Nature-based BMPs with Co-Benefits for Water Quality and Hazard Mitigation

Example Nature-based BMPs for Water Quality | **Level of Overlap for Mitigating Natural Hazard Effects**

Example Nature-based BMPs for Water Quality	Flood	Fire	Landslide	Drought	Urban Heat Island	Airborne Dust and Particulates
Regional infiltration basins	Strong	Partial	Strong	Partial		Partial
Neighborhood scale GI/LID practices such as rain gardens, bioretention, and permeable pavement	Strong	Strong			Strong	
Stream restoration including pooling and meandering to enhance infiltration	Strong	Strong	Strong	Strong	Strong	Strong
Floodplain restoration including floodplain benching	Strong	Strong			Strong	Partial
Stream (riparian) buffers	Strong	Strong	Strong	Strong	Strong	Strong
Using park green space and ball fields to store and infiltrate	Strong	Partial	Partial	Strong		Partial
Daylighting streams and stormwater pipes	Strong	Strong	Strong		Strong	
GSI/LID building and zoning codes	Strong	Strong	Strong	Strong	Strong	Strong
Stormwater-friendly post-construction design	Strong				Strong	Partial
Protecting and restoring natural wetlands	Strong	Strong	Partial	Partial	Strong	Strong
Agricultural soil health practices including soil conservation	Partial	Partial	Partial	Partial		Strong
Aquifer storage and recovery	Strong	Partial		Strong		
Urban forest/tree canopy and tree preservation	Partial	Partial			Strong	Strong
Regional detention and retention basins	Strong	Strong				
Native vegetation/ landscaping	Partial	Partial	Partial	Strong	Strong	Strong
Preserve open space/green space	Partial	Partial		Partial	Strong	Strong

Natural Hazards

Flood • Fire • Landslide • Drought • Urban Heat Island • Airborne Dust and Particulates

Strong Overlap (dark square) • Partial Overlap (blue circle)

Nature-based BMPs with Co-Benefits for Water Quality and Hazard Mitigation

Nature-based BMPs with Ecosystem Services

Example Nature-based BMPs for Water Quality

- Regional infiltration basins
- Neighborhood scale GI/LID practices such as rain gardens, bioretention, and permeable pavement
- Stream restoration including pooling and meandering to enhance infiltration
- Floodplain restoration including floodplain benching
- Stream (riparian) buffers
- Using park green space and ball fields to store and infiltrate
- Daylighting streams and stormwater pipes
- GSI/LID building and zoning codes
- Stormwater-friendly post-construction design
- Protecting and restoring natural wetlands
- Agricultural soil health practices including soil conservation
- Aquifer storage and recovery
- Urban forest/tree canopy and tree preservation
- Regional detention and retention basins
- Native vegetation/ landscaping
- Preserve open space/green space

Level of Overlap with Ecosystem Services

Ecosystem Services

- Floodwater Storage
- Wildfire Resistance
- Steep Slope Stability
- Cultural and Livability Services
- Freshwater Provisioning
- Habitat
- Sediment and Soil Retention
- Stormwater Infiltration/ Aquifer Recharge
- Ecosystem Resilience

Strong Overlap
Partial Overlap

Ecosystem Services for Stormwater Management Practices