

Colorado Plateaus Region					
Geologic Period	Phase	Stratigraphic Unit		Hydrogeologic Unit	
Quaternary	Modern-Glaciation	Alluvium associated with present rivers		Alluvial Aquifers	
Neogene	Extension	Basalt flows and small intrusives		Volcanics	
		Browns Park Formation		Browns Park Aquifer	
Paleogene	Transition	Bishop Conglomerate		Bishop Aquifer	
	Laramide	Laramide basin formations form multiple aquifers; include San Juan, Piceance and Sand Wash basins		Multiple units	
Cretaceous	Interior Seaway	Mancos Group	Mancos Shale-Prairie Canyon Member	Mancos confining unit	
			Niobrara Formation		
			Montezuma Valley-Blue Hill-Coon Springs-Bridge Creek-Graneros		
		Dakota Sandstone		Dakota Aquifer	
		Burro Canyon Formation			
Jurassic	Mesozoic Sandstones	Morrison Formation	Morrison Formation: Brushy Basin Member	Morrison confining unit	
			Morrison Formation: Saltwash Member	Morrison Aquifer	
		San Rafael Group	Curtis-Stump-Wanakah Formations		Curtis-Stump confining unit
			Entrada Sandstone		Entrada Aquifer
			Carmel Formation		Carmel confining unit
		Glen Canyon Group	Navajo Sandstone		Navajo Aquifer
			Kayenta Formation		
			Wingate Sandstone		
		Triassic		Chinle Formation	
Permian		Moenkopi-State Bridge Formations		State Bridge unit	
Pennsylvanian	Ancestral Rocky Mountains	Ancestral Rocky Mountains event marine and non-marine sedimentary formations form multiple aquifers in the Eagle Basin-Central Colorado Trough and Paradox Basin		Multiple units	
Mississippian	Paleozoic Carbonates	Lower Paleozoic sedimentary formations that are dominantly limestone and dolomite form multiple aquifers preserved in the Eagle Basin-Central Colorado Trough and Paradox Basin may be present depending on location		Lower Paleozoic carbonate aquifers	
Devonian					
Silurian					
Ordovician					
Cambrian					
Precambrian	Precambrian	Crystalline rocks of igneous and metamorphic origin in the mountainous region		Crystalline bedrock	

Table 11a.03-01 Colorado Plateaus region stratigraphic chart

Colorado Plateaus Region									
Geologic Period	Phase	Stratigraphic Unit		Unit Thickness (ft)	Physical Characteristics	Hydrogeologic Unit	Hydrologic Characteristics		
Quaternary	Modern-Glaciation	Alluvium associated with present rivers				Alluvial Aquifers			
Neogene	Extension	Basalt flows and small intrusives			Basalt flows, mafic, intermediate, and felsic intrusives	Volcanics			
		Browns Park Formation			Loosely cemented tuffaceous sandstone and conglomerate	Browns Park Aquifer			
Paleogene	Transition	Bishop Conglomerate			Conglomerate and ash flow tuff	Bishop Aquifer			
	Laramide	Laramide basin formations form multiple aquifers; include San Juan, Piceance and Sand Wash basins				Multiple units			
Cretaceous	Interior Seaway	Mancos Group	Mancos Shale-Prairie Canyon Member	1,000-10,000	Shales interbedded with minor sandstone and limestone	Mancos confining unit	Sandstone layers might yield limited water		
			Niobrara Formation		Calcareous shale and limestone				
			Montezuma Valley-Blue Hill-Coon Springs-Bridge Creek-Graneros		Shale, interlaminated siltstone, and thin-bedded sandstone				
		Dakota Sandstone		0-300	Fine to coarse grained cross-bedded sandstone, conglomerate, siltstone, mudstone, carbonaceous shale and coal	Dakota Aquifer		Statewide regional bedrock aquifer that yields some water to stock and domestic wells and springs but can be very productive when fractured	
Burro Canyon Formation		0-250	Conglomerate, sandstone and shale						
Jurassic	Mesozoic Sandstones	Morrison Formation	Morrison Formation: Brushy Basin Member	400-500	Shale interbedded with minor sandstone	Morrison confining unit			
			Morrison Formation: Saltwash Member	~300	Medium grained sandstone interbedded with red shale	Morrison Aquifer	Yields small quantities to stock and domestic wells		
		San Rafael Group	Curtis-Stump-Wanakah Formations		<120	Siltstone interbedded with shale and fine-grained sandstone with some limestone and gypsum	Curtis-Stump confining unit		
			Entrada Sandstone		15-170	Buff to grayish-white cross-bedded sandstones	Entrada Aquifer	Widespread aquifer throughout the Colorado Plateau region that potentially holds a considerable amount of water	
			Carmel Formation		0-40	Siltstone and mudstone interbedded with fine-grained sandstone	Carmel confining unit		
		Glen Canyon Group	Navajo Sandstone		0-125	Fine-grained, cross-bedded quartz sandstone	Navajo Aquifer	Small to moderate amounts from fractures to stock and domestic wells	
			Kayenta Formation		0-200	Sandstone interbedded with siltstone and thin-bedded shale			
			Wingate Sandstone		0-400	Medium grained, poorly cemented, cross-bedded sandstone			
		Triassic		Chinle Formation		>420	Reddish-brown silty sandstone and siltstone with pink limestone and brown to green siltstone	Chinle confining unit	Yields small quantities where fractured to stock and domestic wells
		Permian		Moenkopi-State Bridge Formations		<200 - >400	Mudstone interbedded with minor sandstone	State Bridge unit	Yields small quantities to stock and domestic wells
Pennsylvanian	Ancestral Rocky Mountains	Ancestral Rocky Mountains event marine and non-marine sedimentary formations form multiple aquifers in the Eagle Basin-Central Colorado Trough and Paradox Basin				Multiple units			
Mississippian	Paleozoic Carbonates	Lower Paleozoic sedimentary formations that are dominantly limestone and dolomite form multiple aquifers preserved in the Eagle Basin-Central Colorado Trough and Paradox Basin may be present depending on location				Lower Paleozoic carbonate aquifers			
Devonian									
Silurian									
Ordovician									
Cambrian									
Precambrian	Precambrian	Crystalline rocks of igneous and metamorphic origin in the mountainous region				Crystalline bedrock			

Table 11a-03-01. Colorado Plateaus region stratigraphic chart, detailed. Colorado Geological Survey ON-010 Colorado Groundwater Atlas.

Sources: Whitfield and others (1983); Ackerman and Rush (1984); Craigg and others (1990); Dam and others (1990); Freethy and Cordy (1991); Geldon (2003); Reynolds and Hagadorn (2017)