

Cumulative Hydrologic Impact Assessment

**Peabody Western Coal Company
Kayenta Complex**



United States Department of the Interior
Office of Surface Mining Reclamation & Enforcement
Western Region

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CUMULATIVE HYDROLOGIC IMPACT ASSESSMENT

of the

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Cover:

Photograph of reclaimed area within the Kayenta Complex, northern Arizona. (OSMRE photograph taken by Paul Clark.)

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List of Acronyms and Abbreviations

3D Model	regional three-dimensional numerical flow model of D and N aquifers
ac-ft	acre-feet
AgL	agricultural livestock watering
AgI	agricultural irrigation water
AgWS	agricultural water supply
ALJ	administrative law judge
A&W _e	aquatic and wildlife - ephemeral
A&WHbt	aquatic and wildlife habitat
BIA	Bureau of Indian Affairs
C aquifer	Coconino aquifer
cfs	cubic feet per second
CHIA	cumulative hydrologic impact assessment
CIA	cumulative impact area
CFR	Code of Federal Regulations
CG	crest gage
CWA	clean water act
D aquifer	Dakota aquifer
DWS	domestic water supply
EA	environmental assessment
EIS	environmental impact statement
EPA	Environmental Protection Agency
ft/sec	feet per second
FC	fish consumption
FR	federal register
gpd/ft	gallons per day per foot
GWR	groundwater recharge

HTWQS	Hopi Tribe water quality standards
HUC	hydrologic unit code
LW	livestock watering
MDL	method detection limit
mg/L	milligrams per liter
mi ²	square miles
N aquifer	Navajo aquifer
NNSWQS	Navajo Nation surface water quality standards
NPDES	National Pollutant Discharge Elimination System
OSMRE	Office of Surface Mining Reclamation and Enforcement
PAP	permit application package
PBC	partial body contact
PHC	Probable Hydrologic Consequences
PWCC	Peabody Western Coal Company
PWS	public water supply
ScHC	secondary human contact
SMCRA	Surface Mining Control and Reclamation Act
TDS	total dissolved solids
TSS	total suspended solids
µg/L	micrograms per liter
USEPA	United States Environmental Protection Agency
USGS	United States Geologic Survey