

Riverside East SEZ Initial Prioritization of Monitoring Objectives

In order to begin focusing in on an achievable monitoring plan, the BLM and Argonne team used the criteria outlined in the handout Monitoring Objectives Prioritization Criteria to screen the existing monitoring objectives. This handout shows the initial results of the screening exercise. Those monitoring objectives that ranked highest based on the importance and feasibility criteria are noted as the highest priority. These results are for discussion only and do not represent a final decision.

MONITORING OBJECTIVES-HUMAN ELEMENTS	
HIGHEST PRIORITY	
Detect changes in the contextual integrity of cultural sites	Detect changes in the visual character of the landscape including night sky
Detect \geq X% change in the number of authorized and unauthorized uses in Specially Designated Areas (SDAs) and lands with wilderness characteristics, as well as disturbances and restoration	Detect changes \geq X% in the cultural user experience (including native American) in the xx-mile buffer area (not defined) around the facility
Detect changes in scenic value of \geq X% for locations of scenic value that include solar facilities within their viewsheds.	
MEDIUM PRIORITY	
Detect increase in noise levels \geq X% dBA within a XX mi radius of project	Detect increased glint/glare levels above visual impairment thresholds relevant to transportation and human health
Detect changes in the health of low-income and minority populations	Detect changes \geq X% in the reported recreational user experience in the xx-mile buffer area around the facility
Detect changes in human health	Detect cumulative impacts to military uses
Detect changes \geq X% in the amount, location, or type of recreational uses in the xx-mile buffer area around the facility	Detect \geq X% increased regional traffic and access
LOWER PRIORITY	
Detect changes in the regional income and employment of low-income and minority populations	Detect changes in the human environment in relation to low-income and minority populations
Detect changes \geq X% in number of visitors at the LTVA and Joshua Tree NP	

MONITORING OBJECTIVES- PHYSICAL	
HIGHEST PRIORITY	
Detect increases or decreases in runoff volumes from the SEZ of more than XX% compared to pre-development runoff	Detect XX% deviations from baseline surface hydrology in intermittent wetland, stream and lacustrine habitat
Detect changes in channel location and morphology of more than XX% compared to pre-development runoff	Detect increases in soil erosion rates within X mi of the SEZ of XX%
Detect whether basin-scale groundwater withdrawals exceed a defined sustainable yield (xx acre feet per year)	Detect decreases in groundwater surface elevations of XX ft in monitoring wells on or near projects (can vary this by position in the basin as needed)
Detect changes in PM within all Class I areas of XX %	Detect changes in off-site dust of greater than XX%
Detect changes in sand dune size and location of XX%	
MEDIUM PRIORITY	
Detect increases in basin-scale losses of desert pavement of XX%	Detect changes in annual sediment yield to the fluvial system in and outside of the SEZ of XX%
Detect changes in soil aggregate stability greater than X%	Detect changes in sand transport rate of XX%.
Detect carbon releases of X ppm from disturbed areas	
LOWER PRIORITY	
Detect changes to sand penetrability, surface coarseness, and surface stabilization downwind of solar facilities of XX%.	Detect changes in basin-scale average infiltration and permeability rates of more than XX%
Detect changes in ozone of greater than XX DU	

MONITORING OBJECTIVES - ECOLOGICAL	
HIGHEST PRIORITY	
Detect increases or introductions of $\geq X\%$ in invasive plant species in and surrounding the SEZ relative to control site	Detect changes of $\geq X\%$ in bare ground cover, $\geq X\%$ in total plant cover, and $> X\%$ of intercanopy gaps, and $> X\%$ in woody plant height within a XX mi buffer of SEZ
Detect changes in wildlife indicator species populations of $\geq XX\%$ relative to control sites (or maintain populations within historical ranges). Indicators of concern at the December 2013 meeting were migratory birds, plant pollinators and seed dispersal, and aerial invertebrates	Detect reductions in habitat quality and connectivity for special status species of $\geq XX\%$ within X mi of SEZ (Can make this objective specific to individual or groups of habitat characteristic variables)
Detect changes in habitat use by migratory birds of $\geq XX\%$ relative to control sites	Maintain special status species population targets specified in land management plans (e.g. desert tortoise density in SEZ and nearby Chuckwalla DWMA)
Detect changes $\geq X\%$ of high priority vegetation communities with in a XX mi buffer of the SEZ	Detect decreases in the amount or quality of habitat for migratory birds of more than X% at X scale
Detect decreases in habitat connectivity that are more than X% at X scale	Detect increases or introductions of $> X\%$ in invasive wildlife species in and surrounding the SEZ relative to control site (e.g. ravens in SEZ and nearby Chuckwalla DWMA)
MEDIUM PRIORITY	
From proposed USGS connectivity study: Detect an increase in genetic differentiation among individual desert tortoises and populations to assess whether developments and habitat barriers affect the genetic structure of the population in the Chuckwalla Valley. Monitor individual movement and coincident locations of desert tortoises and subsequent overlap of home ranges throughout the corridor; the rates of contact would be compared to rates of contact and connectivity in uncompromised habitats.	For a wildlife indicator species, detect decreases in the amount or quality of habitat more than X% at X scale
Detect change in use of designated wildlife corridors (DRECP and Solar EIS) by bighorn sheep and burro deer.	Determine the position of solar developments in relation to migratory bird pathways
Detect increases in basin-scale losses of biological soil crust of XX%	

LOWER PRIORITY	
Detect changes $\geq X\%$ in regional plant pollination	Detect changes $\geq X\%$ in regional seed dispersal
Detect $\geq X\%$ changes in plant phenology with in a XX mi buffer of the SEZ	Detect changes in plant litter
Detect a change in the prevalence of disease (e.g., upper respiratory tract disease, herpesvirus, cutaneous dyskeratosis), or a change in the amount of non-native, invasive plant species in the Chuckwalla DWMA	Detect occurrence and spread of canine distemper virus, and population status and trends of the desert kit fox across the eastern Riverside County area.