protection are designed to withstand long-term erosive forces. Disturbed areas would be graded to promote drainage and would be revegetated when remedial actions are complete.

#### Ground Water

The proposed action would have a positive effect on ground water below the processing site by removing the source of contaminants. No impacts are expected to ground water below the disposal cell. The disposal cell at the Burro Canyon site is designed to control radioactive and nonradioactive contaminants in compliance with the EPA's proposed ground water protection standards. The protection of human health and the environment at the Burro Canyon disposal site would be ensured by a combination of design features and advantageous hydrogeologic conditions. There is no existing or potential use of ground water in the uppermost aquifer in the immediate vicinity of the Burro Canyon site because sustainable amounts of ground water are not available from the aquifer. The cleanup and/or control of existing ground water contamination at the Union Carbide and North Continent processing sites will be evaluated during the ground water compliance phase of the UMTRA Project.

### Flora and Fauna

Flora and fauna would be affected directly and indirectly by the proposed remedial action. Direct effects would include the loss of habitat, loss of lessmobile wildlife species, and displacement of other wildlife species. Indirect effects would arise from increased fugitive dust, noise levels, and human activity. The duration of the direct effects would depend on the restoration of disturbed areas. Indirect effects would continue for the duration of the remedial action or less.

Mitigative measures to protect bighorn sheep that could be killed accidentally by haul trucks would be speed limits and driver education. Removal of water from the Dolores River would be limited to amounts that would be protective of fish and wildlife that require an adequate flow in the river.

# Mineral Resources and Soils

No impacts to mineral resources would occur. Temporary impacts to soils would occur during the proposed action. Disturbed soils would undergo restoration after remedial activities are complete. Topsoils would be excavated, stored, and then replaced during restoration. A loss of mining claims on the proposed Burro Canyon disposal site would occur. The DOE would

compensate valid claim holders to the extent required by law.

## Threatened and Endangered Species

Impacts to fish and their critical habitat would occur as a result of the proposed action. The use of water from the Dolores River for remedial action would cause a net depletion of approximately 150 acre-feet of water in the upper Colorado River basin. This has resulted in a "may affect" determination for the endangered Colorado squawfish, humpback chub, bonytail chub, and razorback sucker and their critical habitat. These determinations required formal consultation with the FWS, which resulted in the identification of mitigation consisting of a one-time payment of \$11.98 per acre-foot of water based on an average annual use. The funds would be used to improve conditions for endangered fish species.

The southwestern willow flycatcher has been proposed as threatened and endangered. This bird species was not present in the area of the Slick Rock processing sites in 1990, 1991, and 1994, but potential habitat for this species does occur at the sites. A survey for this species would be conducted prior to the remedial action. If it is determined that the southwestern willow flycatcher nests at or near areas that may be disturbed by the remedial action, formal consultations with the FWS would be initiated and a mitigation plan would be prepared. Similarly, surveys were conducted at the proposed disposal site for blackfooted ferrets; none were found.

### Floodplains and Wetlands

During the proposed remedial action at the Slick Rock processing sites, contaminated materials would be removed from the 100-year floodplain of the Dolores River. Approximately 28 and 13 acres would be disturbed within the 100-year floodplain at the Union Carbide and North Continent sites, respectively. After the remedial action, the disturbed areas would be backfilled with clean fill material to approximate the original 100-year floodplain. However, the man-made ground elevations of the tailings pile at the Union Carbide site would not be reestablished, which would increase the area of the 100-year floodplain at the site by approximately 7 acres. Remedial action at the North Continent site would not increase the size of the 100-year floodplain.

Flooding is not a hazard at the Burro Canyon disposal site. The site is above the 100-year floodplain of the Dolores River and is 60 feet higher in elevation

than the closest intermittent drainage area. Remedial action activities at the Dolores River borrow site probably would occur within the 100-year floodplain of the Dolores River. Upon completion of the remedial action, the disturbed area at the Dolores River borrow site would be restored, but the area of the 100-year floodplain at the borrow site would be slightly increased. Remedial action activities at the Disappointment Valley borrow site would not occur within a 100-year floodplain.

The proposed remedial action would disturb riparian plant communities along the Dolores River. Approximately 42 acres of riparian plant communities would be disturbed at the Union Carbide and North Continent processing sites. It was determined that 10 acres of these riparian plant communities meet the USACE definition of a wetland. These wetlands are regulated by the USACE through its Section 404 Permit process, and the DOE would mitigate remedial action impacts to wetlands as determined by this process. Approximately 17 acres of riparian plant communities across the Dolores River from the Union Carbide site are contaminated but are not proposed for cleanup during the remedial action by the application of supplemental standards. The application of supplemental standards to the other 42 acres of riparian plant communities at the Union Carbide and North Continent sites would not be feasible due to the relatively high levels of contamination in these areas.

The no action alternative would leave the contaminated materials in the floodplain and wetland areas of the Dolores River and continue to adversely impact the floodplains and wetlands by not controlling the source of contamination. The proposed action involves action within the floodplain and wetland areas. Based on the Floodplain/Wetlands Assessment, the DOE has determined that there is no practical alternative to the proposed activities in the floodplain and wetlands areas and that the proposed remedial action has been designed to minimize potential harm to or within the floodplain and wetland areas.

The Floodplain/Wetlands Assessment in the EA and this Floodplain Statement of Findings were prepared pursuant to Executive Orders 11988, Floodplain Management, and 11990, Protection of Wetlands, and 10 CFR Part 1022, Compliance With Floodplain/Wetlands Environmental Review Requirements. Mitigation measures to reduce impacts to floodplain disturbance would be to backfill disturbed areas with clean fill