

10.0 THE SELECTED REMEDY

The selected remedy for OU 13 includes two remedial alternatives; Removal - Disposal and No Action. No further action is necessary for much of OU 13 because there is no unacceptable risk to human health or the environment.

Removal - Disposal is the selected remedy for areas within OU 13 that exceed remediation goals. These areas have been identified to include:

- FLDD
- FLDD Wetland
- EBGB (from Pennsylvania Road to the Ski Chalet)
- NDA Drainageways (north and south)
- Ditch G06
- UTS Wetland (northern portion)

The State Fish Advisory, currently in effect, will continue to be enforced until the fish are determined to be acceptable for consumption. Areas covered by the advisory include Chapman Pit, Green Pond, Greenlaw Brook, and the LMR and its tributaries from the Madawaska Dam Reservoir south to the Aroostook River.

The No Action alternative has been selected for the LMR because there is no unacceptable risk associated with surface soil, sediment, and surface water. The No Action alternative will include an environmental monitoring program and five-year site reviews to assess whether human health and the environment continue to be adequately protected.

No further action is necessary at the other areas within OU 13 because there is no unacceptable risk to human health or the environment.

10.1 REMEDIATION GOALS

The USAF has established, with concurrence of the regulatory agencies, site-specific remediation goals (RGs) that will be protective of human health and the environment. RGs were established based on USEPA Risk Assessment Guidance for Superfund (USEPA, 1991), LAFB Risk Assessment Methodology (HAZWRAP,1994), and MEDEP Risk Assessment Guidance (MEDEP, 1994). RGs

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and the compounds for which they have been established are listed in Tables 10-1 through 10-7.

10.2 DESCRIPTION OF REMEDIAL COMPONENTS

The following subsections describe the Removal - Disposal and No Action alternatives developed by the USAF for OU 13.

10.2.1 Removal - Disposal

The following paragraphs describe the Removal - Disposal alternative the USAF developed for areas that exceed remediation goals. These areas have been identified to include the FLDD, FLDD Wetland, EBGB (from Pennsylvania Road to the Ski Chalet), north and south NDA Drainageways, Ditch G06, and UTS Wetland (northern portion). Implementation of the selected alternative will include the following activities:

- pre-design studies to delineate the extent of remediation for design purposes;
- pre-design wetland mitigation studies (i.e., wetland delineations and function-value assessments) to evaluate the impacts resulting from remedial activities;
- site preparation and mobilization;
- cutting and clearing;
- stormwater management;
- sediment excavation;
- sediment disposal at LF-3; some material may require disposal at off-base facilities;
- backfilling the excavations with material that closely matches the excavated material;

TABLE 10-5
FISH TISSUE REMEDIATION GOALS
EAST BRANCH GREENLAW BROOK, CHAPMAN PIT, GREEN POND, AND LITTLE MADAWASKA RIVER
OPERABLE UNIT 13 RECORD OF DECISION
LORING AIR FORCE BASE

CONTAMINANT OF CONCERN¹	MAXIMUM DETECTED CONCENTRATION² (mg/kg)	PROTECTION OF HUMAN HEALTH³ (mg/kg)	ACTION LEVEL⁴ (mg/kg)
4,4'-DDD	0.076	0.018	NA
4,4'-DDE	0.044	0.013	5 (Total DDT, DDE, and TDE)
4,4'-DDT	0.14	0.013	5 (Total DDT, DDE, and TDE)
Aroclor-1242	0.074	0.0022	NA
Aroclor-1260	2.1	0.0022	NA
Heptaclor	0.0031	0.00098	0.3
Chlordane, Alpha	0.042	0.0034	0.3 (Total Chlordane)
Chlordane, Gamma	0.014	0.0034	0.3 (Total Chlordane)

Notes:

- 1 Contaminants of concern identified in fish tissue at one or more of the affected areas.
 - 2 Maximum detected concentration out of all the affected areas.
 - 3 The lesser value of a carcinogenic risk-based concentration calculated with the target cancer risk set at 1×10^{-6} and a noncarcinogenic risk-based concentration with the hazard quotient set at 1. Development of human health risk-based concentrations is documented in Appendix A.1 of the OU 13 FS (ABB-ES, 1997a).
 - 4 Action Levels for Poisonous or Deleterious Substances in Human Food and Animal Feed (DHHS, 1992).
- mg/kg = milligrams per kilogram
DDE = dichlorodiphenyldichloroethylene
DDD = dichlorodipenyldichloroethane
DDT = dichlorodiphenyltrichloroethylene
NA = Not available

FINAL

Loring Air Force Base

**Operable Unit 13 (OU 13)
Record of Decision**

May 1997

Prepared for:

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Job No. 9975-16