SUMMARY OF RESULTS FROM THE ATLAS/COALINGA RI:

- Quantification: Quantification of asbestos levels in soil, water and air have wide ranges due to problems with the analytical techniques for asbestos; all ranges will be presented in the final RI. No "black and white" decisions can be made based on data or risk models.

- Air Results: Almost no asbestos blows directly off the sites without mechanical disturbances (ORV, hunters, cattle). Activities on the mine tailings poses a high inhalation risk for bikers, hunters, etc. (10-100 visitors to area each day); forty hunters buy permits to be in the area and have keys to areas.

- Soil Results: Soil results from similar samples range from ND to 98% due to quantification problems with asbestos analytical techniques.

- Water Results: Concentrations very high but almost all short fibers. Concentrations above the mine site is greater than what is running off the Coalinga mine .,

  MCLG: Exceeding the MCLG by discharging flood waters into the California Aqueduct from Los Gatos Creek is not likely. To be conservative and to respond to the public EPA will order that asbestos-laden flood waters cannot be discharged into the aqueduct.

- Asbestos from NPL Sites via Water Pathway: Model efforts show 5-37% of the asbestos entering the creeks comes directly from the sites, depending on model effort.

  Contributions

  Atlas only: 30% of asbestos carried to Huron via surface water pathway; PRP estimates 4% from Atlas.

  Coalinga only: 5% of waterborn asbestos carried to Huron; Coalinga contribution lower than Atlas primarily due to a small non-permanent retention dam below the site and temporary stream diversion; PRP estimates .5% from Coalinga.

  Other mines: 48-58% maximum according to EPA contractor model.

  Natural: 6-10% of asbestos carried to Huron via surface water transport.

- Natural Runoff: Differentiation between natural and mined asbestos is not possible. Both SPLC's consultants and labs and EPA staff and contractors have concluded this.

the Coalinga pit

Feasibility Study Analysis of Remedial Alternatives

Alternative #1:

- o No Remedial Action
- o Continued Monitoring Program for the Atlas site including streamwater and airborne asbestos sampling, and aerial photographic reviews

Present worth costs over 30 years: $833,200

Alternative #2:

- o Restrict access to Atlas site by fencing mines and stockpile areas

Construction capital costs:	$473,600	
O&M costs:	87,600	(n=30 years)
Present worth costs:	561,200	

Alternative #3:

- o Interception and diversion of run-on surface waters upstream of mines and stockpiles
- o Minimally-intrusive improvements to surface drainage of mines and stockpile areas
- o Run-off and sediment retention dams at mines and stockpile areas
- o Fence mines and stockpile areas

Total capital costs:	$3,943,000	
O&M present worth:	285,900	(n=30 years)
Total present worth:	4,228,900	

Alternative #4: (Extension of Alternative #3)

- o Complete regrading and engineered improvements to surface drainage of mines and stockpile areas
- o Interception and diversion of run-on surface waters upstream of mines and stockpiles
- o Run-off and sediment retention dams at mines and stockpile areas
- o Fence mines and stockpile areas

Construction capital costs:	$9,115,900
O&M present worth:	285,900
Total present worth:	9,401,800

Alternative #5:

- o Construct vegetated soil cap on mine surfaces and stockpiles
- o Intercept and divert run-on surface waters upstream of mines and stockpiles
- o Fence mines and stockpiles

Construction capital total:	$14,334,600	
O&M present worth:	285,900	(n=30 years)
Total present worth:	$14,620,500	

Alternative #6:

- o Completely excavate, chemically fixate and replace on-site waste material

Construction capital costs:	$103,335,800	(n=4 years)
O&M present worth:	137,400	(n=30 years)
Total present worth:	103,473,200	

Alternative #7:

- Removal of waste material to Class I landfill facility

Present worth costs: $243,326,000 (n=10 years)

Alternatvie #8:

- Construction of dam at White Creek
- Costs based on reports by DWR; not enough information is available at this time to predict accuracy of capital costs versus yearly O&M estimates, but this analysis is useful for comparitive purposes.

Present worth costs including 100-year O&M $16,500,000

Alternative #9:

- Enlarge existing ponding basin in Huron
- Would be suggested as a recommendation to BOR/DWR

Land aquisition:	$28,490,000
Construction:	26,290,000
Total Capital:	54,780,000
O&M Present worth:	25,365,000 (n=30 yrs)
Total Present worth:	$80,145,000

Notes:

- high costs are associated with importation of water supplies for dust suppression costs/wetting soil to satisfy NESHAP; hauling rates for borrow sources due to elevation gain with sources assumed near Los Gatos Creek; remote location of sites includes a margin for cost error in contingencies, etc.
- assuming no RCRA soil cap; only 6" vegetated cover
- assuming very little level C/respirator use due to wetting soils
- assuming heavy equipment with positive pressure ventilation