APPENDIX C

FISH AND WILDLIFE

COORDINATION ACT REPORT

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Kansas Field Office

315 Houston Street, Suite E

Manhattan, Kansas 66502-6172

December 12, 2003

Mr. Larry D. Hogue
Chief, Planning, Environmental and Regulatory Division
U.S. Army Corps of Engineers- Tulsa District
Attn: CESWT-PE-E (Sturdy)
1645 South 101st East Ave.
Tulsa, Oklahoma 74128-4609

Dear Mr. Hogue:

This final Fish and Wildlife Coordination Act Report (report) for the Cowskin Creek Local Flood Protection Project (205 Study) identifies the major cover types within the project area, their relative wildlife value, Resource Category designation, and corresponding Mitigation Planning Goal. Your agency and the city of Wichita have indicated this kind of information would be useful in project planning and in avoiding environmentally sensitive areas during project development. The information contained in this letter is subject to revision and is prepared at a level of detail that is consistent with the rest of project planning. As project development continues it may be necessary to apply more sophisticated habitat evaluation techniques to accurately determine baseline conditions and projected impacts if compensitory mitigation ratios are not utilized. It is anticipated, however, that resource category designation and mitigation planning goals will not change significantly from what is contained in this report.

This report was prepared in accordance with provisions of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.) and will constitute the report of the Secretary of the Interior on the project within the meaning of section 2 (b) of this act in its final form. This report is provided pursuant to the fiscal year 2003 Scope-of-Work Agreement between the U.S. Fish and Wildlife Service (Service) and the Tulsa District, Corps of Engineers (Corps).

Classification of the major cover types within the Cowskin Creek project area is based on the Standards for the Development of Habitat Suitability Index Models, 103 ESM, U.S. Fish and Wildlife Service. The cover types in the Kellog to Maple streets project area, along with clarifying definitions where needed, are as follows:

(1) Riparian - This cover type consists of trees and shrubs adjacent to stream and riverine areas.

(2) Riverine - This cover type includes all wetlands and deep water habitats contained within a channel. It includes both intermittent and permanent streams.

(3) Wetland - Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification, wetlands must have one or more of the following attributes: (1) at least periodically the land supports predominantly hydrophytes; (2) the substrate is predominantly undrained hydric soil; and, (3) the substrate is nonsoil and is saturated with water or covered by water at some time during the growing season of each year. From: Cowerdine, L. M., et al. 1979. Classification of wetlands and deep water habitats of the United States. U.S. Fish and Wildlife Service. FWS/OBS - 79/31.

The U.S. Fish and Wildlife Service's Mitigation Policy (Federal Register Vol. 46, No. 15, Pages 7644-7663; January 23, 1981) is used by the Service in the evaluation of impacts to land and water developments and in the subsequent recommendations to mitigate adverse impacts. The Policy establishes four Resource Categories, Designation Criteria, and Mitigation Planning Goals for the cover types that the Service anticipates will be impacted by development of a project. These are presented below:

Resource Category	Designation Criteria	Mitigation Planning Goal
1	High value for evaluation* species and unique and irreplaceable.	No loss of existing habitat value
2	High value for evaluation species and scarce or becoming scarce.	No net loss of in-Kind habitat value
3	High to medium value for Evaluation species and abundant.	No net loss of habitat value while Minimizing loss Of in-kind Habitat value.

4	Medium to low value for evaluation species.	Minimize loss of Habitat value.

* Fish and wild life species that are representative of the cover types occurring in the project area. They are to be selected by a team consisting of the Fish and Wildlife Service, the Kansas Department of Wildlife and Parks, and the Corps of Engineers, and reflect the projected habitat changes, both positive and negative that result from project development.

Using the Designation Criteria, the cover types in the Cowskin Creek project area would fall into the following Resource Categories.

	RESOURCE CATEGORY			
	1	2	3	4
Riparian		X		
Riverine		X		
Wetland		X		

In applying the mitigation planning goals, the mitigation policy directs that the following guidelines be followed:

Resource Category 1

The Service will recommend that the losses of existing habitat be prevented as these one-of-a-kind areas cannot be replaced. Insignificant changes that do not result in adverse impacts on habitat value may be acceptable provided they will have no significant cumulative impact.

Resource Category 2

The Service will recommend ways to avoid or minimize losses. If losses are likely to occur, then the Service will recommend ways to immediately rectify them or reduce or eliminate them over time. If losses remain likely to occur, then the Service will recommend that those losses be compensated by replacement of the same kind of habitat value so that the total loss of such in-kind habitat value will be eliminated.

Specific ways to achieve this planning goal include (1 physical modification of replacement habitat to convert it to the same type lost; (2) restoration or rehabilitation of previously altered habitat; (3) increased management of similar replacement habitat so that the in-kind value of lost habitat is replaced; or,(4) a combination of these measures. By replacing habitat value losses with similar habitat values, populations of species associated with that habitat may

remain relatively stable over in the area over time. This is generally referred to as in-kind replacement.

Resource Category 3

The Service will recommend ways to avoid or minimize losses. If losses are likely to occur, then the Service will recommend ways to immediately rectify them or reduce or eliminate them over time. If losses remain likely to occur, then the Service will recommend that those losses be compensated by replacement of habitat value so that the total loss of habitat value will be eliminated.

It is preferable, in most cases, to recommend ways to replace such habitat value losses in-kind. However, if the Service determines that in-kind replacement is not desirable or possible, then other specific ways to achieve this planning goal include (1) substituting different kinds of habitats, or (2) increasing management of different replacement habitats so that the value of the lost habitat is replaced. By replacing habitat value losses with different habitats or increasing management of different habitats, populations of species will be different, depending on the ecological attributes of the replacement habitat. This will result in no net loss of total habitat value but may result in significant differences in fish and wildlife populations. This is generally referred to as out-of-kind replacement.

Resource Category 4

The Service will recommend ways to avoid or minimize losses. If losses are likely to occur, then the Service will recommend ways to immediately rectify them or reduce or eliminate them over time. If losses remain likely to occur, then the Service may make a recommendation for compensation, depending on the significance of the potential loss.

However, because these areas possess relatively low habitat values, they will likely exhibit the greatest potential for significant habitat value improvements. Service personnel will fully investigate these areas' potential for improvement, since they could be used to mitigate Resource Category 2 and 3 losses.

Project Description

Within the Cowskin Creek project area the greatest negative impact associated with flood control alternatives is the clearing of riparian woodlands, potential for flooding riparian woodlands downstream, filling of existing wetlands and alteration of existing riverine habitat. We understand preliminary plans for a project to protect development along Cowskin Creek would entail providing added channel capacity within the city by reshaping the existing east bank of Cowskin Creek to provide added overflow channel capacity from Kellogg to Maple Streets. Reshaping the stream channel from Kellogg and Maple Streets, a distance of approximately 3,800 feet, to a uniform 300 foot bottom width and 3 to 1 side slopes (east bank of the channel) would eliminate the thin belt of riparian habitat remaining within this

residential/agricultural area. Of the 38 acres to be affected 24 acres are cropland, 7 acres are riparian timber, 5 acres of mixed grass/open savannah and 1.5 acres are wetland.

There are three distinct habitat losses which would warrant mitigation. One is the loss of riparian woodland bordering on Cowskin Creek. With the proposed channel improvement none of the existing riparian area on the east bank of the stream would remain after project completion. This habitat loss should be replaced by purchase or easement of a suitable amount of similar habitat that would be managed to maximize its potential to offset losses or by purchase and conversion of agricultural land in the immediate vicinity to woodland.

In addition to riparian area losses there is a small wetland (water tolerant grasses and smartweed present on 1 to 1.5 acres) in and abutting Cowskin Creek within the southeastern area to be reshaped.

A wetland determination will be necessary to determine how many acres would be filled by the proposed channel re-alignment. The quantity and quality of existing wetland will determine the amount of compensation necessary to offset project losses. A wetland mitigation plan would be developed in coordination with at least the Corps, Service, EPA, and the Kansas Department of Wildlife and Parks. This plan would include site locations, time frames, construction plans, a monitoring plan, progress reports, and standards of success. This plan would be a condition of any Section 404 permit issued for the project. The plan should be implemented regardless of the regulatory nature of the wetland.

Compensatory Mitigation

Advance creation	1.5:1	Forested
	1:1	Emergent wetland
Concurrent creation	2:1	Forested
	1.5:1	Emergent wetland
Advanced restoration	1.5:1	Forested
	1:1	Emergent wetland
Concurrent restoration	2:1	Forested
	1.5:1	Emergent wetland
Advanced enhancement	3:1	Forested
	2:1	Emergent wetland
Concurrent enhancement	4:1	Forested
	3:1	Emergent wetland
Preservation	5:1	Forested

Total re-channelization of 3,800 feet of Cowskin Creek is no longer a project feature. The present project calls for working with only the east bank of the stream leaving habitat on the opposite bank. The natural stream channel will not be filled and existing riparian habitat on the

west bank will be retained. Riparian habitat on the east bank should be retained wherever possible.

Endangered and Threatened Species

Due to the urban and residential nature of the immediate project area Ferderaly listed or proposed species will not be adversely affected by project implementation.

One species of note from the project area is the Eastern Spotted Skunk (Spilobale putorius interrupta). This species is listed as threatened by the state and is protected by the Kansas Nongame and Endangered Species Conservation Act and it's administrative regulations. Currently, Cowskin Creek within Sedgwick County is designated as critical habitat for the Eastern Spotted Skunk. A determination of whether the riparian habitat within the project area is suitable for the Eastern Spotted Skunk will have to be made by the Kansas Department of Wildlife and Parks.

Kansas State Law (K.S.A. 32-504, 32-507: effective May 1, 1981) require persons undertaking or sponsoring publicly funded or State or Federally assisted action which is likely to impact endangered or threatened wildlife habitats where they are likely to occur, to obtain a project action permit from the Secretary of the Kansas Department of Wildlife and Parks prior to initiation of such action. In addition to the Federally listed threatened and endangered species, the State lists additional species that may be of concern within the project area. This list should be requested from the Division of Environmental Services, Kansas Department of Wildlife and Parks, Rt. 2, Box 54A, Pratt, KS 67124-9599.

Recommendations

In the interest of protecting the fish and wildlife resources of Cowskin Creek and adjacent lands between Kellogg and Maple Streets, Kansas it is recommended that:

1. Clearing of one bank only is less damaging than total channelization of this reach however 7 acres of riparian timber will be eliminated by the project. Mitigation planning goals and compensatory mitigation (concurrent mitigation 2:1 ratio for forested areas) indicate native tree species should be planted in a 160 foot wide buffer (approximately 14 acres) immediately adjacent to the altered reach.

2. Wetland determinations should be conducted for all hydric soil types and soil types with hydric inclusions within the project area. Mitigation planning goals and compensatory mitigation (concurrent mitigation) indicate 1.5 acres of wetland should be created for every acre lost. Preliminary indications are that 2.3 acres of wetland should be reestablished within the floodway.

3. A conservation easement should be provided on the 38.8 acres of restored wetland, riparian habitat and prairie grassland (grassed waterway) that will be planted and maintained for the life of the project by project sponsors.

4. If the mitigation ratios are not acceptable, terrestrial and aquatic habitat within the project area should be evaluated by a team of biologists from the U.S. Fish and Wildlife Service, the Kansas Department of Wildlife and Parks and the U.S. Army, Corps of Engineers by applying the Habitat Evaluation Procedures (HEP) or the Fish and Wildlife Habitat Analysis Procedures developed by the Kansas Department of Wildlife and Parks.

Fish and wildlife habitat losses attributable to preferred project alternative, preliminary mitigation areas and costs associated with these recommendations have been developed by the City of Wichita and reviewed by the Service and the Kansas Department of Wildlife and Parks. The plan outlined on the map submitted by MKEC October 29, 2003 (Figure 1.) depicting the outline of mitigation areas and acreage is acceptable to the agencies. The Service and the Department will continue to cooperate with the city of Wichita and the Corps to refine and finalize preliminary mitigation plans.

Please continue to keep us informed concerning the status of this study as it develops. Comments on this final Fish and Wildlife Coordination Act Report are welcomed.

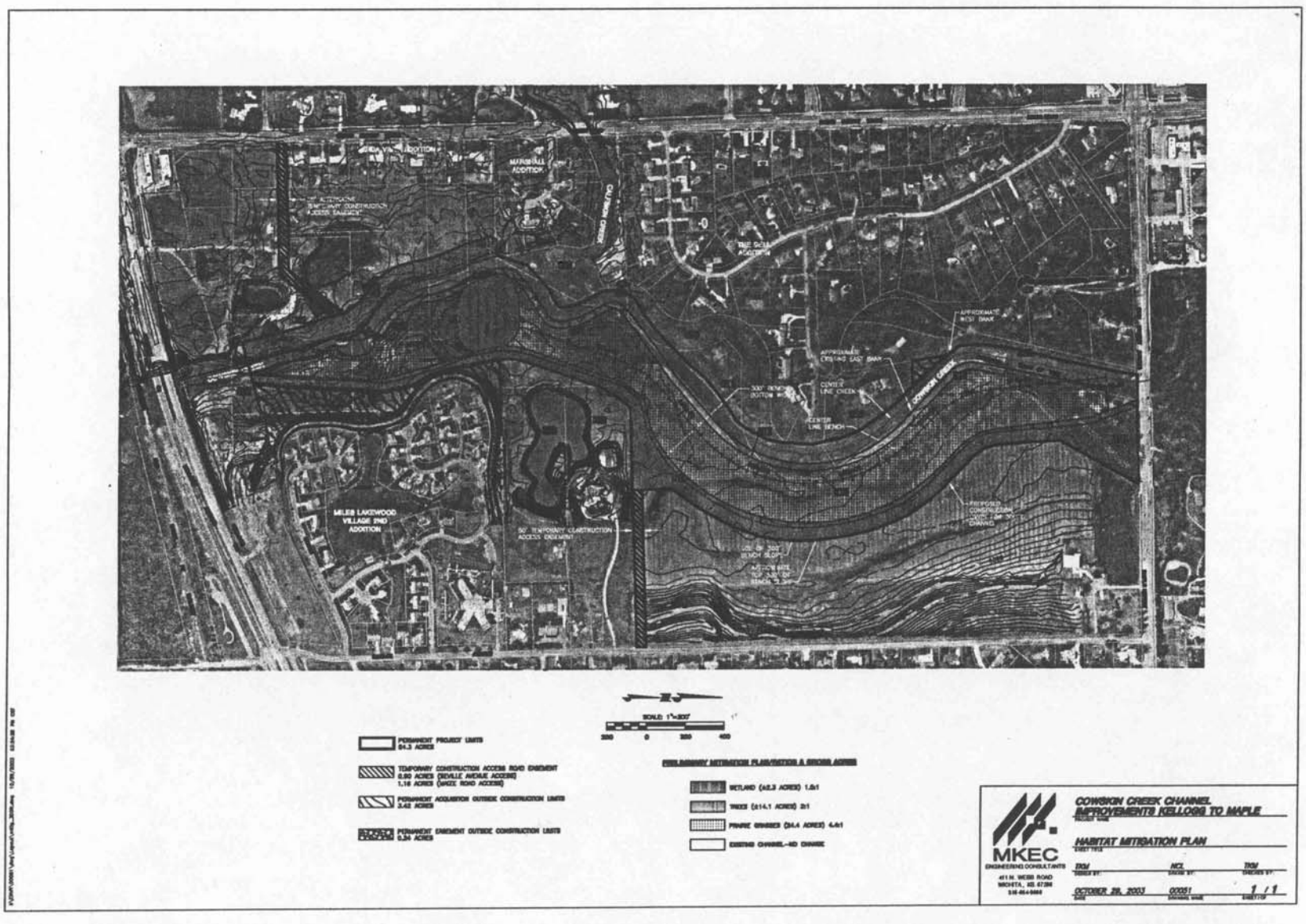
Sincerely,

William H. Gill

William H. Gill
Field Supervisor

cc: FWS/ES, Denver,CO. (Fed. Act.)
KDW&P, Pratt, KS (Environmental Services)
KDW&P, Valley Center, (Region 4 Office)

WHG/drc/



MKEC
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WICHITA, KS. 67206
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COWSKIN CREEK CHANNEL IMPROVEMENTS KELLOGG TO MAPLE

HABITAT MITIGATION PLAN

TRH	NCL	TRH
DESIGNED BY:	DRAWN BY:	CHECKED BY:
OCTOBER 29, 2003	00051	1 / 1
DATE	DRAWING NAME	SHEET NO

Figure 1.