120' CBC *	364
-	5	RURAL MAJOR DRAINAGEWAY	906
-	6	RURAL MAJOR DRAINAGEWAY	683-965
-	6	DETENTION FACILITY #2	(see table 7)
-	-	10' x 9' x 120' CBC	740
-	7	RURAL MAJOR DRAINAGEWAY	740
-	8	5' x 4' x 120' CBC (NORTHGATE ROAD)	141
-	8	RURAL MAJOR DRAINAGEWAY	281
-	8	6' x 7' x 120' CBC (S.H. 83)	281
-	9	RURAL MAJOR DRAINAGEWAY	1476
-	10	RURAL MAJOR DRAINAGEWAY	1450
-	11	RURAL MAJOR DRAINAGEWAY	277
-	12	RURAL MAJOR DRAINAGEWAY	497
-	12	8' x 8' x 120' CBC (MILAM ROAD)	497
-	13	RURAL MAJOR DRAINAGEWAY	323-1421
-	13	DETENTION FACILITY #3	(see table 7)
-	14	RURAL MAJOR DRAINAGEWAY	574
-	14	9' x 8' x 120' CBC (MILAM ROAD)	574
-	15	RURAL MAJOR DRAINAGEWAY	382
-	15	7' x 7' x 120' CBC (MILAM ROAD)	382
-	16	RURAL MAJOR DRAINAGEWAY	1029
-	-	(10'-10') x 10' x 150' CBC	1641
-	17	RURAL MAJOR DRAINAGEWAY	1719
-	18	RURAL MAJOR DRAINAGEWAY	608
-	18	DETENTION FACILITY #4	(see table 7)
-	19	RURAL MAJOR DRAINAGEWAY	2202
-	20	25' x 8' x 4500' FULLY LINED CHANNEL	3536
-	20	(11'-14'-11') x 10' x 210' CBC	3550
-	21	RURAL MAJOR DRAINAGEWAY	536
-	-	(11'-14'-11') x 10' x 210' CBC *	3536
-	22	25' x 8' x 2250' FULLY LINED CHANNEL	3577
-	-	(11'-14'-11') x 10' x 210' CBC	3577
-	23	25' x 8' x 2250' FULLY LINED CHANNEL	3597
-	-	DETENTION FACILITY #5	(see table 7)
-	24	PARTIALLY LINED CHANNEL	3779
-	-	DETENTION FACILITY #6	(see table 7)
-	25	6' x 3' x 3000' FULLY LINED CHANNEL	358
-	-	DETENTION FACILITY #7	(see table 7)
-	-	DETENTION FACILITY #8	(see table 7)
-	-	EXISTING (14'-14') x 10' CBC	3778
-	26	30' x 7' x 3200' FULLY LINED CHANNEL	3803
-	-	(11'-14'-11') x 10' x 120' CBC	3803
-	27	30' x 7' x 1800' FULLY LINED CHANNEL	3953
-	28	10' x 5' x 1000' FULLY LINED CHANNEL	745
-	28	10' x 9' x 120' CBC	745
-	-	DETENTION FACILITY #9	(see table 7)
-	-	CITY/COUNTY BOUNDARY	3953
-	29	CONFLUENCE W/ MONUMENT CREEK	3931

NOTE: Design flows shown are for the ultimate buildout conditions as represented in the Black Squirrel Creek hydrologic model. Interim flows may be higher at certain locations along the main channel. (See historic flows, for example). Where facilities are to be constructed along the main channel, the design flow must be analyzed and accepted by the City or County at the preliminary and final drainage report level.

* Replacement Facilities

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MIDDLE TRIBUTARY

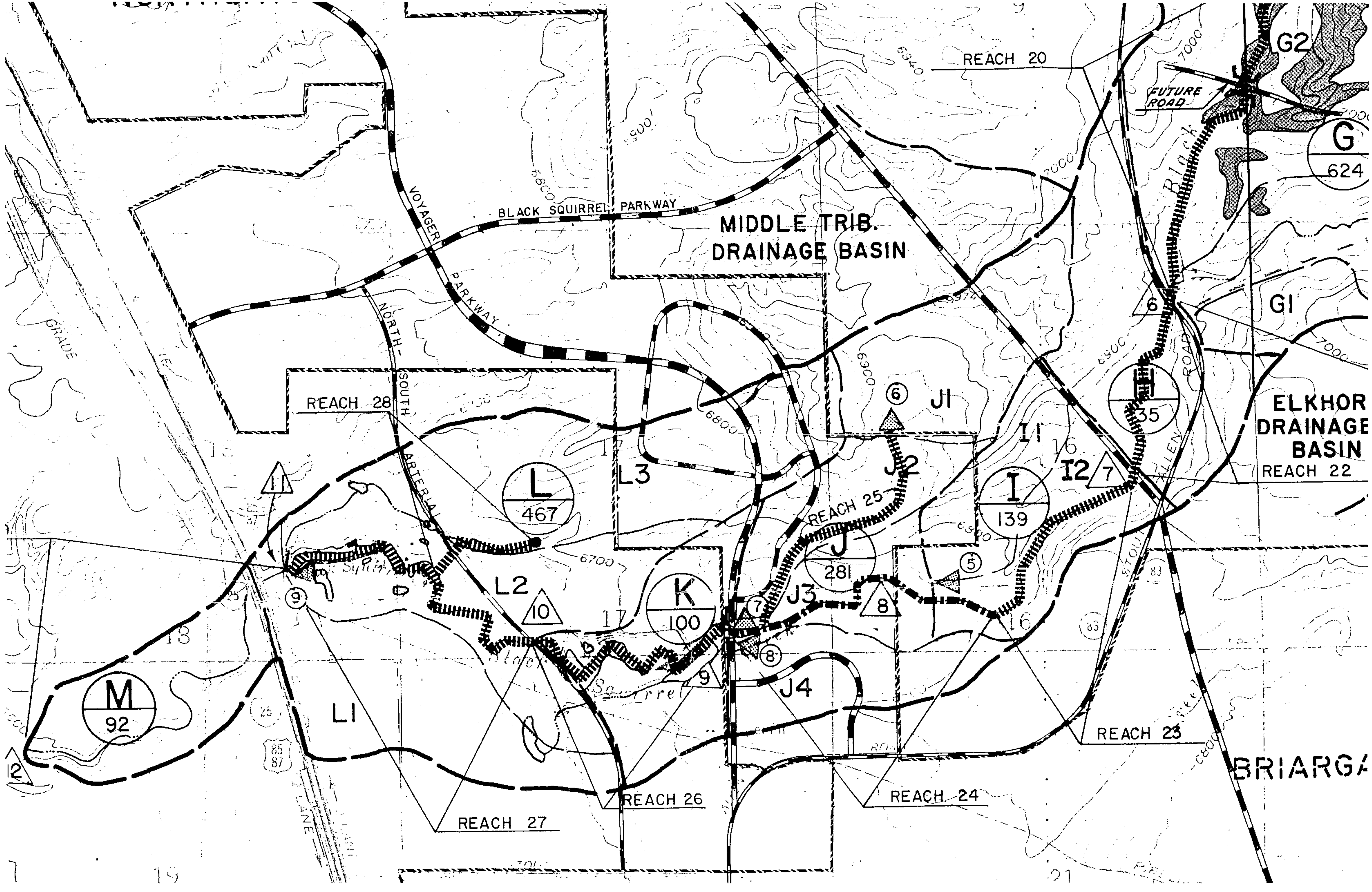
DBPS MAP

TABLE 8

MIDDLE TRIBUTARY DRAINAGE BASIN
PROPOSED MAJOR DRAINAGE FACILITIES

DESIGN POINT	REACH	FACILITY (w x d x l)	DESIGN FLOW (cfs)	
1	–	5'x 5' CBC	190	
–	1A	100 YR OVERFLOW PROVISION	786	
–	1B	25'x 4.0' x 1800 PLC, 8 drops	786	
2	–	42" RCP	50	*
–	2	100 YR OVERFLOW PROVISION	50	
3A	–	5'x 5' CBC	179	*
3B	–	54" RCP	104	*
–	3A	25'x 4.0' x 1400' PLC, 8 drops	445	
–	3B	100 YR OVERFLOW PROVISION	179	*
4	–	DETENTION FACILITY	445	(out)
–	4	25'x 4.03.5' x 2600' PLC, 8 drop	572	
5	–	8'x 8' CBC	560	
6	–	9'x 9' CBC	770	
–	5	100 YR OVERFLOW PROVISION	323	*
7	–	DETENTION FACILITY	35	(out)
–	6	100 YR OVERFLOW PROVISION	376	
8	–	DETENTION FACILITY	27	(out)
–	7A	25'x 4.0'x 1400' PLC, 1 drop	779	
–	7B	NATURAL CHANNEL	782	
9	–	60" RCP	161	
–	8A	100 YR OVERFLOW PROVISION	461	
–	8B	NATURAL CHANNEL	167	
10	–	DETENTION FACILITY	223	(out)
–	9	NATURAL CHANNEL	893	
11	–	AFA BOUNDRY	779	
–	10	NATURAL CHANNEL	904	
12	–	12'x 8' CBC (EXIST.)	782	
13	–	5'x 5' CBC	199	*
14	–	DETENTION FACILITY	123	(out)
15	–	48" CMP (EXIST.)	167	
16	–	EXIST. HORSESHOE CULV.	893	
17	–	CONFLUENCE MON. CK.	904	

* Calculated by the Rational Method.


MIDDLE TRIB.
DRAINAGE BASIN
ELKHORN
DRAINAGE
BASIN
BLACK SQUIRREL PARKWAY
VOYAGER PARKWAY
NORTH-SOUTH ARTERIAL
FUTURE ROAD
ALLEN ROAD
REACH 20
REACH 22
REACH 23
REACH 24
REACH 25
REACH 26
REACH 27
REACH 28
G2
G
624
G1
H
35
I
139
I1
I2
J
281
J1
J2
J3
J4
K
100
L
467
L1
L2
L3
M
92
BRIARGA

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WETLANDS EXHIBIT

Walsh
Environmental Scientists and Engineers, LLC
an ecology and environment company

December 5, 2003

Mr. Van Truan
U.S. Army Corps of Engineers
Southern Colorado Project Office
720 North Main Street, Suite 205
Pueblo, CO 81003-3046

Re: Request for Verification of Jurisdictional Delineation
Allison Ranch, Colorado Springs, El Paso County, Colorado

Dear Mr. Truan:

On behalf of the property owner, Classic Communities, Walsh Environmental Scientists and Engineers, LLC (WALSH) is formally requesting verification of a jurisdictional wetland boundary delineation conducted on the Allison Ranch property. The enclosed information summarizes the results of WALSH's wetland delineation conducted on November 11-12, 2003. The contact information for the applicant is provided below:

APPLICANT	AGENT
Mr. Drew Balsick	Janetta Shepard, P.W.S.
Classic Communities	Wetland Scientist
6385 Corporate Drive, Suite 200	Walsh Environmental Scientists and Engineers, Inc.
Colorado Springs, CO 80919	4888 Pearl East Circle, Suite 108
Phone: (719) 785-2802	Boulder, Colorado 80301-2475
Fax: (719) 785-0799	Phone: (303) 443-3282
	FAX: (303) 443-0367

LOCATION

The property is located east of Interstate 25 and approximately 0.25-mile north of Interquest Parkway in northern El Paso County. Allison Ranch, which straddles the Pikeview and Monument USGS 7.5 minute quadrangles, is located in portions of Sections 17, 19 and 20, T12S, R66W at an elevation ranging from 6,000 to 6,800 feet above mean sea level. The center of the ranch is situated in UTM zone 13, at approximately 516576mE and 4317026mN (refer to Figure 1 for a site location map).

Allison Ranch is bounded to the north by commercial development, undeveloped land slated for development, and Voyager Parkway (to the northeast); to the east by a residential subdivision and Voyager Parkway; to the south by undeveloped rangeland; and to the west by U.S. Air Force Academy lands that lie adjacent to Interstate 25. The site is accessed via New Life Road, which is located in the southeastern corner of the property on the west side of Voyager Parkway and just south of Black Squirrel Creek. The entrance road is gated and the lock code must be obtained from Classic Communities in advance of any site visit. Additionally, there is a sign-in sheet in a box located immediately inside the gate that must be filled out upon entry. This site entrance links to a network of unpaved ranch roads throughout the property.

SITE CONDITIONS

Overall topography of the property consists of rolling hills dissected by two main drainages. Upland terrain is dominated by native mixed grass prairie interspersed with formerly irrigated hayfields planted in pasture grasses. The largest drainage, Black Squirrel Creek, flows through the south-central portion of the property and drains from east to west, ultimately connecting downstream to Monument Creek on U.S. Air Force Academy property. The second drainage is an un-named tributary to Monument Creek. This drainage traverses in the northwestern corner of Allison Ranch and drains westward, continuing onto Air Force Academy land. The headwaters of the tributary begin in the central portion of the site at a deep ravine-like headcut containing a series of actively flowing side slope seeps. Wooded upland habitat dominated by ponderosa pine, or a mixed-shrub scrub community, occurs along the drainage side slopes.

Six additional wetland areas are present on the property, situated along irrigation ditches and in open meadows. The majority of these wetland areas have developed as a result of human-made dams and ditches, which were originally constructed throughout the ranch to form stock ponds and irrigation water supply. The wetlands throughout the site support emergent persistent (PEP) and/or scrub-shrub (SS) riparian communities.

A house, barn and number of ranch outbuildings are clustered in one location above Black Squirrel Creek in the southwestern portion of the property. As part of the site development plans, these structures will be removed once construction commences on the property. Livestock have already been removed from the ranch site.

METHODOLOGY

The Jurisdictional Delineation was conducted following the methodology enumerated in the *1987 Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987). During the field inspection, representative soil borings were taken, dominant vegetation was recorded, and representative hydrologic indicators were noted in order to identify the presence of jurisdictional waters of the U.S., including wetlands, on the

property. Soils, vegetation, and hydrology were used in determining jurisdictional boundaries.

Soils

Representative soil borings were taken along the riparian corridors of the drainages and irrigation ditches, and within the isolated wet meadows to determine the presence or absence of hydric soils (refer to attached Data Sheets for details). The hue, value, and chroma of the sampled soils were compared to the *Munsell Soil Color Charts* (Kollmorgen, 1990), and a visual inspection of the soil profile analyzed for the presence of hydric soil characteristics (e.g., mottling, oxidized roots, concretions and/or gleying).

The soil types occurring within the property boundary are consistent with those mapped by the U.S. Soil Conservation Service (Soil Survey of El Paso County Area, Colorado, 1971). The channel invert of Black Squirrel Creek and the tributary of Monument Creek consist of Kettle gravelly loamy and Blendon sandy loam soils. In the uplands south of Black Squirrel Creek soils consist primarily of Stapleton sandy loam on 3 to 8 percent slopes, with inclusions of Stapleton sandy loam on 8 to 15 percent slopes and Blakeland loamy sand. Soils in the upland areas north of Black Squirrel Creek consist primarily of Tomah-Crowfoot loamy sands on 8 to 15 percent slopes, interspersed with smaller areas of Stapleton sandy loam, Bresser sandy loam, and Cruckton sandy loam. Kettle-Rock outcrop complex occurs in a steep area in the north-central corner of the site

These soil types do not appear on the Colorado List of Hydric Soils (October 12, 1990), or on the list of Hydric Soils of the United States (USDA SCS 1991). However, soils exhibiting hydric soil characteristics were present at each wetland area on the property. Refer to the attached data sheets for details on the soil profile for each wetland area.

Vegetation

Vegetation was identified to the species level according to guidance provided by *Colorado Flora: Eastern Slope* (Weber and Wittmann, 2001). The *National List of Plant Species That Occur in Wetlands, Regions 4, 5 and 8* (Cowardin *et. al.*, 1979) was referenced to determine the wetland indicator status for each plant. A composite list of the dominant and secondary species associated with the waters and wetlands on the property is located in Table 1.

Hydrology

Hydrology was determined by the presence of either one primary hydrologic indicator or two secondary hydrologic indicators as established by the U.S. Army Corps of Engineers (USACE) 1987 manual. Primary indicators include the presence of inundation, soil saturation, watermarks, drift lines, sediment deposits, and/or drainage patterns in the wetlands. Secondary indictors include the presence of oxidized root channels associated with living roots, water-stained leaves, and/or compatibility with local soil survey data.

Primary hydrology at the site is provided by Black Squirrel Creek and the un-named Monument Creek tributary, and by the series of underground and side slope seeps that occur on the property. Secondary hydrology is provided through the stock ponds and irrigation ditches that conduct water seasonally and during storm events, and through precipitation and snow melt.

JURISDICTIONAL DETERMINATION

WALSH identified a total of 25.77-acres of jurisdictional and 6.59-acres of non-jurisdictional waters of the U.S., including wetlands, in seven locations on the Allison Ranch property. Jurisdictional wetlands consist of the Black Squirrel Creek drainage (Area A), the Monument Creek tributary (Area B-1), and an irrigation ditch connected to Black Squirrel Creek via a culvert (Area C). Non-jurisdictional wetlands consist of a small, isolated wetland area situated at the Voyager Parkway culvert associated with the Monument Creek tributary (Area B-2), an expansive wet meadow above Black Squirrel Creek (Area D), an isolated stock pond with adjacent vegetated bench below one of the dams (Area E), and two adjoining, depressional wetland pockets situated in a remnant channel just east of the ranch structures (Area F). The specific location and acreage of the wetland areas is indicated on Figure 2. Each area is described below and illustrated by the attached photographs.

Jurisdictional Wetlands

Drainage A: Black Squirrel Creek (20.72-acres) - This perennial drainage comprises a wide, winding channel, often with steep, canyon-like side banks. The channel bottom is intermittently vegetated with dense stands of cattails and coyote willow thickets. A series of seven open water ponds occur throughout the drainage. These have been created by human-made dams with elevated culverts that allow some water flow for the length of the channel on the Allison Ranch property. These impoundments have altered the natural flow regime of the creek and provided an environment for narrow bands of vegetation within the channel invert and on benches along the banks formed from sediment deposition.

Area B-1: Monument Creek Tributary (4.07-acres) – This unnamed tributary to Monument Creek begins abruptly upstream from a road/dam that has collapsed into a deep channel in the central portion of the site. A number of side slopes seeps were observed in the channel walls just above the collapsed road. The downstream reaches of the tributary are densely vegetated and contain a series of backwater washes, channel vegetation bars, and an expansive pond. The stream is characterized by steep and canyon-like banks for most of the channel length. The pond is maintained by a large, active beaver dam (as evidenced by the layers of fresh mud and recently broken branches on the exterior of the lodge) situated along the western shoreline. The roadway/dam that crosses the creek below the beaver pond has partially collapsed. Erosion and sediment

control measures (e.g., hay bales) have been installed in the channel below the eroded road to prevent additional sediment from traveling downstream. [Note: subsequent to this study the roadway/dam were repaired by Classic Communities.]

Area C: Black Squirrel Creek Tributary (0.98-acre) – There are two connections between this ditch/slope seep wetland complex and Black Squirrel Creek. One is a culvert from the northwest corner of Pond 7 (Figure 2). The other connection occurs where the ditch flows from a cement-lined T culvert out of Pond 6. The other portion of the flow joins with the main stem of Black Squirrel Creek. Willows and cattail-dominated wetland vegetation in this complex are mostly confined to the invert and banks for the length of the ditch complex. Additionally, a large and dense coyote willow thicket occurs below one ditch section on the side-slope above the main stem of Black Squirrel Creek.

Non-jurisdictional Wetlands

Area B-2: Monument Creek Tributary isolated wetland (0.21-acre) - The terrain above the chasm consists of a meadow swale dominated by upland grasses and Canada thistle. There are no indications that there was ever an active upstream channel (i.e., no low-lying areas, signs of remnant bed or banks, and no wetland vegetation). The westernmost extent of this swale occurs at the northeast corner of the site. A small area of wetland vegetation was observed here in a depression at the mouth of a culvert that crosses under Voyager Parkway, conducting water flow from the east. However, the wetland vegetation transitions to upland meadow grasses and an expansive stand of Canada thistle approximately 50 feet west of the culvert.

Area D: Isolated wet meadow (5.55-acres) - This area consists of an expansive, densely vegetated wet meadow and pond situated just north and slightly upslope of Black Squirrel Creek. The meadow is separated form the creek by uplands that support blue grama, smooth brome and other grasses, as well as earthen berms on the southern boundary. The meadow is composed of a mosaic of wetland plants dominated by coyote willow, short-awn foxtail, bentgrass, and sedges. The pond, which has formed at the lowest point of the meadow at the western end, is encircled with crack and coyote willows and a wide band of cattails. No hydrologic connections, including culverts, are present between this meadow and Black Squirrel Creek.

Area E: Isolated pond/swale (0.83-acre) - Area E is an isolated wetland situated above the Area D wet meadow that appears to be supported hydrologically by seeps, subsurface connections, and slope runoff. A human-made berm holds and backs-up water from these sources. The wetland is bermed on all sides and a road runs along the southern boundary. Vegetation around the perimeter of the shallow pond and in the adjacent mud flats is sparse and consists of cattails, coyote willow, bentgrass, Baltic rush and an unidentified sedge. This basin wetland is completely isolated with no connection to jurisdictional waters or wetlands.

Area F: Remnant drainage (0.19-acre) – This dry drainage crosses the main ranch road and is situated just northeast of the main ranch buildings. The channel has a defined bed and fairly steep, denuded banks, and is dissected by several man-made berms resulting in the formation of a series of isolated basins along the length of the channel. Each basin captures and holds runoff but there is no flow activity between the basins. The lowest basin (between the ranch road and first upstream berm) contains several large dead or dying crack willows. Understory is minimal and the ground is mostly bare ground. Between the second and third berms the basin is densely vegetated with a monotypic population of reed canary-grass. The basin above the third berm is very deep and contains a mixture of Nebraska and water sedges. Above the third basin the drainage is extremely dry and vegetation reverts back to crack willow with a sparse understory. It appears that this area may have had a surface connection with Black Squirrel Creek prior to development of the ranch; however, the presence of a significant berm on the southwest side of the channel impedes any surface water connection to the creek, leaving the two basin wetland areas isolated.

SUMMARY

Jurisdictional wetlands at the Allison Ranch total 25.77-acres; non-jurisdictional wetlands total 6.59-acres. WALSH is herein formally requesting a written verification of the wetland boundaries as identified in the field. Please call me if you have any questions or if I can provide additional information on this delineation.

If you feel that a site visit is necessary and would like a WALSH field scientist to meet with you, please feel free to contact us to arrange a meeting time. Thank you for your time and consideration, and I look forward to hearing from you at your earliest convenience.

Sincerely,

WALSH ENVIRONMENTAL SCIENTISTS AND ENGINEERS, LLC.

Janetta Shepard, PWS
Restoration Ecologist

Cc: Drew Balsick, Classic Communities

Attachments:

- Figure 1: Site Location Map
- Figure 2: Allison Ranch Wetland Map
- Table 1: Plant Species List by Major Community Type
- Field Data Sheets (7)
- Photographs of Wetland Areas (6 photo sheets)

LITERATURE CITED

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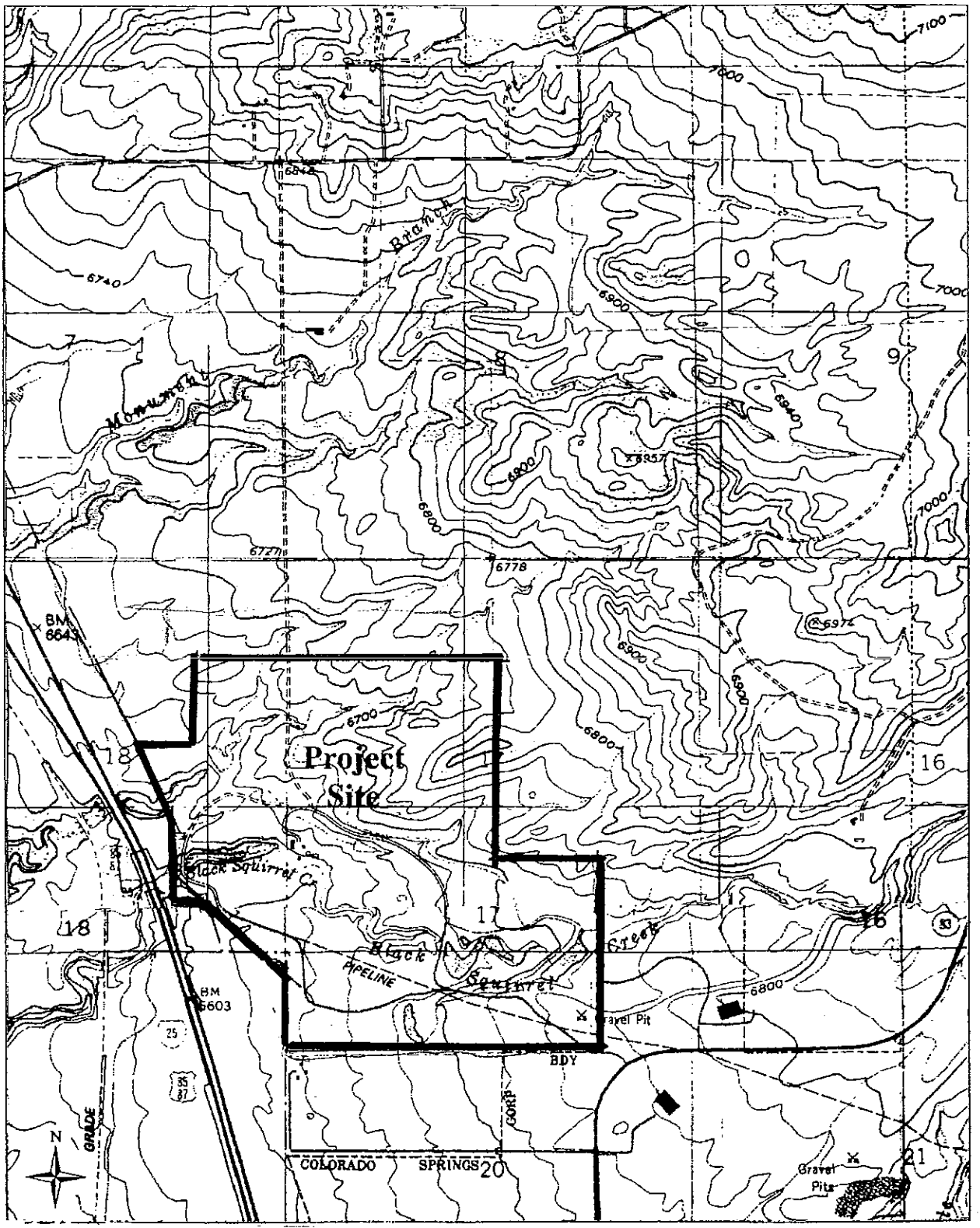

Source: USGS 7.5 minute quadrangles
Pikeview (1994) and Monument (1986), Colorado

Scale in miles: 1:24,000 Average Latitude: N39°01'00" Average Longitude: W104°48'30"

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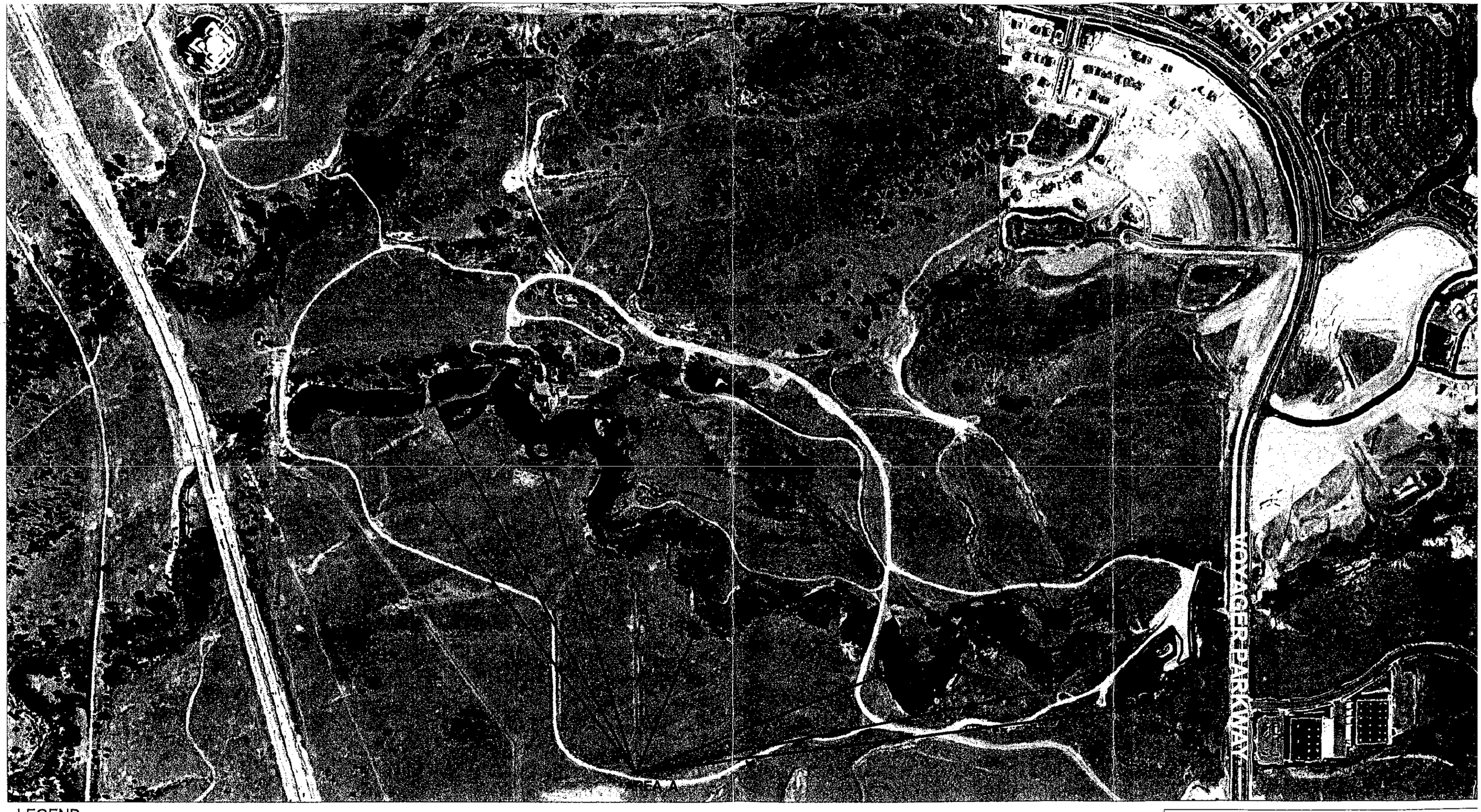
Figure 1
Allison Ranch - Site Location Map



LEGEND

Area A = 20.717 acres, 902432.5 ft²
Area B1 = 4.072 acres, 177376.3 ft²
Area B2 = 0.212 acres, 9234.72 ft²
Area C = 1.572 acres, 68476.32 ft²
Area D = 5.546 acres, 241583.8 ft²
Area E = 0.826 acres, 35980.56 ft²
Area F = 0.188 acres, 8189.28 ft²

N

100 0 100 200 Meters

Walsh
Environmental Scientists and Engineers, LLC

Allison Ranch
Wetland Map

Job 5638 - 020	Date 12/03	Figure 2

Table 1. Plant Species List by Major Community Type
Allison Ranch Jurisdictional Delineation

Community	Scientific Binomial	Common Name	Family	Life Form	Wetland Indicator Status
Creek channel wetland	*Agrostis stolonifera*	Redtop	Poaceae - Grass Family	PG	FAC+
	Carex sp.	Sedge	Cyperaceae - Sedge Family	PG	FACW
	Hippochaete laevigata	Smooth scouring rush	Equisetaceae - Horsetail Family	PF	FACW
	Juncus sp.	Rush	Juncaceae - Rush Family	PG	NO
	Populus angustifolia	Narrowleaf cottonwood	Salicaceae - Willow Family	T	FAC
	Salix exigua	Sandbar willow	Salicaceae - Willow Family	S	OBL
	Typha angustifolia	Narrow-leaved cattail	Typhaceae - Cattail Family	PF	OBL
Pond Fringe wetland	*Agrostis stolonifera*	Redtop	Poaceae - Grass Family	PG	FAC+
	Breea arvensis	Canada thistle	Asteraceae - Sunflower Family	PF	FACU
	Elaeagnus angustifolia	Russian-olive	Elaeagnaceae - Oleaster Family	T	FAC
	Eleocharis acicularis	Spikerush	Cyperaceae - Sedge Family	PG	OBL
	Glycyrrhiza lepidota	Wild licorice	Fabaceae - Pea Family	PF	FAC-
	Juncus arcticus	Rush	Juncaceae - Rush Family	PG	OBL
	Juncus bufonius	Toad rush	Juncaceae - Rush Family	AG	OBL
	Juncus ensifolius	Swordleaf rush	Juncaceae - Rush Family	PG	NO
	Oenothera villosa	Common evening-primrose	Onagraceae - Evening-primrose Family	PF	FAC
	Phalaroides arundinacea	Reed canarygrass	Poaceae - Grass Family	PG	OBL
	Populus angustifolia	Narrowleaf cottonwood	Salicaceae - Willow Family	T	FAC
	Salix exigua	Sandbar willow	Salicaceae - Willow Family	S	OBL
	Solidago canadensis	Canada goldenrod	Asteraceae - Sunflower Family	PF	FACU
	Symphoricarpos occidentalis	Western snowberry	Caprifoliaceae - Honeysuckle Family	S	FACU-
	Typha latifolia	Common cattail	Typhaceae - Cattail Family	PF	OBL
Isolated wet meadow wetland	*Oenothera villosa*	Common evening-primrose	Onagraceae - Evening-primrose Family	PF	FAC
	Salix fragilis	Crack willow	Salicaceae - Willow Family	T	FAC
	Achillea millefolium	Yarrow	Asteraceae - Sunflower Family	PF	FACU
	Breea arvensis	Canada thistle	Asteraceae - Sunflower Family	PF	FACU
	Symphoricarpos occidentalis	Western snowberry	Caprifoliaceae - Honeysuckle Family	S	FACU-
	Carex sp.	Sedge	Cyperaceae - Sedge Family	PG	FACW
	Rumex crispus	Curly dock	Polygonaceae - Buckwheat Family	PF	FACW
	Agrostis sp.	Bentgrass	Poaceae - Grass Family	PG	NL
	Alopecurus aequalis	Water foxtail	Poaceae - Grass Family	PG	OBL
	Juncus arcticus	Rush	Juncaceae - Rush Family	PG	OBL
	Salix exigua	Sandbar willow	Salicaceae - Willow Family	S	OBL
	Typha latifolia	Common cattail	Typhaceae - Cattail Family	PF	OBL
	Linaria vulgaris	Yellow toadflax	Scrophulariaceae - Figwort Family	PF	UPL
	Verbascum thapsus	Common mullein	Scrophulariaceae - Figwort Family	BF	UPL

Table 1. Plant Species List by Major Community Type
Allison Ranch Jurisdictional Delineation

Community	Scientific Binomial	Common Name	Family	Life Form	Wetland Indicator Status
Ditch channel wetland	*Agrostis stolonifera*	Redtop	Poaceae - Grass Family	PG	FAC+
	Bromopsis inermis	Smooth bromegrass	Poaceae - Grass Family	PG	NL
	Juncus arcticus	Rush	Juncaceae - Rush Family	PG	OBL
	Salix exigua	Sandbar willow	Salicaceae - Willow Family	S	OBL
	Typha latifolia	Common cattail	Typhaceae - Cattail Family	PF	OBL
Grass uplands	*Achnatherum hymenoides*	Indian ricegrass	Poaceae - Grass Family	PG	NL
	Acosta diffusa	Diffuse knapweed	Asteraceae - Sunflower Family	BF/PF	NL
	Agropyron desertorum	Crested wheatgrass	Poaceae - Grass Family	PG	NL
	Andropogon gerardii	Big bluestem	Poaceae - Grass Family	PG	FAC-
	Aristida purpurea	Three-awn	Poaceae - Grass Family	PG	NL
	Artemisia frigida	Fringed sagebrush	Asteraceae - Sunflower Family	SS	UPL
	Bromopsis inermis	Smooth bromegrass	Poaceae - Grass Family	PG	NL
	Chondrosum gracile	Blue grama	Poaceae - Grass Family	PG	NL
	Elymus canadensis	Canada wild rye	Poaceae - Grass Family	PG	FACU
	Eriogonum effusum	Spreading wild buckwheat	Polygonaceae - Buckwheat Family	PF	NL
	Hesperostipa comata	Needle-and-thread	Poaceae - Grass Family	PG	UPL
	Heterotheca villosa	Hairy golden aster	Asteraceae - Sunflower Family	SS	UPL
	Juncus sp.	Rush	Juncaceae - Rush Family	PG	NL
	Schizachyrium scoparium	Little bluestem	Poaceae - Grass Family	PG	FACU
	Schoenoplectus sp.	Bulrush	Cyperaceae - Sedge Family	PG	OBL
	Yucca glauca	Yucca	Agavaceae - Agave Family	SU	NL

Table 1. Plant Species List by Major Community Type
Allison Ranch Jurisdictional Delineation

Community	Scientific Binomial	Common Name	Family	Life Form	Wetland Indicator Status
Wooded uplands	*Acosta diffusa*	Diffuse knapweed	Asteraceae - Sunflower Family	BF/PF	NL
	Artemisia frigida	Fringed sagebrush	Asteraceae - Sunflower Family	SS	UPL
	Aster sp.	Aster	Asteraceae - Sunflower Family	PF	NL
	Carex heliophila	Sedge	Cyperaceae - Sedge Family	PG	NL
	Cercocarpus montanus	Mountain-mahogany	Rosaceae - Rose Family	S	NL
	Chondrosum gracile	Blue grama	Poaceae - Grass Family	PG	NL
	Conyza canadensis	Horseweed	Asteraceae - Sunflower Family	AF	FACU-
	Elaeagnus angustifolia	Russian-olive	Elaeagnaceae - Oleaster Family	T	FAC
	Elymus canadensis	Canada wild rye	Poaceae - Grass Family	PG	FACU
	Glycyrrhiza lepidota	Wild licorice	Fabaceae - Pea Family	PF	FAC-
	Linaria vulgaris	Yellow toadflax	Scrophulariaceae - Figwort Family	PF	UPL
	Muhlenbergia montana	Mountain muhly	Poaceae - Grass Family	PG	NO
	Opuntia sp.	Prickly pear	Cactaceae - Cactus Family	SU	NL
	Pascopyrum smithii	Western wheatgrass	Poaceae - Grass Family	PG	FACU
	Pinus ponderosa	Ponderosa pine	Pinaceae - Pine Family	T	NL
	Quercus gambelii	Gambel's oak	Fagaceae - Oak Family	S	UPL
	Rhus aromatica var. trilobata	Skunkbrush	Anacardiaceae - Sumac Family	S	NI
	Rosa sp.	Wild rose	Rosaceae - Rose Family	S	NL
	Senecio spartioides	Groundsel	Asteraceae - Sunflower Family	PF/SS	UPL
	Solidago canadensis	Canada goldenrod	Asteraceae - Sunflower Family	PF	FACU
	Symphoricarpos occidentalis	Western snowberry	Caprifoliaceae - Honeysuckle Family	S	FACU-
Degraded uplands	*Acosta diffusa*	Diffuse knapweed	Asteraceae - Sunflower Family	BF/PF	NL
	Artemisia frigida	Fringed sagebrush	Asteraceae - Sunflower Family	SS	UPL
	Eriogonum annuum	Annual eriogonun	Polygonaceae - Buckwheat Family	AF	FACU
	Hesperostipa comata	Needle-and-thread	Poaceae - Grass Family	PG	UPL
	Linaria vulgaris	Yellow toadflax	Scrophulariaceae - Figwort Family	PF	UPL
	Nuttallia sp.	Blazingstar	Loasaceae - Loasa Family	PF	UPL
	Polygonum arenastrum	Prostrate knotweed	Polygonaceae - Buckwheat Family	AF	FACW
	Verbascum thapsus	Common mullein	Scrophulariaceae - Figwort Family	BF	UPL

Walsh Environmental, Inc. - Jurisdictional Determination Data Sheet

Project/Site: Allison Ranch			Project No: 5638-010	Date: November 11-12, 2003
Applicant/Owner: Classic Communities				County: El Paso
Investigator: Janetta Shepard, Maureen O'Shea Stone				State: CO
Do normal circumstances exist on the site?	Yes X	No	Plot ID: Area B-2 – Isolated wetland at Monument Creek Tributary	Test Plot: #2
Is the site significantly disturbed (Atypical Situation)?	Yes	No X	Field Location: East boundary culvert at Voyager Parkway	
Is the area a potential Problem Area	Yes	No X	Vegetation Community: palustrine emergent persistent (PEP), and scrub-shrub (SS)	

Vegetation

Dominant Plant Species:	Stratum	Indicator	Dominant Plant Species:	Stratum	Indicator
Symphoricarpos occidentalis	Shrub	FACU-			
Salix exigua	Shrub	OBL			
Phalaris arundinacea	Herb	FACW+			
Typha latifolia	Herb	OBL			
Agrostis stolonifera	Herb	FAC+			
Breea arvense	Herb	FACU			

% of dominant species that are OBL, FACW and/or FAC (excluding FAC-): >50%

Remarks: Wetland vegetation is segregated into discrete pockets and occurs in a series of depressions in front of the culvert. Surrounding vegetation consists of upland shrubs and grasses, and an expansive field of Canada thistle dominates the upland hay fields to the west.

Soils

Profile Description:			
Depth (inches)	Matrix Color	Mottle Color/Abundance	Texture
0-18	10YR 3/2	None visible	Sandy clay

Hydric Soils Indicators:

X Low-Chroma Colors	☐ Low-Chroma and Mottles	☐ Sulfidic Odor
☐ Gleyed w/Low-Chroma Colors	☐ Histic Epipedon	☐ Concretions
☐ High Organic Content (sandy)	☐ Organic Streaking (sandy)	☐ Alluvial Sands, Gravel or Cobble

Remarks:

Hydrology

Is the ground surface inundated?	Yes ☐	No ☐	Surface water depth: N/A
Is the soil saturated?	Yes X	No ☐	Depth to Saturation: 2 inches

Depth to free-standing water in pit:

Wetland Hydrology Indicators:

Primary Indicators:		Secondary Indicators:
☐ Inundated	☐ Drift Lines	☐ Oxidized Root Channels in Upper 12 inches
X Saturated in upper 12 inches	X Sediment Deposits	☐ Water-stained Leaves
☐ Water Marks	☐ Drainage Patterns	

Remarks: Hydrology provided from the extended culvert which channels runoff under Voyager Parkway from developments on the east side of the roadway.

Jurisdictional Determination

Hydrophytic Vegetation Present?	Yes X	No	Wetland Hydrology Present?	Yes X	No
Hydrophytic Vegetation Dominant?	Yes X	No	Is the plant community a wetland?	Yes X	No
Hydric Soils Present?	Yes X	No	Is the area a Water of the U.S.?	Yes	No X

Remarks:

This area is an isolated wetland at the mouth of the eastern property boundary. Surrounding vegetation does not support wetland plants and soils outside of the wetland pockets are extremely dry. There is no defined bed/banks and no indications that this wetland ever conducted water.

Walsh Environmental, Inc. - Jurisdictional Determination Data Sheet

Project/Site: Allison Ranch			Project No: 5638-010	Date: November 11-12, 2003
Applicant/Owner: Classic Communities				County: El Paso
Investigator: Janetta Shepard, Maureen O'Shea Stone				State: CO
Do normal circumstances exist on the site?	Yes X	No	Plot ID: Area C – Black Squirrel Ck Tributary – (drainage ditch)	Test Plot: #1
Is the site significantly disturbed (Atypical Situation)?	Yes	No X	Field Location: Central section of the ditch that runs parallel to and above Black Squirrel Creek on the eastern end of the property.	
Is the area a potential Problem Area	Yes	No X	Vegetation Community: palustrine emergent persistent (PEP), and scrub-shrub (SS)	

Vegetation

Dominant Plant Species:	Stratum	Indicator	Dominant Plant Species:	Stratum	Indicator
Salix exigua	Shrub	OBL			
Phalaris arundinacea	Herb	FACW+			
Agrostis stolonifera	Herb	FAC+			
Bromopsis inermis	Herb	FACU			

% of dominant species that are OBL, FACW and/or FAC (excluding FAC-): 85%
Remarks: Wetland vegetation is confined to the channel and side banks of the ditch and transitions abruptly to agricultural grasses.

Soils

Profile Description:			
Depth (inches)	Matrix Color	Mottle Color/Abundance	Texture
0-18	10YR 3/1	None visible	Sandy clay

Hydric Soils Indicators:

X Low-Chroma Colors	☐ Low-Chroma and Mottles	☐ Sulfidic Odor
☐ Gleyed w/Low-Chroma Colors	☐ Histic Epipedon	☐ Concretions
☐ High Organic Content (sandy)	☐ Organic Streaking (sandy)	X Alluvial Sands, Gravel or Cobble

Remarks: Abundant cobbles present in upper 10 inches of soil profile.

Hydrology

Is the ground surface inundated?	Yes X	No ☐	Surface water depth: 1-2 inches
Is the soil saturated?	Yes X	No ☐	Depth to Saturation: 2 inches

Depth to free-standing water in pit:

Wetland Hydrology Indicators:

Primary Indicators:		Secondary Indicators:
X Inundated	☐ Drift Lines	☐ Oxidized Root Channels in Upper 12 inches
X Saturated in upper 12 inches	X Sediment Deposits	☐ Water-stained Leaves
X Water Marks	X Drainage Patterns	

Remarks: Hydrology provided from Black Squirrel Creek. Water was trickle flowing from east to west.

Jurisdictional Determination

Hydrophytic Vegetation Present?	Yes X	No	Wetland Hydrology Present?	Yes X	No
Hydrophytic Vegetation Dominant?	Yes X	No	Is the plant community a wetland?	Yes X	No
Hydric Soils Present?	Yes X	No	Is the area a Water of the U.S.?	Yes X	No

Remarks:
The length of the ditch was traversed to its confluence with Black Squirrel Creek at the eastern end of the property. The two channels are connected at a T-culvert where flows from Black Squirrel Creek daylight from the culvert under Voyager Parkway.

Walsh Environmental, Inc. - Jurisdictional Determination Data Sheet

Project/Site: Allison Ranch			Project No: 5638-010	Date: November 11-12, 2003
Applicant/Owner: Classic Communities				County: El Paso
Investigator: Janetta Shepard, Maureen O'Shea Stone				State: CO
Do normal circumstances exist on the site?	Yes X	No	Plot ID: Area D – Isolated Wet Meadow above Black Squirrel Creek	Test Plot: #1
Is the site significantly disturbed (Atypical Situation)?	Yes	No X	Field Location: Open herbaceous meadow at the northeast end of the wetland, and just west of the coyote willow thicket.	
Is the area a potential Problem Area	Yes	No X	Vegetation Community: palustrine emergent persistent (PEP), and scrub-shrub (SS)	

Vegetation

Dominant Plant Species:	Stratum	Indicator	Dominant Plant Species:	Stratum	Indicator
Salix exigua	Shrub	OBL			
Carex nebrascensis	Herb	OBL			
Carex aquatilis	Herb	OBL			
Agrostis stolonifera	Herb	FAC+			
Alopecurus aequalis	Herb	OBL			

% of dominant species that are OBL, FACW and/or FAC (excluding FAC-): 100%

Remarks: The expansive meadow is densely vegetated and dominated by sedges and redtop. Thickets of coyote willows are situated along the eastern and western boundaries, and the pond at the western end of the meadow (downslope from the willows) is ringed with crack and peach-leaf willows and a large cattail marsh.

Soils

Profile Description:			
Depth (inches)	Matrix Color	Mottle Color/Abundance	Texture
0-10	10YR 2/2	None visible	Sandy clay
10-18	10YR 2/1	None visible	Sandy clay

Hydric Soils Indicators:

X Low-Chroma Colors	☐ Low-Chroma and Mottles	☐ Sulfidic Odor
☐ Gleyed w/Low-Chroma Colors	☐ Histic Epipedon	☐ Concretions
☐ High Organic Content (sandy)	☐ Organic Streaking (sandy)	☐ Alluvial Sands, Gravel or Cobble

Remarks: Presence of sand deposits increases below 10 inches.

Hydrology

Is the ground surface inundated?	Yes ☐	No ☐	Surface water depth: None visible
Is the soil saturated?	Yes X	No ☐	Depth to Saturation: surface
Depth to free-standing water in pit:			

Wetland Hydrology Indicators:

Primary Indicators:		Secondary Indicators:
☐ Inundated	☐ Drift Lines	☐ Oxidized Root Channels in Upper 12 inches
X Saturated in upper 12 inches	☐ Sediment Deposits	☐ Water-stained Leaves
☐ Water Marks	☐ Drainage Patterns	

Remarks: Hydrology provided from side slope seeps north of the wetland.

Jurisdictional Determination

Hydrophytic Vegetation Present?	Yes X	No	Wetland Hydrology Present?	Yes X	No
Hydrophytic Vegetation Dominant?	Yes X	No	Is the plant community a wetland?	Yes X	No
Hydric Soils Present?	Yes X	No	Is the area a Water of the U.S.?	Yes	No X

Remarks:

The wetland is situated upslope from the creek and separated by a ranch road from the series of natural side slope seeps that support the wetland. It may have been hydrologically connected with Black Squirrel Creek at the western end of the meadow at one time, but the presence of a large dirt berm above the pond has created an impermeable barrier between the two areas. Therefore, the meadow is a non-jurisdictional, isolated wetland.

Walsh Environmental, Inc. - Jurisdictional Determination Data Sheet

Project/Site: Allison Ranch			Project No: 5638-010	Date: November 11-12, 2003
Applicant/Owner: Classic Communities				County: El Paso
Investigator: Janetta Shepard, Maureen O'Shea Stone				State: CO
Do normal circumstances exist on the site?	Yes X	No	Plot ID: Area E – Isolated wetland basin w/pond	Test Plot: #1
Is the site significantly disturbed (Atypical Situation)?	Yes	No X	Field Location: Surrounded by berms and the ranch road on all sides, this wetland is located in the north-central section of the property, and northwest of the Area D wet meadow.	
Is the area a potential Problem Area	Yes	No X	Vegetation Community: palustrine emergent persistent (PEP), and scrub-shrub (SS)	

Vegetation

Dominant Plant Species:	Stratum	Indicator	Dominant Plant Species:	Stratum	Indicator
Salix exigua	Shrub	OBL			
Typha latifolia	Herb	OBL			
Carex utriculata	Herb	OBL			
Juncus arcticus	Herb	OBL			
Juncus bufonius	Herb	OBL			

% of dominant species that are OBL, FACW and/or FAC (excluding FAC-): 100%
Remarks: Vegetation is sparse but diverse on the bench wetland at the eastern end of the site. The small, shallow pond at the western end of the basin is ringed with small populations of coyote willows and cattails. The majority of the basin is barren ground.

Soils

Profile Description:			
Depth (inches)	Matrix Color	Mottle Color/Abundance	Texture
0-12	10YR 4/1	10YR 5/4 – abundant mottles	Clayey sand
12-18	10YR 5/2	None visible	Sandy clay

Hydric Soils Indicators:

X Low-Chroma Colors	☐ Low-Chroma and Mottles	☐ Sulfidic Odor
☐ Gleyed w/Low-Chroma Colors	☐ Histic Epipedon	☐ Concretions
☐ High Organic Content (sandy)	☐ Organic Streaking (sandy)	X Alluvial Sands, Gravel or Cobble

Remarks: Soils were completed inundated throughout the profile.

Hydrology

Is the ground surface inundated?	Yes X	No ☐	Surface water depth: A barely visible surface layer - <1/2 inch
Is the soil saturated?	Yes X	No ☐	Depth to Saturation: surface
Depth to free-standing water in pit:			

Wetland Hydrology Indicators:

Primary Indicators:		Secondary Indicators:
X Inundated	☐ Drift Lines	☐ Oxidized Root Channels in Upper 12 inches
X Saturated in upper 12 inches	☐ Sediment Deposits	☐ Water-stained Leaves
☐ Water Marks	☐ Drainage Patterns	

Remarks: Hydrology provided from culvert above west-end pond that directs surrounding runoff into basin, and by side slope runoff from the surrounding steep banks.

Jurisdictional Determination

Hydrophytic Vegetation Present?	Yes X	No	Wetland Hydrology Present?	Yes X	No
Hydrophytic Vegetation Dominant?	Yes X	No	Is the plant community a wetland?	Yes X	No
Hydric Soils Present?	Yes X	No	Is the area a Water of the U.S.?	Yes	No X

Remarks:
This isolated, basin wetland acts as a detention basin and captures runoff from side slopes on all sides. It is self-contained with no connection to jurisdictional waters or wetlands, and therefore is a non-jurisdictional wetland.

Walsh Environmental, Inc. - Jurisdictional Determination Data Sheet

Project/Site: Allison Ranch			Project No: 5638-010	Date: November 11-12, 2003
Applicant/Owner: Classic Communities				County: El Paso
Investigator: Janetta Shepard, Maureen O'Shea Stone				State: CO
Do normal circumstances exist on the site?	Yes X	No	Plot ID: Area F – Isolated wetlands in remnant channel	Test Plot: #1
Is the site significantly disturbed (Atypical Situation)?	Yes	No X	Field Location: Situated just west of ranch buildings and just north of main ranch access road.	
Is the area a potential Problem Area	Yes	No X	Vegetation Community: palustrine emergent persistent (PEP)	

Vegetation

Dominant Plant Species:	Stratum	Indicator	Dominant Plant Species:	Stratum	Indicator
Carex nebrascensis	Herb	OBL			
Carex aquatilis	Herb	OBL			
Phalaris arundinacea	Herb	OBL			

% of dominant species that are OBL, FACW and/or FAC (excluding FAC-): 100%
Remarks: Vegetation occurs across the bottoms of two adjacent basins separated by berms. The southern basin contains a monotypic stand of reed canary-grass and the northern basin is vegetated with sedges. Vegetation is restricted by the steep side banks. The channel outside of these basins consists of dying or dead crack willows and barren ground.

Soils

Profile Description:			
Depth (inches)	Matrix Color	Mottle Color/Abundance	Texture
0-2	10YR 2/1	None visible	Loam w/organic material
2-18	10YR 2/1 and 10YR 2/2	None visible	Sandy loam w/large cobbles

Hydric Soils Indicators:

X Low-Chroma Colors	☐ Low-Chroma and Mottles	☐ Sulfidic Odor
☐ Gleyed w/Low-Chroma Colors	☐ Histic Epipedon	☐ Concretions
☐ High Organic Content (sandy)	☐ Organic Streaking (sandy)	X Alluvial Sands, Gravel or Cobble

Remarks: Soils were completed inundated throughout the profile.

Hydrology

Is the ground surface inundated?	Yes X	No ☐	Surface water depth: Varied between 1 and 3 inches.
Is the soil saturated?	Yes X	No ☐	Depth to Saturation: surface
Depth to free-standing water in pit:			

Wetland Hydrology Indicators:

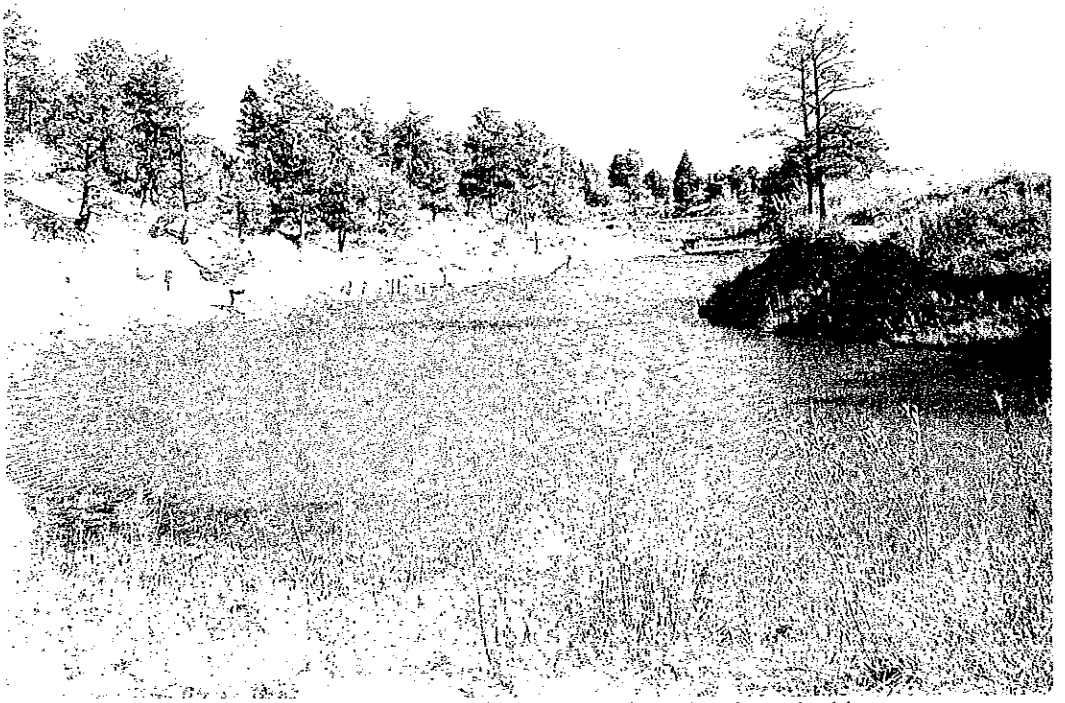
Primary Indicators:		Secondary Indicators:
X Inundated	☐ Drift Lines	☐ Oxidized Root Channels in Upper 12 inches
X Saturated in upper 12 inches	☐ Sediment Deposits	☐ Water-stained Leaves
☐ Water Marks	☐ Drainage Patterns	

Remarks: Hydrology provided from side slope runoff, which collects in the bottom of the basins.

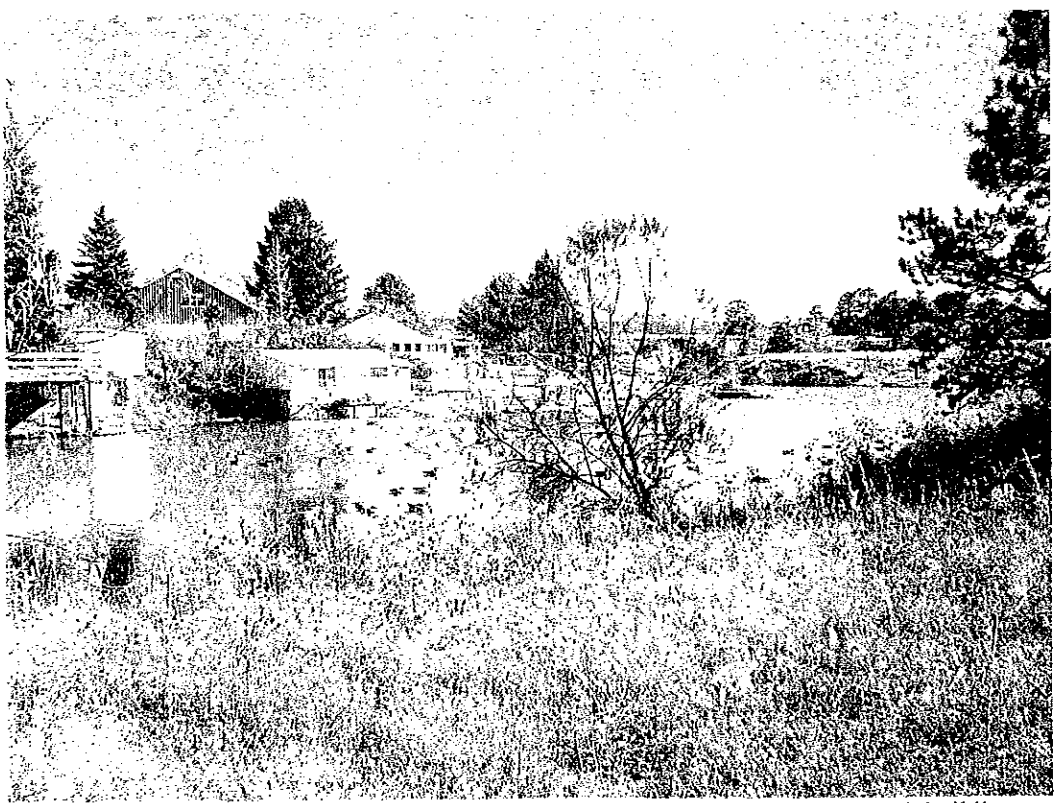
Jurisdictional Determination

Hydrophytic Vegetation Present?	Yes X	No	Wetland Hydrology Present?	Yes X	No
Hydrophytic Vegetation Dominant?	Yes X	No	Is the plant community a wetland?	Yes X	No
Hydric Soils Present?	Yes X	No	Is the area a Water of the U.S.?	Yes	No X

Remarks:
The channel has intermittently defined bed/banks and is divided by a series of man-made berms. The downslope basin and channel above the wetland basins are dry with marginal soils and crack willow trees that are dead or in very marginal condition. There is no surface or subsurface connection with jurisdictional waters and this area is an isolated, non-jurisdictional wetland.



Area A: Black Squirrel Creek - Pond #1 from west boundary berm looking upstream



Area A: Black Squirrel Creek – Overview of Pond 4 (w/Canadian geese) and ranch buildings

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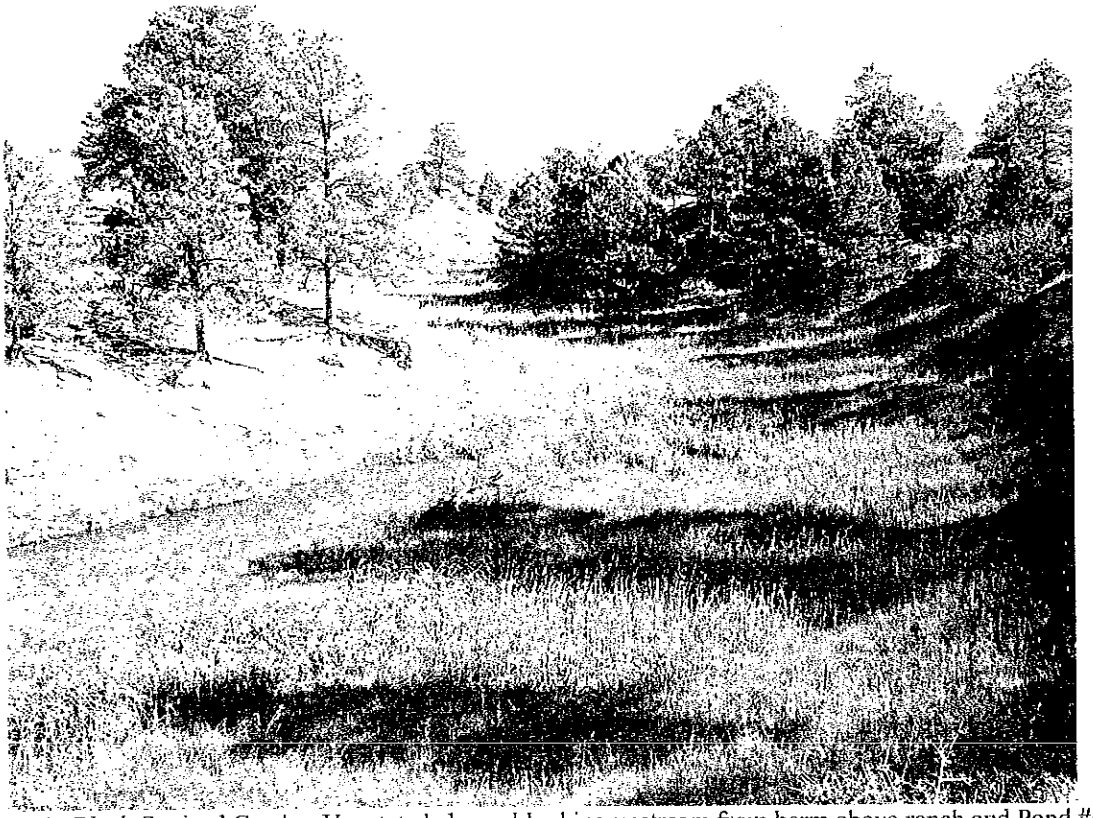

Area A: Black Squirrel Creek – Vegetated channel looking upstream from berm above ranch and Pond #4

Area B-1: Monument Creek Tributary – looking at headwaters w/upland hay fields in background

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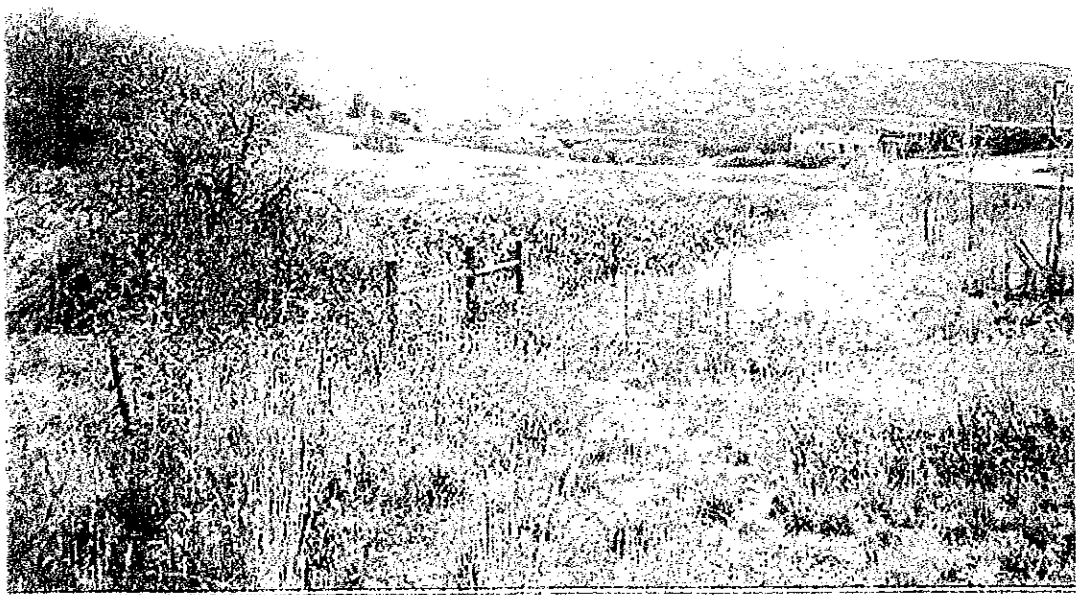
Area B-1: Monument Creek Tributary – Close-up of hay fields upstream from headwaters of creek



Area B-2: Monument Creek Tributary – Isolated wetland at east boundary of property (Hayfields in background). Note field of Canada thistle at edge of wetland in center of photo.

Area C: Black Squirrel Creek Tributary – Vegetated channel bounded by hayfields above Black Squirrel Creek

Area C: Black Squirrel Creek Tributary – Overview of channel bank willows near confluence with Black Squirrel Creek culvert

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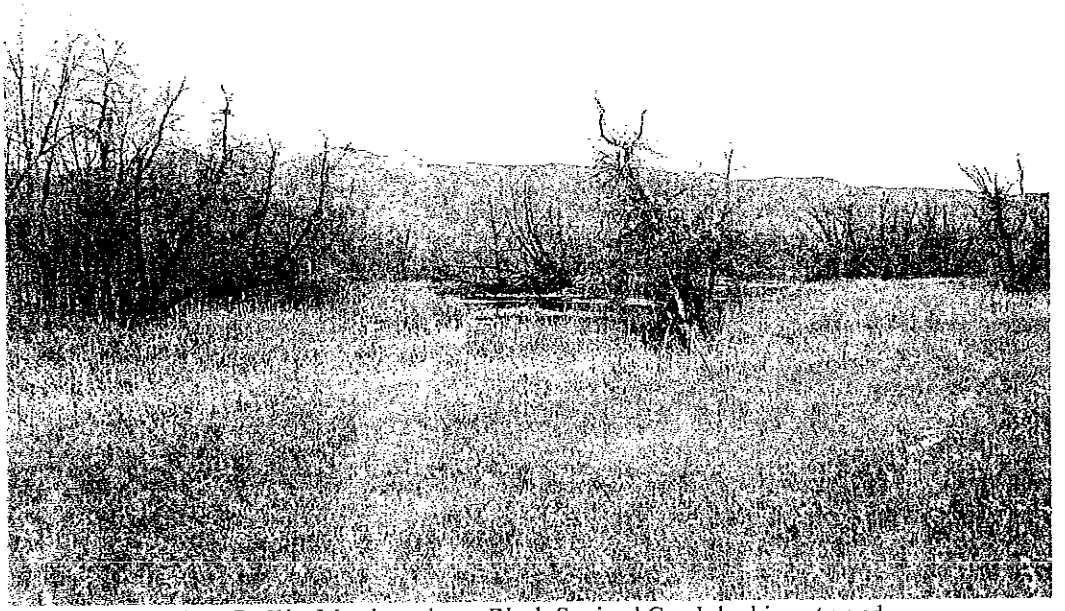

Area D: Wet Meadow above Black Squirrel Creek looking at pond

Area D – From east side of wet meadow looking west across grasses/sedges to coyote willow thickets

Area E: – Overview of isolated bench wetland and pond

Area F: Overview of remnant channel basin dominated by reed canary-grass

Walsh Environmental, Inc. - Jurisdictional Determination Data Sheet

Project/Site: Allison Ranch	Project No: 5638-010	Date: November 11-12, 2003
Applicant/Owner: Classic Communities		County: El Paso
Investigator: Janetta Shepard, Maureen O'Shea Stone		State: CO

Do normal circumstances exist on the site?	Yes X	No	Plot ID: Area A - Black Squirrel Ck.	Test Plot: #1
Is the site significantly disturbed (Atypical Situation)?	Yes	No X	Field Location: Edge of ponds located just west (downstream) of ranch structures.	
Is the area a potential Problem Area	Yes	No X	Vegetation Community: palustrine emergent persistent (PEP), and scrub-shrub (SS)	

Vegetation

Dominant Plant Species:	Stratum	Indicator	Dominant Plant Species:	Stratum	Indicator
Salix exigua	Shrub	OBL			
Typha latifolia	Herb	OBL			
Agrostis stolonifera	Herb	FAC+			
Linaria vulgaris	Herb	NI			
Solidago sp.	Herb				

% of dominant species that are OBL, FACW and/or FAC (excluding FAC-): >50%

Remarks: Vegetation relegated to pond fringe. Steeply sloped banks exhibited minimal vegetative cover. Wetland plants were in good condition and the area was relatively weed-free. Coyote willow regeneration is occurring in this area, and the dominant vegetative species are cattails and willows.

Soils

Profile Description:			
Depth (inches)	Matrix Color	Mottle Color/Abundance	Texture
0-2	10YR 4/2	None visible	Sandy loamy clay w/cobbles
2-16	10YR 4/1	None visible	Sandy clay

Hydric Soils Indicators:

X Low-Chroma Colors	☐ Low-Chroma and Mottles	☐ Sulfidic Odor
☐ Gleyed or Low-Chroma Colors	☐ Histic Epipedon	☐ Concretions
☐ High Organic Content (sandy)	☐ Organic Streaking (sandy)	X Alluvial Sands, Gravel or Cobble

Remarks: Alluvial content more predominant at surface, presence of sandy soils decreased somewhat with depth.

Hydrology

Is the ground surface inundated?	Yes ☐	No X	Surface water depth: no visible surface water
Is the soil saturated?	Yes X	No ☐	Depth to Saturation: 4 inches

Depth to free-standing water in pit:

Wetland Hydrology Indicators:

Primary Indicators:		Secondary Indicators:
☐ Inundated	X Drift Lines	☐ Oxidized Root Channels in Upper 12 inches
X Saturated in upper 12 inches	☐ Sediment Deposits	☐ Water-stained Leaves
X Water Marks	☐ Drainage Patterns	

Remarks: Hydrology provided from Black Squirrel Creek

Jurisdictional Determination

Hydrophytic Vegetation Present?	Yes X	No	Wetland Hydrology Present?	Yes X	No
Hydrophytic Vegetation Dominant?	Yes X	No	Is the plant community a wetland?	Yes X	No
Hydric Soils Present?	Yes X	No	Is the area a Water of the U.S.?	Yes X	No

Remarks:

Three adjoining ponds are clustered in this area. Vegetative density varies but is denser and more diverse in proximity to the culverts that connect them to each other. Data collected at this location is representative of the character of the creek as it occurs on the Allison Ranch property.

Walsh Environmental, Inc. - Jurisdictional Determination Data Sheet

Project/Site: Allison Ranch			Project No: 5638-010	Date: November 11-12, 2003
Applicant/Owner: Classic Communities				County: El Paso
Investigator: Janetta Shepard, Maureen O'Shea Stone				State: CO
Do normal circumstances exist on the site?	Yes X	No	Plot ID: Area B-1 – Monument Creek Tributary	Test Plot: #1
Is the site significantly disturbed (Atypical Situation)?	Yes	No X	Field Location: Backwater wetland just below collapsed ranch road & downstream from headwaters of drainage.	
Is the area a potential Problem Area	Yes	No X	Vegetation Community: palustrine emergent persistent (PEP), and scrub-shrub (SS)	

Vegetation

Dominant Plant Species:	Stratum	Indicator	Dominant Plant Species:	Stratum	Indicator
Salix exigua	Shrub	OBL			
Carex nebrascensis	Herb	OBL			
Carex aquatilis	Herb	OBL			
Equisetum laevigatum	Herb	FACW			

% of dominant species that are OBL, FACW and/or FAC (excluding FAC-): 100%
Remarks: Blanket of moss covers the surface of the bench wetland that has formed at the edge of the backwater area. Clusters of coyote willow occur along the sides of the stream banks, the interior of the backwater wetland is dominated by expansive stands of sedges, and a fringe of horsetail lines the outer edges (wetland/upland interface) of the area.

Soils

Profile Description:			
Depth (inches)	Matrix Color	Mottle Color/Abundance	Texture
0-6	10YR 4/2	None visible	Clay mixed with organic material
6-18	10YR 5/2	5YR 4/3 - moderate abundance	Clay

Hydric Soils Indicators:

☐ Low-Chroma Colors	X Low-Chroma and Mottles	☐ Sulfidic Odor
☐ Gleyed w/Low-Chroma Colors	☐ Histic Epipedon	☐ Concretions
☐ High Organic Content (sandy)	☐ Organic Streaking (sandy)	☐ Alluvial Sands, Gravel or Cobble

Remarks:

Hydrology

Is the ground surface inundated?	Yes X	No ☐	Surface water depth: no visible surface water
Is the soil saturated?	Yes X	No ☐	Depth to Saturation: surface
Depth to free-standing water in pit:			

Wetland Hydrology Indicators:

Primary Indicators:		Secondary Indicators:
X Inundated	☐ Drift Lines	☐ Oxidized Root Channels in Upper 12 inches
X Saturated in upper 12 inches	X Sediment Deposits	☐ Water-stained Leaves
☐ Water Marks	☐ Drainage Patterns	

Remarks: Hydrology provided from Black Squirrel Creek

Jurisdictional Determination

Hydrophytic Vegetation Present?	Yes X	No	Wetland Hydrology Present?	Yes X	No
Hydrophytic Vegetation Dominant?	Yes X	No	Is the plant community a wetland?	Yes X	No
Hydric Soils Present?	Yes X	No	Is the area a Water of the U.S.?	Yes X	No

Remarks:
This reach of the creek is bounded by steep-sided banks and is predominantly a water of the U.S. Vegetation along the sides of the creek is tight, but the species are dense and appear to be in very good condition.

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DRAINAGE MAP