ERA	PERIOD	Epoch	Washoe/Storey Co. Formation or Name	Symbol	Thickness (est. in feet)	Description / Paleontology Potential		Pershing County Formation or Name	Symbol	Thickness (est. in feet)	Description / Paleontology Potential		Humboldt County Formation or Name	Symbol	Thickness (est. in feet)	Description / Paleontology Potential		Epoch	PERIOD	ERA
CENOZOIC	HOLOCENE QUATERNARY	H											Younger alluvium	Qya	ND	playa, dune, & stream deposits, L. Lahontan deposits		H	HOLOCENE	CENOZOIC
				Qal, Ql, Qsl, Qls	ND	stream, lake, colluvial, alluvial, and aeolian deposits			Qal, etc	+8,000	lacustrine, alluvial, landslide, floodplain, dune and playa		Older alluvium, Gravel dep	Qoa, Qg	ND	alluvial fan, bench gravels, landslide deposits			QUATERNARY	
		P	pre-Lake Lahontan dep.	QTg	ND	alluvial and lacustrine deposits			Qtb		basalt		Vesicular olivine basalt	QTb	ND	basalt		P		
	TERTIARY	P	Washington Hill, basalt	Tir, Tab	3,000 (basalt)	volcanic intrusive/extrusive rocks							Mesa basalt of Merriam	Tmb	ND	basalt		P		
			Coal Valley and Truckee	Tst	ND	volcanic and sedimentary rocks	*		Ts, Tcg, Tts	+3,000	sedimentary rocks, tuff, diatomite beds	*	Thousand Cr beds of Merriam	Ttc	ND	tuff, shale, sandstone, mudstone, conglomerate	*			
			High Rock, Canon Rhyolite	Tts, Tcr	ND	Diatomite, sedimentary & volcanic rocks	*		Tba	ND	basalt and andesite		Virgin valley beds of Merriam	Tvv	800	tuff, shale, sandstone, mudstone	*			
				Tba	1,000	basalt			Tir, Tip	ND	rhyolite, rhyolite porphry			Ts, Trd, Ti	ND	sedimentary rocks, volcanic rocks, intrusive rocks	*			
		M	Pyramid Sequence	Tsv		volcanic and sedimentary rocks	*	Fish Cr Mtns Tuff & others	Tf, Twt, Tra	ND	tuff, rhyolite, and andesite			Tba, Tu	2,500-3,000	volcanic and sedimentary rocks	*	M	TERTIARY	
		O	South Willow	Tsw		volcanic rocks			Tgd	ND	granodiorite							O		
								Caetano Tuff (Tc)	Ta, Tc, Tb	1,250	andesite, rhyolite tuff, basalt									
		E											Granodiorite	TKg	ND	all quartz-bearing, pre- to late Tertiary instrusive rocks		E		
		P											Pansy Lee Conglomerate	TKpl	400-500	conglomerate, sandstone, siltstone		P		
MESOZOIC	CRETACEOUS			Kgd	ND	gabbro to quartz monzonite and granite pegmatite		Rocky Canyon	Kgrc	ND	granodiorite								CRETACEOUS	
								New York Canyon	Kqny	ND	quartz monzonite									
									Kgd, Klg, Kap	ND	granodiorite, leucogranite, aplite		King Lear	Kkl	3,000	conglomerate, graywacke, siltstone, limestone	*			
									fd, dd	ND	felsic dike, diabasic dike									
													Intrusive rocks	Kji	ND	dioritic intrusive rocks				
	JURASSIC								Jgd, Jgb	ND	granodiorite, gabbro								JURASSIC	
			Peavine Sequence	*mv, ms, mvs*	*ND*	*Outside of Winnemucca Field Planning Area*	*	Boyer Ranch	Jb	500	conglomerate, limestone, sandstone		Limestone	JTrl	1,700	limestone	*			
			Nightingale Sequence	msr	3,000	Metamorphosed sedimentary rocks		*Auld Lang Syne Group*	Jtra, JTrl, Trs		slate, phyllite, hornfels, quartzite; carbonate rocks			Jtru	ND	phyllite, slate, fine-grained quartzite				
								Rasberry, Winnemucca	Trra, Trwi	3,000; 1,200	sedimentary rocks	*	Rasberry	Trr, Trm, Tra, Trs	7,000-8,000	sedimentary and volcanic rocks	*			
								Dun Glen, Grass Valley	Trdg, Trgv	1,150	sedimentary rocks	*	Quartzite and mudstone	Trqm	3,000-4,000	quartzite and mudstone				
								Grass Valley & Osobb	Trgvo	1,800	sedimentary rocks	*	Winnemucca	Trw	3,000	sedimentary rocks	*			
													Dun Glen, Grass Valley	Trdg, Trgv	+2,000	sedimentary rocks				
								Natchez Pass	Trnp, Trnpv	2,400	carbonate rocks, volcanic flows and breccia	*	Natchez Pass	Trnp	1,650	sedimentary and volcanic rocks	*			
									Md, Trm	ND	metadiabase, metasedimentary rocks: marble and slate									
	TRIASSIC							*Prida*	Trp, Trpu, Trpmi		limestone, dolomite, siltstone, shale, sandstone	*							TRIASSIC	
								Cane Spring, Augusta Mtn	Trca	2,500	limestone, dolomite	*								
								Favret, Dixie Valley, Tobin	Trf, Trdv, Trt		sedimentary rocks: limestone, shale, sandstone	*								
								Koipato Group undiv	Trk	ND	volcanic & sedimentary rocks									
								Weaver	Trwe	2,000	rhyolite flows, sedimentary rocks in upper Weaver	*	Koipato Formation	Tr-Mu	200	volcanic rocks				
								Rochester	Trro	ND	rhyolite flows									
								Limerick Greenstone	Trl	6,000	andesite, breccias, tuffs		Quinn River Formation	Trqr	500-600	mostly silty shale	*			
									Trrp, Trlg	ND	rhyolite porphyry, leucogranite			TrPu	3,000-5,000	sedimentary and volcanic rocks	*			
PALEOZOIC	PERMIAN			PTrm	ND	Meta- sedimentary & volcanic rocks		Metavolcanic rocks	Pm	ND	Metavolcanic rocks with interstrat. limy shales and chert	*	Unamed Limestone	Pul		only in S end of Kings R. Range			PERMIAN	
	PENNSYLVANIAN												Happy Cr Volcanic Series	Ph	+3000	andesite to basalt volcanic rocks			PENNSYLVANIAN	
													Edna Mtn, Antler Peak	PPa, PPu	1,400	limestones, includes Highway limestone	*			
														PPfc, PPs	2,100	sedimentary and volcanic rocks	*			
								Havallah	PPh, PPhp	15,000-17,000	quartzite, chert, argillite, limestone, sandstone, greenstone	*	Havallah	PPh, PPhp	4,600	quartzite, chert, argillite, limestone, sandstone, greenstone				
								Pumpernickel	PPp		greenstone, chert, argillite		Pumpernickel	PPp or Pp	6,000	greenstone, chert, argillite	*			
	MISSISSIPPIAN							Inskip	Mi	ND	sandstone, conglomerate, quartzite, schist, limestone	*	Unamed Volcanic Rocks	Mvr	1,000	altered volcanic rocks, limestone, and lesser sed. rocks	*		MISSISSIPPIAN	
	DEVONIAN																		DEVONIAN	
								DISCONFORMITY OR FAULT CONTACT					UNCONFORMITY							
	SILURIAN																		SILURIAN	
	ORDIVICIAN												Comus	Oc	5,450	limestone, dolomite, and shale	*		ORDIVICIAN	
								Valmy	Ov	ND	argillite, chert, greenstone, quartzite	*	Valmy	Ov	7,000	shale and limestone with chert, altered volcanic rocks	*			
													Sonoma	Osr	3,000	sedimentary and volcanic rocks				
	CAMBRIAN							Harmony (1)	Ch	ND	sandstone, conglomerate, argillite, limestone	*	Harmony (1)	Ch	5,000	sedimentary rocks, altered volcanic rocks			CAMBRIAN	
													Unamed Chert	Cc	500	Exposed along east side of Paradise valley				
								Preble	Cp	12,000	phyllite, slate, limestone	*	Preble	Cp	12,000-15,000	shale and limestone with chert	*			
													Osgood Mtn Quartzite (2)	Com	5,000'	Quartzite				

Notes : Rock units or formations summarized only within the boundaries of the Winnemucca Planning Area.

Formation or rock unit thickness is estimated greatest thickness taken from published source

ND : Not determined in the references used

* : Paleontological potential described in Table 2

(1) Harmony Formation assigned to Devonian Period (Jones, 1997)

(2) Osgood Mountain Quartzite Formation assigned to Proterozoic-Cambrian Period (Jones, 1997)

Stratigraphic Section of the Winnemucca RMP Planning Area prepared from the following references:

Bonham, H.F., 1969, Geology and mineral deposits of Washoe and Storey Counties, Nevada, NBMG Bulletin 70.

Johnson, M.J., 1977, Geology and mineral deposits of Pershing County, Nevada, NBMG Bulletin 89.

Willden, R., 1964, Geology and mineral deposits of Humboldt County, Nevada, NBMG Bulletin 59.

Jones, A.E., 1997, Geology of the Delvada Spring Quadrangle, Humboldt County, Nevada, NBMG Field Studies Map 13.

Table 2-1. Geologic Section of the Winnemucca RMP Planning Area

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