

Mill Creek Watershed Joint District #85

Site #154 Mitigation Plan

Enclosed is the mitigation plan (PLAN) for site #154 proposed for construction in the NE/4 of the SW/4 of Section 10, Township 13 South, Range 9 East, Wabaunsee County, Kansas.

This PLAN will be implemented concurrent with construction of site #154, with installation measures of the PLAN complete and a notarized copy of the enclosed Mitigation Easement submitted to the Corps of Engineers within a period no later than one (1) year following completion of the project. Any amendments to the plan will be submitted to the Corps of Engineers for review and approval prior to implementation.

Signatures indicate approval of compensatory mitigation for construction of Site #154.

Print name: _____ Signature: _____
Mill Creek Watershed District #85, President

Print name: _____ Signature: _____
Corps of Engineers

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Wildlife Habitat Easement

Know All men by these present that the _____ hereafter referred to as GRANTOR, in consideration of the sum of One U.S. Dollar (\$1.00) and other good and valuable consideration, paid by the _____ Mill Creek Watershed District #85 hereinafter referred to as GRANTEE, the receipt and sufficiency of which is hereby acknowledged, does hereby grant, bargain, sell, transfer, and convey to the GRANTEE, its successors, and assigns, a WILDLIFE HABITAT EASEMENT under the terms and condition as hereinafter set out for a period of time that will exist as long as Site No. _____ 154, a constructed dam and associated structures, exists and functions for its intended purpose as defined by GRANTEE.

That the terms and conditions of this easement shall be as follows:

1. That this easement shall cover the following real estate described to wit and identified in accompanying mitigation plan:
 - A. **Area #1:** Approximately 2.0 acres more or less located in the S/2 of the SE/4 of the NW/4 of Sec. 10, T13S, R9E, Wabaunsee County, Kansas.
 - B. **Area #2:** Approximately 2.7 acres more or less located in the NW/4 of the SW/4 of the NW/4 of Sec. 10, T13S, R9E, Wabaunsee County, Kansas.
 - C. **Area #3:** Approximately 4.9 acres more or less located in the NW/4 of the SW/4 of the NW/4 of Sec. 10, T13S, R9E, Wabaunsee County, Kansas
2. That all conditions of the attached MITIGATION PLAN (hereafter referred to as **PLAN**) set for Site _____ 154 shall be implemented and maintained during the period of the easement.
3. That the right of ingress and egress across GRANTOR’S real estate is hereby granted to the GRANTEE for the purpose of going in and out of this easement area above described for the purpose of implementing, maintaining, and evaluating the **PLAN**.
4. That any revenues derived from the management of the easement will belong to the landowner, tenant, or person(s) appointed by the GRANTOR.

TO HAVE AND TO HOLD the aforementioned easement in, over and upon the above described land of the GRANTOR, with all rights privileges and appurtenances thereto belonging or in anywise appertaining, unto the GRANTEE, its successors and assigns for the life of the structure

IN WITNESS WEREOF the said GRANTOR has executed this instrument on this _____ Day of _____ in the Year _____.

(GRANTOR) - Leland Schultz

(GRANTEE) – Mill Creek Watershed District #85

COVER PAGE

The following mitigation plan (PLAN) will be implemented prior to, or concurrent with, the initiation of construction of the watershed site described below. Amendments may be made to this plan contingent upon approval from the Corps of Engineers. Status reports will be submitted annually one year from the period of approval of the PLAN, unless otherwise required by the Corps of Engineers.

GOAL: This PLAN is proposed to offset the loss of habitat that will occur with construction of:

Watershed Joint District: Mill Cr. WJD #85 Site: #154

Impact Acres: Pool = 3.3 Dam & spillway = 2.0

Location: SW/4 of Section(s):10 Township:13S Range: 9E CO: Wabaunsee

Provide additional legal description below:

N/A

Construction of this impoundment will result in the loss of:

Habitat type	R-value	Acres	Habitat Units Lost
Riparian woodlands	7.0	4	28
Upland Woodlands	7.0	1.3	9.1
Rangeland			0
Pastureland			0
Cropland			0
Wetland			0
Odd areas			0
Stream (use linear feet instead of acres) HU=(L.F. x R-value) ÷ 100	4.5	LF = 1,000	45

Implementation of this mitigation plan will result in the gain of:

Habitat type	Habitat Units Gained	+/- Difference in HUs
Riparian woodlands	38.9	+ 11.9
Upland Woodlands	0	- 9.1
Rangeland	0	N/A
*Pastureland (Predicted R-value =5)	10.0 (dam & spillway)	+ 10.0
Cropland	0	N/A
Wetland	0	N/A
Odd areas	0	N/A
Stream	0	- 45.0
Lake (Acres X predicted R-value) R = 4.5	15	+ 15

*Creation of grassland habitat will result from seeding the dam & spillway to a mixture of native grasses & forbs. Care will be taken to insure Serecia lespedeza is absent from seed stock. R-value of 5 predicted by exclusion of grazing livestock.

The following mitigation site identified as Area # 1

LEGAL DESCRIPTION:

Project located on approximately 2.0 acres in S/2 of SE/4 of NW/4 Section 10
Township 13s Range 9e County: Wabaunsee

if other coordinates are used please provide:

N/A

See attached maps identifying the boundaries of the AREA #1.

Habitat type: Riparian Woodland Habitat Units gained: 3.2

Habitat Units will be gained through (check one):

Protection of existing timber X Timber establishment

Characteristics of mitigation area:

Maximum R-value attainable	8.5
Existing R-value	6.9
Habitat Unit gain/acre	1.6
Acres	2
Total Habitat Unit gain for area	3.2

List Soil Type(s): Tuttle channery silty clay loam (Tz)

Give brief description of area: Area is located below the proposed earthen dam of site #154. Area is currently subjected to low-intensity livestock grazing. No fence is planned for livestock exclusion of this area. Area will continue to be seasonally grazed as part of the mitigation plan.

Operational Conditions - the following conditions will be incorporated into the mitigation plan:

Riparian Woodlands:

- A.** Removal of native deciduous trees or understory vegetation through manual or chemical means is prohibited. However, limited harvest of hardwoods may be allowed by submitting a plan for selective harvest that is reviewed by state resource agencies and approved by the US Army Corps of Engineers.
- B.** Invasive tree species such as Honey Locust, Osage Orange, Russian Olive, and Eastern Red Cedar must be controlled so that no more than 10% of the total species diversity is composed of these species, or other vegetative types determined as 'nuisance' or 'invasive' by appropriate resource agencies.
- C.** Mineral and fossil fuel exploration is prohibited unless a plan is reviewed and approved by the US Army Corps of Engineers.
- D.** Seasonal livestock will be permitted in the mitigation area according to the Grazing Management Plan outlined in the Landuse Management Section of the mitigation plan.
- E.** The area may be susceptible to fire from prescribed burning in adjoining pasture.
- F.** Creation of microhabitats (exposure of canopy through girdle/felling timber) may occur. In no case will enhancement activities reduce the canopy for the mitigation area less than 25%.
- G.** Any consumptive or non-consumptive use of wildlife pursuant to applicable state and federal laws will be allowed.
- H.** Private vehicle passage will be allowed to the landowner if necessary.
- I.** The area will be identified by installing fencing posts placed approximately every 300 feet along the western edge of the mitigation woodlands from below the dam northeastwardly towards existing fence along the west side of the county road located east of the mitigation area. Posts will be painted purple for identification purposes.
- J.** No revisions of this mitigation plan can occur without approval by the US Army Corps of Engineers, Kansas State Regulatory Office.

The following mitigation site identified as Area # 2

LEGAL DESCRIPTION:

Project located on approximately 12.1 acres in NW/4 of SW/4 of NW/4 Section 10
Township 13s Range 9e County: Wabaunsee

if other coordinates are used please provide:

N/A

See attached maps identifying the boundaries of the AREA #2.

Habitat type: Riparian Woodland Habitat Units gained: 12.7

Habitat Units will be gained through (check one):

Protection of existing timber X Timber establishment

Characteristics of mitigation area:

Maximum R-value attainable	10
Existing R-value	5.3
Habitat Unit gain/acre	4.7
Acres	2.7
Total Habitat Unit gain for area	12.7

List Soil Type(s): Ivan Silt loam (Iv)

Give brief description of area: Site lies on the North bank of Mill creek. Land use to the north & west is hay meadow. Grazing is not occurring on the site at time of plan development. Fencing would be incorporated in Area #3 to exclude livestock from entering Area #2 from rangeland across Mill Cr. Landowner has indicated he may include tree plantings NE of Area #2 in the future, but not as part of this plan.

Operational Conditions - the following conditions will be incorporated into the mitigation plan:

Riparian Woodlands:

- A. Removal of native deciduous trees or understory vegetation through manual or chemical means is prohibited. However, limited harvest of hardwoods may be allowed by submitting a plan for selective harvest that is reviewed by state resource agencies and approved by the US Army Corps of Engineers.
- B. Invasive tree species such as Honey Locust, Osage Orange, Russian Olive, and Eastern Red Cedar must be controlled so that no more than 10% of the total species diversity is composed of these species, or other vegetative types determined as 'nuisance' or 'invasive' by appropriate resource agencies.
- C. Mineral and fossil fuel exploration is prohibited unless a plan is reviewed and approved by the US Army Corps of Engineers.
- D. If the adjacent land use changes in the future, fencing will be installed to protect the mitigation area from livestock access.
- E. Creation of microhabitats (exposure of canopy through girdle/felling timber) may occur. In no case will enhancement activities reduce the canopy for the mitigation area less than 25%.
- F. Any consumptive or non-consumptive use of wildlife pursuant to applicable state and federal laws will be allowed.
- G. Private vehicle passage will be allowed to the landowner if necessary.
- H. Actions negatively impacting the bed, banks or water quality in Mill Creek are not allowed.
- I. No revisions of this mitigation plan can occur without review and approval by the US Army Corps of Engineers, Kansas State Regulatory Office.

The following mitigation site identified as Area # 3

LEGAL DESCRIPTION:

Project located on approximately 4.9 acres in NW/4 of SW/4 of NW/4 Section 10
Township 13s Range 9e County: Wabaunsee

if other coordinates are used please provide:

N/A

See attached maps identifying the boundaries of the AREA #3.

Habitat type: Riparian Woodland **Habitat Units gained: 4.9**

Habitat Units will be gained through (check one):

Protection of existing timber X Timber establishment _____

Characteristics of mitigation area:

Maximum R-value attainable	10
Existing R-value	5.3
Habitat Unit gain/acre	4.7
Acres	4.9
Total Habitat Unit gain for area	23

List Soil Type(s): Ivan Silt loam (Iv) & Tuttle channery silty clay loam

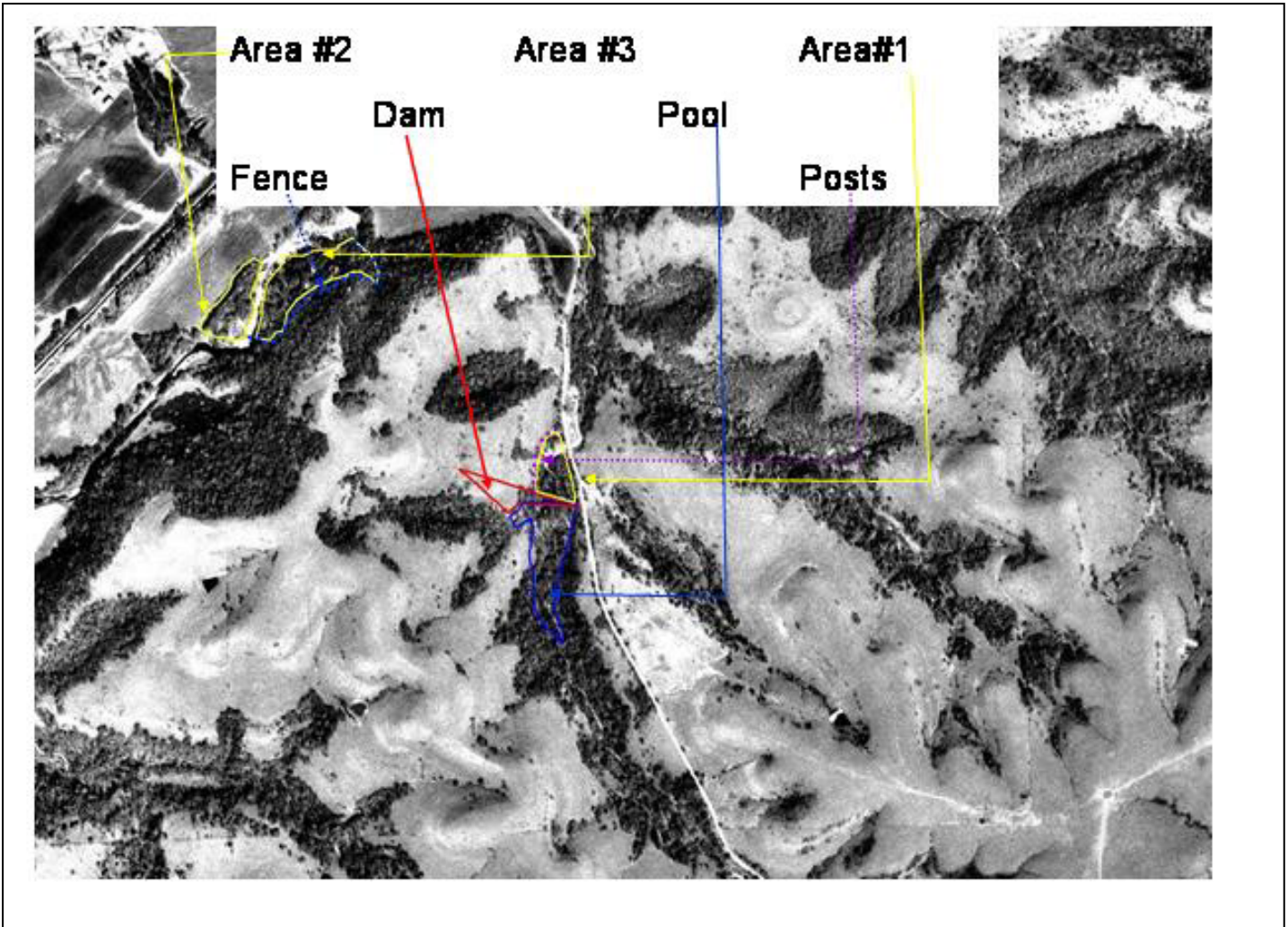
Give brief description of area: Site lies on the South bank of Mill creek. Land use to the south is low-intensity livestock grazing on native rangeland. Fencing would be incorporated along a break in the hilltop slope on the south side of Mill creek at approximate elevation of 1220 to exclude livestock from entering Area #3.

Operational Conditions - the following conditions will be incorporated into the mitigation plan:

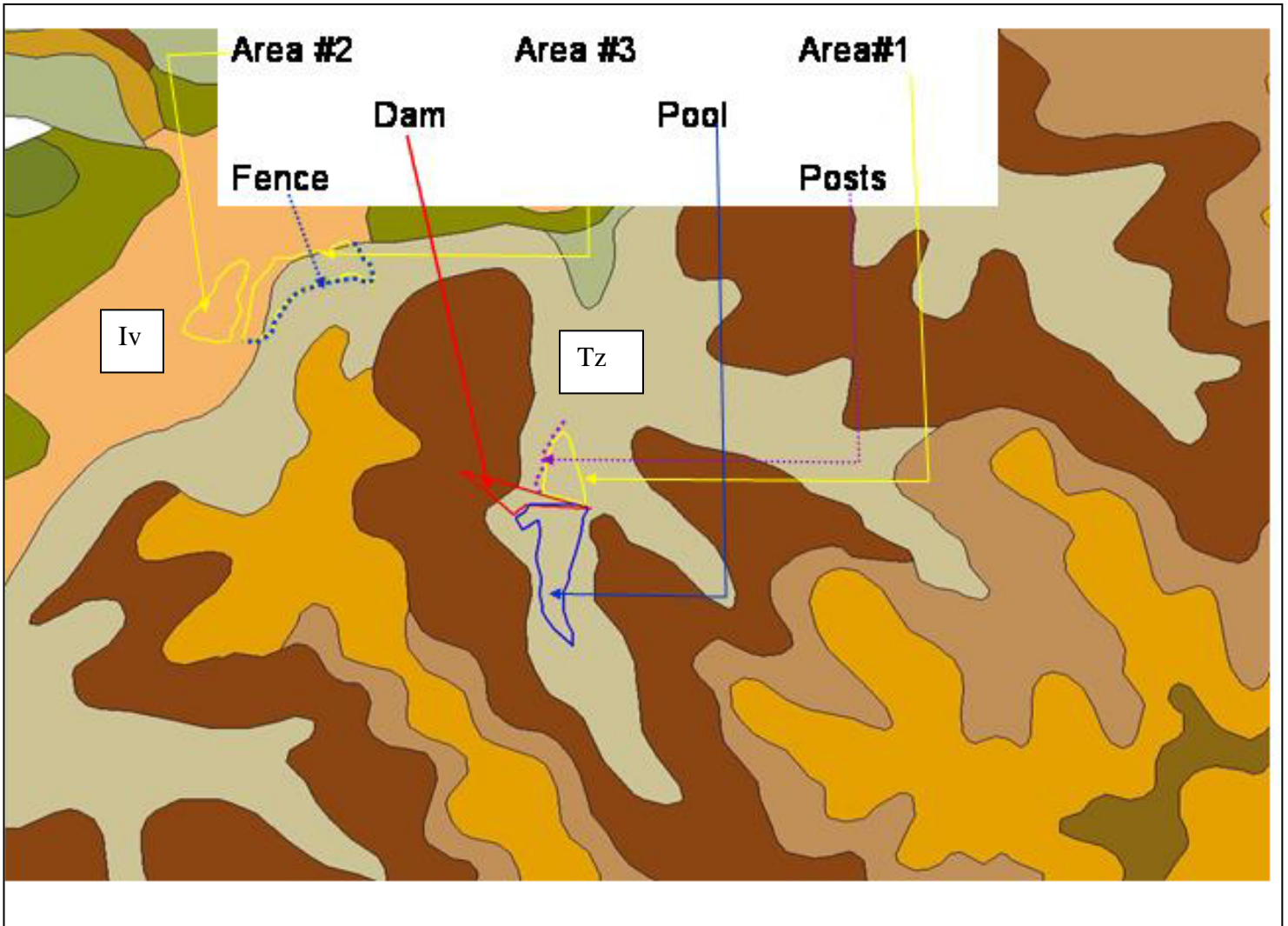
Riparian Woodlands:

- A.** Removal of native deciduous trees or understory vegetation through manual or chemical means is prohibited. However, limited harvest of hardwoods may be allowed by submitting a plan for selective harvest that is reviewed by state resource agencies and approved by the US Army Corps of Engineers.
- B.** Invasive tree species such as Honey Locust, Osage Orange, Russian Olive, and Eastern Red Cedar must be controlled so that no more than 10% of the total species diversity is composed of these species, or other vegetative types determined as 'nuisance' or 'invasive' by appropriate resource agencies.
- C.** Mineral and fossil fuel exploration is prohibited unless a plan is reviewed and approved by the US Army Corps of Engineers.
- D.** Fence will be constructed and maintained to exclude livestock access to the area.
- E.** Creation of microhabitats (exposure of canopy through girdle/felling timber) may occur. In no case will enhancement activities reduce the canopy for the mitigation area less than 25%.
- F.** Any consumptive or non-consumptive use of wildlife pursuant to applicable state and federal laws will be allowed.
- G.** Private vehicle passage will be allowed to the landowner if necessary.
- H.** Actions negatively impacting the bed, banks or water quality in Mill Creek are not allowed.
- I.** No revisions of this mitigation plan can occur without review and approval by the US Army Corps of Engineers, Kansas State Regulatory Office.

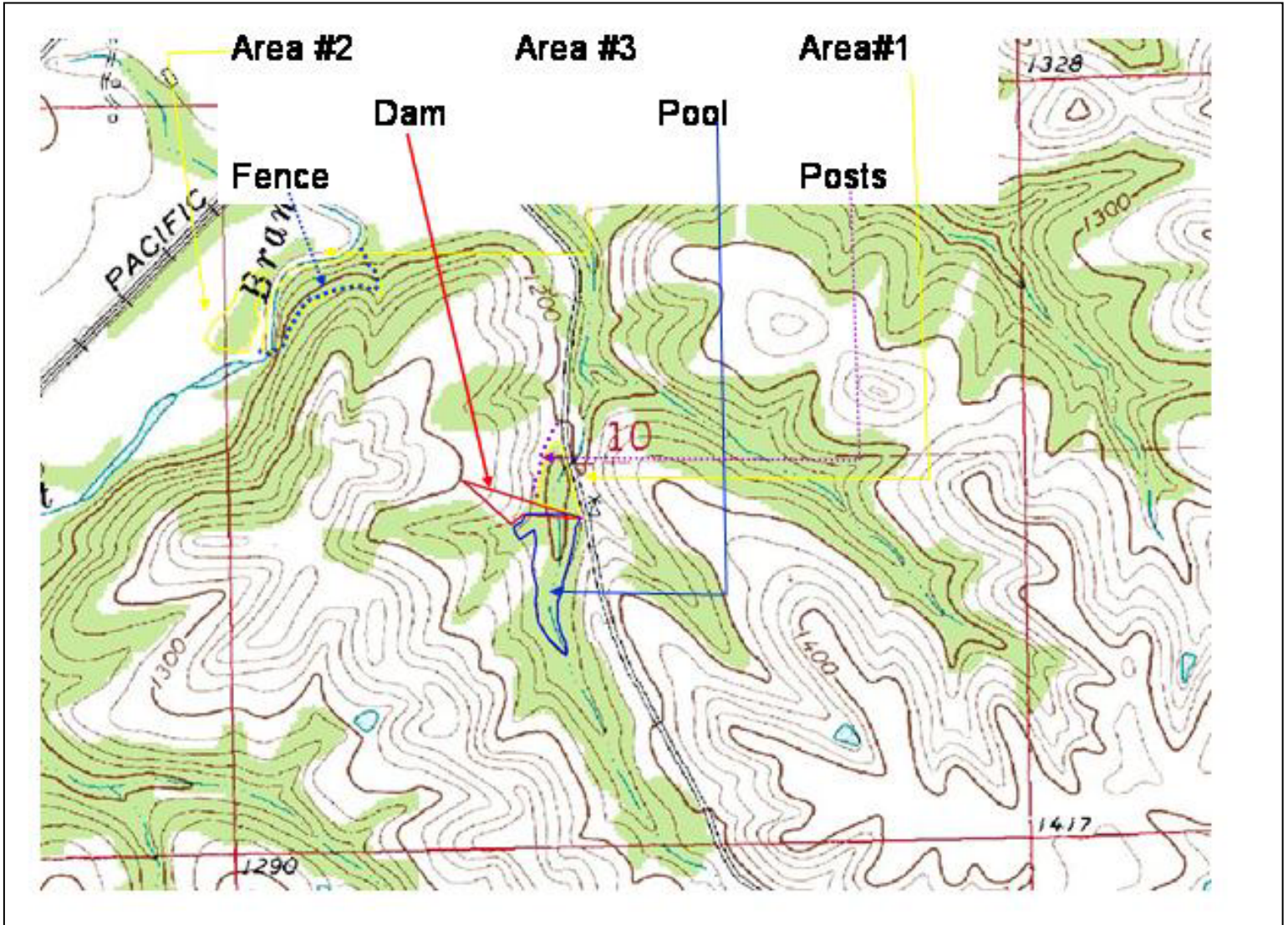
Aerial photograph



Soil map



Topo map



LAND USE MANAGEMENT ACTIVITIES

AREA NO. 1,2,3

Describe any pertinent land use management plans that will be implemented as part of the mitigation plan. Examples include: Timber Stand Improvement (TSI) plans, Timber Harvest plans, Grazing Management Plans, Prescribed Burning Plans, Water Level Management plans, noxious weed control or herbicide use. In addition, any cost-share or subsidy programs the AREA will be enrolled in should be listed.

1. Selective Harvest Plan: The landowner may participate in a selective harvest program within all three mitigation areas if desired. Harvest will be required to be compliant within the guidelines of a Forest Stewardship Program, or equivalent, developed in coordination with the Kansas Forest Service. The GRANTEE (Mill Cr. WJD #85) must be notified by the GRANTOR (landowner) or future landowner/tenant if this action occurs. Minimum 50' buffers landward from each bank of Mill Creek will be excluded from harvest in order to insure impacts to the stream do not occur.

2. Grazing Management Plan: Low –intensity livestock grazing may be allowed in mitigation area #1; however, no wintering stocks are allowable. Stock densities are attached in NRCS Conservation Practice Standard 528 form B (KS-ECS-528B). Grazing will follow guidance set forth in NRCS CPS 528 (Prescribed Grazing). Both mitigation areas #1 & 3 occur adjacent to Field #1 as described in form 528B, however Area #3 will be excluded by permanent fence. If grazing practices are determined to be a significant liability to the wildlife value of the mitigation area over time, exclusion may be required. This determination will be made by review of Status Reports and periodic site visits by the Corps of Engineers.

Watershed District: Mill Creek #85 Site No. 154

Legal Desc.: _____

Technical Service Provider

Layout by Date

Designed by Date

Checked by Date

Approved by Date

Producer's Statement

The design of the practice has been discussed with me, and I concur with the design. **No substitutions are allowed without the approval of the technical service provider.**

Signature Date

Certification

This applied practice meets Kansas standards and specifications.

Technical Service Provider Date

This practice has been applied as designed.

Producer Date

TECHNICAL SUPPORT

AREA NO. 1, 2,3

Provide a list of agencies or public/private entities that assisted in the development of this mitigation plan. Provide additional pages if necessary.

Organization: Kansas Department of Wildlife & Parks/National Resource Conservation Service
Name: Mike McFadden
Job Title: Wildlife Biologist
Telephone: 785-672-5721
Email: michael.mcfadden@ks.nrcs.usda.gov
Address: 3231 SW Van Buren, Ste 2, Topeka, KS 66611

Organization: KS. Dept. Wildlife & Parks, Environmental Services Section
Name: Nate Davis
Job Title: Aquatic Ecologist
Telephone: 620-672-5911
Email: nated@wp.state.ks.us
Address: 512 SE 25 th Ave, Pratt, KS 67124

Watershed District: Mill Creek #85 Site No. 154

MITIGATION PLAN STATUS REPORT

DATE: _____

Watershed District: _____ Site: _____

Evaluator's Name: _____

Organization: _____

Contact Information: _____

Identify the AREA listed in the mitigation plan or provide an applicable legal description or narrative location of the site:: _____

Current Landowner, Land manager, or tenant: _____

Evaluate the applicable components of the mitigation plan. Describe whether the conditions are adequate and note any potential problems or deficiencies.

1. Identification of the perimeter of the mitigation AREA (describe condition of fencing, signage, etc.). Is the perimeter consistent with the plan? Note localities that need maintenance.

2. Status of livestock exclusion.

3. Implementation of any Land Management Activities:

4. Status of Timber Establishment Plan:

A. Was the implementation continuous with the Plan? Yes _____ No _____

B. Describe the health and condition of the plantings:

C. Percent survivorship of plantings (note percent of supplemental plants through natural germination if applicable):

D. Density of trees & shrubs in AREAS planned for natural succession:

E. Success and vigor of trees & shrubs is limited by (note negative effects of fire, grazing (domestic or wild herbivores), desiccation, competition from weeds (note failure of weed prevention if appropriate), insect or disease, natural disaster (hail, wind, tornado, etc.), failure of seed dispersal or germination, other:

F. Identify strategies to improve survivorship:

G. Are invasive species affecting the area? If yes, describe and provide mngt. options:

H. Should the contingency plan be implemented? Yes _____ No _____
Describe:

5. Other Comments:

