BIOLOGY

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____ MONITOR: _____ DATE/APPROVAL	MILEPOSTS	COMMENTS
3.1.4.3 Vegetation Control If mechanical clearing of the ROW is required during operational phases, the following mitigation measures shall be used: Operators and workers shall receive environmental training. Activities shall be restricted to the immediate area to be cleared. Existing access roads to the ROW shall be used. A pre-clearing inspection of the area shall be conducted by a qualified biologist to identify/relocate and avoid any listed species of flora or fauna. Pets and firearms on the ROW shall be prohibited. All trash and litter shall be kept in containers and removed from the ROW daily. Refueling of equipment shall occur only in approved areas away from sensitive plants, sensitive wildlife habitat and perennial or ephemeral streams. Fire suppressants shall be carried on all mobile equipment and shielding catalytic converters.	Plans shall be submitted to SLC and other identified agencies.			

CALENDAR PAGE 559
MINUTE PAGE 954

BIOLOGY

COMPANY: _____ SPREAD: _____

MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
3.1.4.4 Rodenticides and Herbicides If rodenticide and/or herbicide use is required, the pipeline company shall contact the USFWS and CDFG for review and concurrence with the proposed activity. This may result in reinitiation of consultation prior to the use of rodenticide. When use is necessary and approved, each company shall follow restrictions set by the agencies, e.g., the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other state and federal legislation.	Plans shall be submitted to SLC and other identified agencies.			

CALENDAR PAGE 560
MINUTE PAGE 955

BIOLOGY

COMPANY: _____ SPREAD: _____

MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
3.1.4.5 Contingency Plans Each pipeline company shall prepare appropriate contingency plans and procedures prior to initiation of operations and present them to the Agencies for review. These plans shall outline procedures for contacting the Agencies under a variety of situations which may occur. The plans shall provide procedures for notification concerning emergencies related to pipeline leaks or ruptures and what will constitute an emergency; plans for protecting the biological resources during emergency operations; procedures for accomplishing routine maintenance; and plans for consultation with the Agencies for unforseen circumstances.	Plans shall be submitted to SLC and other identified agencies.			

CALENDAR PAGE 561
MINUTE PAGE 956

BIOLOGY

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____ MONITOR: _____ DATE/APPROVAL	MILEPOSTS	COMMENTS
3.2.2.3 Sensitive Plants: Mojave Desert Several candidate or otherwise sensitive plants have the potential to occur along the corridor as described in the Draft EIR Amendment. These include *Cymopterus deserticola*, *Penstemmon albomarginatus*, *Linanthus arenicola*, *Eriophyllum mohavense*, and *Mimulus mohavensis* for the Mojave Pipeline and *Arctomecon merriami*, *Castela emoryi*, *Coryphanta vivipara* var. *rosea*, *Linanthus arenicola*, *Spaerakea rusbyi* spp. *eremicola*, and *Stipa arida* for Kern River. Only *Spaerakea* and *Stipa* were found during the surveys along the Kern River route. Additionally, other sensitive annual species may be located during new springtime surveys if substantial rain occurs in the 1990-1991 winter season. The following measures shall be taken: Preconstruction surveys shall take place during the months of March to June to identify and flag all sensitive plant species at known occurrences and in potential habitat on the ROW and access points. These plants shall be avoided wherever feasible. Cactus, Joshua trees, and other perennial species that would be lost during construction shall, where feasible, be transplanted to adjacent locations or replaced on the ROW after completion of construction. The guidelines for the feasibility of any transportation of these plants and the location where they would be replanted shall be determined in consultation with the Agencies at least 30 days prior to initiation of construction. The [illegible] inches of top soil in all known habitat for sensitive annual species shall be removed by hand or small equipment. No reseeding in the immediate vicinity shall be [illegible].	Reviewed during normal biological monitoring inspections and will require botanical specialist in sensitive areas.			

BIOLOGY

COMPANY: _____ SPREAD: _____

MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
3.2.3.2 Sensitive Plants: Tehachapi Mountains There is a potential that several sensitive plant species may occur within this section of the Mojave pipeline as described in the Draft EIR amendment. The same procedures as described above under the Mojave Desert area shall be implemented in this region. These measures shall include preconstruction surveys, avoidance of populations where possible, retention and replacement of top soil, and transplantation of species where possible. Oaks encountered in the ROW with a trunk diameter greater than 24 inches at chest height shall be avoided where feasible. Construction in the vicinity of oaks in the Tehachapi Mountains shall occur outside of the dripline to the maximum extent possible to avoid impacts to the root systems.	Reviewed during normal biological monitoring inspections and will require botanical specialist in sensitive areas.			

CALENDAR PAGE 3563
MINUTE PAGE

BIOLOGY

COMPANY: _____ SPREAD: _____

MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
3.2.4.5 Sensitive Plant Species: San Joaquin Valley Preconstruction surveys shall be conducted at known occurrences and in potential habitat between April and the end of June to identify populations of candidate or state and/or federally listed plants. Populations shall be avoided through minor changes in pipeline alignments or restrictions in the width of the construction ROW. Potential habitat of plant species of concern include *Kd furcata*, *Atriplex vallicola*, *Caulanthus californicus*, *Cirsium crassicaule*, *Eremalche kernensis*, *Eriastrum hooveria*, *Eriogonum gossypinum*, and *Opuntia treleasei*. Only *Cirsium crassicaule* and *Opuntia treleasei* were found during the field investigations. Populations of federally threatened and endangered species include *Eremalche kernensis*, *Eriastrum hoover*, *Eriogonum gossypinum*, *Caulanthus californicus*, and *Opuntia treleasei*. If populations of these species are identified during the preconstruction surveys, the populations shall be avoided through minor changes in the pipeline alignment, restrictions in the width of the construction ROW or both. If avoidance is not possible, cactus and other succulents capable of transplantation should be transplanted to other locations or back on the ROW after completion of construction. The upper two inches of top soil shall be segregated by hand or small equipment and replaced after completion of construction. No reseeding shall be permitted in the vicinity of these areas.	Reviewed during normal biological monitoring inspections and will require botanical specialist in sensitive areas.			

BIOLOGY

COMPANY: _____ SPREAD: _____

MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
3.2.2.1 Desert Tortoise Populations of or potential habitat for desert tortoise were found along the Mojave Pipeline (MP 0 to MP 224) and Kern River Pipeline (MP 561 to MP 635). Mitigation requirements and procedures are outlined below for the species.	Reviewed during normal biological monitoring inspections.			

CALENDAR PAGE 565
MINUTE PAGE 960

BIOLOGY

COMPANY: _____ SPREAD: _____

MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
Personnel Qualifications All personnel handling desert tortoises shall approved by the U.S. Fish and Wildlife Service and the California Department of Fish and Game. Each monitor shall be permitted by the USFWS and the CDFG to handle tortoises. Additionally, each monitor shall undergo an agency managed training program in the handling of desert tortoises. A handbook shall also be developed and approved by the Agencies and distributed to each monitor detailing survey, monitoring, and handling requirements.	Qualifications of personnel must be submitted to SLC.			

CALENDAR PAGE 566
MINUTE PAGE 961

BIOLOGY

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____ MONITOR: _____ DATE/APPROVAL	MILEPOSTS	COMMENTS
<u>Timing of Construction</u> Based on current USFWS and CDFG opinion, construction of pipelines within fair to good quality tortoise habitat as defined by the desert tortoise survey maps submitted by Mojave and Kern River shall be conducted between March 15 and June 15 (spring activity period) when the tortoises are active and can be easily transported off-site. Areas required for this period of construction include: Mojave Pipeline (MPs 8.8-116.5, 140.9-194.[illegible], 204.1-211.9, and 220.3-225.0) Kern River Pipeline (MPs 541.7-547; 553-584.0; 595.0-634.0) Construction shall start in these areas no earlier than March 15 and each company shall submit to the responsible agencies a construction schedule and location of pipeline segments to accomplish the construction no later than February 15. If construction delays are encountered which will require construction in these areas beyond June 15, responsible agencies shall be notified at least by June 1 and [illegible] outlined below for collapsing of [illegible] and monitoring of the corridor shall be [illegible]. [illegible] of the pipeline within tortoise [illegible] be constructed when the tortoises are [illegible] following the set procedures provided in [illegible].	Reviewed during normal biological monitoring.			

567

962

BIOLOGY

COMPANY: _____ SPREAD: _____

MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
Preconstruction Surveys Rights-of-way shall be surveyed by qualified biologists within 48 hours before construction activities begin to ensure maximum avoidance of impacts to desert tortoise and their burrows. All desert tortoise burrows and potential burrows shall be flagged. Inactive burrows shall be plugged or collapsed. Two types of burrows shall receive special marking: active burrows and special resource burrows. The active and special resource burrows shall be mapped and presented to construction engineers to determine the feasibility of minor rerouting of the pipeline to avoid these burrows. All active burrows that cannot be avoided shall be recorded and desert tortoises that are encountered shall be moved.	Reviewed during normal biological monitoring inspections.			

CALENDAR PAGE 5568
MINUTE PAGE 905

BIOLOGY

COMPANY: _____ SPREAD: _____

MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
<u>Removal of Tortoises During Active Periods</u> Each desert tortoise that is encountered during clearing and construction activities shall be given an identifying number; have vital information recorded; and be permanently and uniquely marked. A 35mm slide shall be taken from directly above the animal to show a full view of the carapace after processing. All information shall be submitted to responsible agencies upon completion of clearing and again in the post-construction report. Researchers shall wear disposable gloves when handling each tortoise. These gloves shall be disposed of after each tortoise is handled. Any desert tortoise that voids its cloaca shall be hydrated by an Agency approved method. During pioneer clearing activities, desert tortoises encountered shall be processed, and moved 150 ft off the ROW and placed under a shrub in the shade. Desert tortoises that are encountered when the temperature exceeds 90°F shall be held overnight and released the following morning shortly after sunrise following established procedures. Desert tortoises encountered within two hours before sunset shall be held overnight in a cool location and kept by a designated monitor until the desert tortoise is released the following morning. If desert tortoises are encountered on the ROW during construction, each desert tortoise shall be processed, then moved 150 ft off the ROW in the direction of its travel and placed under a shrub in the shade. If appropriate shade cannot be found, the desert tortoise shall be held overnight and released as detailed above. Any desert tortoise encountered two hours before sunset shall be kept and released as detailed above. Desert tortoises that are found on the construction ROW more than three (3) times shall be penned in a temporary 10 ft by 10 ft enclosure around a burrow next to the ROW. Alternatively, the ROW may be fenced temporarily with tortoise proof fence.	Reviewed during normal biological monitoring inspections.			

BIOLOGY

COMPANY: _____ SPREAD: _____

MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
Procedures if Construction in High Quality Habitat Extends Beyond June 15. If construction will occur within high quality habitats past June 15, presurveys, hand excavation of burrows, and movement of tortoises prior to June 15 shall take place. These areas shall be monitored closely to assure that tortoises do not try to reestablish burrows prior to construction.	Reviewed during normal biological monitoring inspections.			

CALENDAR PAGE 570
MINUTE PAGE 965

BIOLOGY

COMPANY: _____ SPREAD: _____

MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
Removal of Tortoises During Inactive Periods Tortoises may be found in burrows which cannot be avoided, or may be found above-ground if there is a period of warm weather. Tortoises excavated from unavoidable burrows along the route shall be relocated to unoccupied natural or artificially constructed burrows immediately following excavation. The artificial or unoccupied natural burrows shall be constructed approximately 150-300 ft from the original burrow following established guidelines. Tortoises removed from occupied burrows and relocated to newly constructed burrows shall be handled using disposable surgical gloves.	Reviewed during normal biological monitoring inspections.			

CALENDAR PAGE 571
MINUTE PAGE 966

BIOLOGY

COMPANY: _____ SPREAD: _____

MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
<u>Monitoring and Tortoise Protection During Construction</u> Activities requiring a biological monitor shall include, but are not limited to: surveying, pioneer clearing, final clearing and grading, ditching, pipe stringing, pipe bending, welding, taping, backfilling of ditch, hydrostatic testing, tie-in, final cleanup, and revegetation and rehabilitation. If desert tortoises are encountered which require handling and/or removal from the construction ROW, only monitors which have been approved to handle tortoises shall be utilized.	Reviewed during normal biological monitoring inspections.			

CALENDAR PAGE 572
MINUTE PAGE 967

BIOLOGY

COMPANY: _____ SPREAD: _____

MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
3.2.2.2 Mohave Ground Squirrel Mohave ground squirrel habitat occurs along the Mojave pipeline alignment between MP 162 and 214. The following procedures shall be implemented within these areas: The alignment shall be surveyed where feasible between April 1 and May 15 to identify areas containing Mohave ground squirrels. Where possible the burrow areas shall be avoided by minor changes in alignment. Burrows within Mojave ground squirrel areas within the alignment shall be hand dug prior to construction to reduce mortality. Any animal found in the state of torpor shall be placed under the care of an approved veterinarian and released under the direction of CDFG biologists.	Reviewed during normal biological monitoring inspections.			

CALENDAR PAGE 573
MINUTE PAGE 998

BIOLOGY

COMPANY: _____ SPREAD: _____

MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
3.2.3.1 Tehachapi Slender Salamander Although no Tehachapi slender salamanders were located during the preliminary field surveys, potential habitat for this species exists near 1.5 miles of the proposed Mojave pipeline route. Therefore, the following preventative mitigation measures shall be implemented to avoid possible impacts.	Reviewed during normal biological monitoring inspections.			

CALENDAR PAGE 574
MINUTE PAGE 969

BIOLOGY

COMPANY: _____ SPREAD: _____

MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
Preconstruction surveys shall be conducted to identify and mark potential habitat near the ROW and access roads. If necessary, additional adjustments to the route shall be made to avoid direct impacts to Tehachapi slender salamander habitat.	Reviewed during normal biological monitoring inspections.			

CALENDAR PAGE 575
MINUTE PAGE 970

BIOLOGY

COMPANY: _____ SPREAD: _____

MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
Extracted materials removed during the trenching operation shall be contained as to not impact potential Tehachapi slender salamander habitat downslope from construction activities. Hay or straw bales shall be ground, staked out, and positioned on the edge of the ROW as required to prevent movement of excavated material.	Reviewed during normal biological monitoring inspections.			

CALENDAR PAGE 576
MINUTE PAGE 971

BIOLOGY

COMPANY: _____ SPREAD: _____

MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
Heavy equipment access routes and movements shall be monitored to avoid sensitive areas. These include areas vegetated by canyon oak and canyon crossings where erosion may occur as a result of lost vegetative cover.	Reviewed during normal biological monitoring inspections.			

CALENDAR PAGE 577
MINUTE PAGE 972

BIOLOGY

COMPANY: _____ SPREAD: _____

MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
Construction near Tehachapi slender salamander shall occur between March 1 and October 31 to minimize the potential for deposition of excavated material onto salamander habitat.	Reviewed during normal biological monitoring inspections.			

CALENDAR PAGE 576
MINUTE PAGE 973

BIOLOGY

COMPANY: _____ SPREAD: _____

MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
3.2.4.1 San Joaquin Kit Fox Preconstruction surveys shall be conducted within 14 days to 45 days prior to construction to identify all known or potential kit fox dens within the ROW or 150 ft on either side of the ROW. A 50 ft exclusion zone shall be placed around all known or probable kit fox dens and a 150 ft exclusion zone shall be placed around natal dens. This shall be accomplished by modification of the pipeline alignment around known kit fox dens, localized reductions in the width of the construction ROW, and a minimization of construction impacts to the least possible area within the corridor. In addition, preconstruction surveys shall include the area to be affected by water discharge during hydrostatic testing. If a kit fox den cannot be avoided, the USFWS and the CDFG shall be notified and the following procedures shall be implemented. Prior to surface disturbing activities, subject dens shall be inspected by a qualified wildlife biologist for telemetric or surface evidence of kit fox use. If the subject den is determined to be empty, the den shall be completely excavated by or under the direct supervision of a qualified biologist and then backfilled and compacted to preclude later use by kit foxes during the construction period. Any kit foxes discovered inside a den during excavation shall be allowed to escape unharmed before backfilling. If the subject den is determined to be currently occupied by kit foxes, progressive plugging of the den shall be employed to discourage kit fox use of the den until the den is determined unoccupied or for a maximum of five nights, which ever comes first.	Reviewed during normal biological monitoring inspections.			

BIOLOGY

COMPANY: _____ SPREAD: _____

MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
Known or potential natal dens shall not be excavated from January 1 through April 30 unless otherwise approved by Agencies.	Reviewed during normal biological monitoring inspections.			

CALENDAR PAGE 580
MINUTE PAGE 975

BIOLOGY

COMPANY: _____ SPREAD: _____

MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
All pipes and culverts potentially utilized by kit foxes for denning that will be removed or disturbed during construction shall be thoroughly inspected for kit foxes before disturbance begins. If it contains a kit fox, the fox shall be allowed to escape unharmed or shall be removed by a qualified biologist via trapping or plunging.	Reviewed during normal biological monitoring inspections.			

CALENDAR PAGE 581
MINUTE PAGE 976

BIOLOGY

COMPANY: _____ SPREAD: _____

MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
3.2.4.2 Tipton and Giant Kangaroo Rat Preconstruction surveys shall be conducted within potential habitat for the Tipton and giant kangaroo rat. This shall also include live trapping by permitted biologists. Wherever feasible, burrows of these species shall be avoided by minor rerouting of the pipeline. If the burrows cannot be avoided, the CDFG and USFWS shall be notified. With their concurrence, the burrows may be excavated or trapping or relocation of kangaroo rats may be recommended.	Reviewed during normal biological monitoring inspections.			

CALENDAR PAGE 582
MINUTE PAGE 977

BIOLOGY

COMPANY: _____ SPREAD: _____

MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
3.2.4.3 San Joaquin Antelope Ground Squirrel Preconstruction surveys shall also be conducted for the San Joaquin antelope ground squirrel. These surveys can be inconjunction with surveys for other species in the San Joaquin Valley. Burrows of this species shall be flagged and avoided where possible by rerouting the line or constricting of the ROW. Where avoidance is not possible, potential burrows shall be hand excavated prior to construction to reduce the potential for mortality.	Reviewed during normal biological monitoring inspections.			

CALENDAR PAGE 583
MINUTE PAGE 978

BIOLOGY

COMPANY: _____ SPREAD: _____

MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
3.2.4.4 Blunt-Nosed Leopard Lizard Construction in blunt-nosed lizard habitat shall be limited to period April 15 to September 15, when the species is active. Known blunt-nosed leopard lizard burrows or refugia in the construction zone shall be hand excavated and destroyed, with the lizards allowed to escape prior to construction. Speed limits in blunt-nosed leopard lizard habitat shall be restricted to 30 mph.	Reviewed during normal biological monitoring inspections.			

CALENDAR PAGE 584
MINUTE PAGE 979

RECLAMATION/REVEGETATION PLANS

COMPANY: _____
SPREAD: _____
MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
3.3.2.2 Preconstruction Surveys Existing vegetation characteristics shall be characterized by photographic documentation and characterization of vegetation characteristics. This survey shall be conducted by a qualified plant ecologist approved by the Agencies. A detailed plan of these activities shall be submitted to the Agencies within 30 days of initiation of the preconstruction survey. At a minimum this survey shall include: Aerial photographs and/or videotapes not more than 12 months old at a 1 to 12,000 scale of the entire project. Keyed photographs along each mile of the pipeline alignment. Two shall be taken - one in each direction along the alignment. Where state and/or federally listed plants are encountered, a complete analysis of the population including an absolute count of plants on and adjacent to the alignment or the use of a sampling method that will achieve a statistically valid (95 level of confidence) estimate of population. A [illegible] shall be provided to the Agencies [illegible] all data compiled during the [illegible]ction survey within 60 days after [illegible].	Plan should be reviewed and approved by SLC and other agencies prior to initiation of construction.			

RECLAMATION/REVEGETATION PLANS

COMPANY: _____ SPREAD: _____

MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
3.3.2.3 Post-Construction Surveys Post-construction surveys employing the same methodologies shall be conducted approximately five years after construction to serve as mechanism to qualitatively determine the success of the revegetation program. A post-construction survey report shall be submitted to the Agencies within 60 days of completion of the survey.	Plan should be reviewed by appropriate agencies.			

CALENDAR PAGE 586
MINUTE PAGE 981

RECLAMATION/REVEGETATION PLANS

COMPANY: _____ SPREAD: _____

MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
3.3.2.4 Grading and Erosion Control Once construction is complete, the pipeline alignment and access roads shall be recontoured to approximate the original contour. Heavily compacted soils shall be loosened through the use of a cultivator or similar device. Stockpiled topsoil shall then be placed on the surface. In order to reduce water erosion, slope angle and slope length shall be reduced where appropriate. In addition to the replacement of topsoil, rock and natural plant debris shall also be replaced to reduce erosion potential. Erosion control devices shall be placed where the pipeline alignments or new access roads are constructed on slopes or in other locations such as stream crossings where erosion may occur.	Reviewed during normal biological monitoring inspections.			

CALENDAR PAGE 587
MINUTE PAGE 982

RECLAMATION/REVEGETATION PLANS

COMPANY: _____ SPREAD: _____

MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
3.3.2.5 Top Soil Banking The top 2-6 inches of soil shall be separated and stock-piled along the pipeline alignment. Once backfilling and recontouring have been completed, this soil shall be replaced.	Reviewed during normal biological monitoring inspections.			

CALENDAR PAGE 588
MINUTE PAGE 983

RECLAMATION/REVEGETATION PLANS

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____ MONITOR: _____ DATE/APPROVAL	MILEPOSTS	COMMENTS
3.3.2.6 Revegetation Revegetation shall be required in the Tehachapi Mountains and San Joaquin Valley along all areas of the pipeline ROWs and new access roads where non urbanized or nonagricultural vegetation is present. This revegetation program shall consist of reseeding disturbed areas with native seeds typical of the community surrounding that portion of the alignment. Seeds shall be gathered in the proximity of construction area. Seeds shall be placed using a CALTRANS type sheepfoot Crimper. Mulching of seeds shall occur within the San Joaquin Valley and Tehachapi Mountains. Planting shall be conducted between October 15 and January 15. Due to the sensitive resources (e.g., kit fox and kangaroo rats) along the pipeline alignment, reseeding shall only occur once regardless of the success or failure of the revegetation program. Each pipeline company shall submit a detailed plan indicating planting methods, seed rates, and other aspects of the reclamation activity on a milepost by milepost basis.	Reviewed during normal biological monitoring inspections.			

CALENDAR PAGE 589
MINUTE PAGE 964

RECLAMATION/REVEGETATION PLANS

COMPANY: _____ SPREAD: _____

MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
3.3.2.7 Transplantation Transplantation or replanting of vegetation shall occur on a limited basis only and shall include the following instances: Transplanting sensitive cactus or other sensitive perennial species. Transplanting Joshua trees, and other specimen vegetation along the ROW. Replanting willows, oaks, sycamores, cottonwoods, and other riparian species at stream crossing. Oak removed during construction must be replaced at a ratio of no less than 10:1. Procedures for planting of oaks shall be approved by the Agencies.	Reviewed during normal biological monitoring inspections.			

CALENDAR PAGE 590
MINUTE PAGE 985

RECLAMATION/REVEGETATION PLANS

COMPANY: _____ SPREAD: _____

MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
3.3.2.8 Restoration of Agricultural Areas The pipeline alignment will cross agricultural areas in various areas primarily within the San Joaquin Valley. In these areas top soil shall be segregated and replaced after backfilling and recontouring. Vegetation such as fruit trees may be replaced at the individual landowners option.	Reviewed during normal biological monitoring inspections.			

CALENDAR PAGE 591
MINUTE PAGE 986

HABITAT REVEGETATION PLANS

COMPANY: _____ SPREAD: _____

MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
3.3.3.1 Mojave Desert General Requirements and Techniques All areas of the ROW containing native vegetation shall be restored by the replacement of the segregated topsoil onto the disturbed ROW. After return of the topsoil and the windrowed vegetation, the disturbed areas shall be imprinted. No mulching, fertilization or reseeding shall take place within the Mojave Desert beyond the replacement of the windrowed vegetation. Areas with a high potential; for either wind or water erosion shall be stabilized by the use of a tackifier such as J-tac (40-60 lbs/acre).	Reviewed during normal biological monitoring inspections.			

CALENDAR PAGE 592
MINUTE PAGE 987

HABITAT REVEGETATION PLANS

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____ MONITOR: _____ DATE/APPROVAL	MILEPOSTS	COMMENTS
3.3.3.2 Tehachapi Mountains General Requirements and Techniques Revegetation within the Tehachapi Mountains shall require additional erosion control devices due to the steepness of the terrain. Additionally, this area may require additional transplanting or planting of trees and other vegetation. Portions of the route through the Tehachapis will require special procedures. This seed mix shall not be used in areas where valley oak replanting shall be done. Reclamation in those areas shall include surface restoration and imprinting, followed by planting of acorns or young oaks. Steep slopes are present in some portions of the Tehachapi Mountains, especially at MPs 228-231.2 and 254.4-255.4. In areas with steep slopes, erosion shall be controlled and revegetation enhanced by mulching held in place by punching, crimping, or fiber netting. On severe or windy sites, netting, a wood fiber slurry (500 lbs/acre), or a tackifier such as J-tac (40-80 lbs/acre) shall be evaluated for use by the on-site biological monitoring staff at the time of revegetation. Narrow riparian areas are present at mileposts 232.2 and 236.3 of the Mojave route and shall be subject to special procedures including planting of riparian species and erosion control. Valley oaks trees destroyed during construction must be replaced. Procedures for replanting valley oaks from either acorns and/or seedlings must follow established practices.	Reviewed during normal biological monitoring inspections.			

CALENDAR PAGE 593
MINUTE PAGE 988

HABITAT REVEGETATION PLANS

MITIGATION MEASURE	REQUIREMENT TO COMPLY	COMPANY: _____ SPREAD: _____ MONITOR: _____		
		DATE/APPROVAL	MILEPOSTS	COMMENTS
Timing of Planting Planting and seeding shall be conducted between October 15 and January 15.	Reviewed during normal biological monitoring inspections.			

CALENDAR PAGE 594
MINUTE PAGE 989

HABITAT REVEGETATION PLANS

COMPANY: _____ SPREAD: _____

MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
3.3.3.3 San Joaquin Valley General Requirements and Techniques Seeding shall be conducted in all areas of the San Joaquin Valley containing grassland and salt bush communities. Little, if any, transplantation is anticipated with the exception of potential transplanting of sensitive cactus species (Bakersfield beavertail cactus).	Reviewed during normal biological monitoring inspections.			

CALENDAR PAGE 595
MINUTE PAGE 990

HABITAT REVEGETATION PLANS

COMPANY: _____ SPREAD: _____

MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
<u>Reseeding Methods and Seed Mixtures</u> *Atriplex polycarpa* *A. spinifera* *Erodium cicutarium* *Phacelia tanacetifolia* *Festuca megalura* *Poa scabrella* (native grassland areas) Seeds shall be from Southern or central San Joaquin Valley Populations. A CALTRANS type sheepsfoot crimper shall be used in tacking the hay mulch following seeding. Hay or straw mulch at a rate of two tons per acre shall be used.	Reviewed during normal biological monitoring inspections.			

CALENDAR PAGE 596
MINUTE PAGE 691

HABITAT REVEGETATION PLANS

COMPANY: _____ SPREAD: _____

MONITOR: _____

MITIGATION MEASURE	REQUIREMENT TO COMPLY	DATE/APPROVAL	MILEPOSTS	COMMENTS
Timing of Planting Seeding shall occur between October 15 and January 15.	Reviewed during normal biological monitoring inspections.			

CALENDAR PAGE 597
MINUTE PAGE 992