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Table 1. Annexation Parcels, Proposed Lot Line Adjustment and Prezoning

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FÍÏËÈˀGÁ	l€ĽÁ	JÈ€Á	Úæt&^ ÁtÁ, ā Áà^&[{ ^ÁædÖ^ç^ []{ ^}œfÚæt&^ Áājæ^}å^åÁ{;¦Á •āj* ^Ëæ{āîÁ@;*•āj*Áæ}åÁ;¦^:[}^åÆÜFËPEXÁ
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FÍÏË€H€Ë€GÁ	G€ÈÉÁ	JÈÁ	Úæl&^ ÁÎÁ¸ā Áà^&[{^ÁæÁÖ^ç^ []{^}œÚæl&^ Áājæ^}å^åÁ[¦Á •ā* ^Ëæ{āîÁ@;*•ā;*Áæ}åÁ;!^:[}^åÁÜFËPÉÄ
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FÍÏË€H€Ë€HÁ BÁ FÍÏˀ΀ˀHÁ	FÌ Ì Ě Á	FÌÌĚÁ	Úæk&^ ÁF€ÁÇÔãĉË;}^åÁ%Ö[}æāī}ÁÚæk&^ +DÁ¸ā Áà^&[{^ÁæÁ Ô[}•^\çæāī}ÁÚæk&^ Áæ}åÁ¸ā Áà^Á,'^:[}^åÁÚØÈÁ
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å^•āt}æaā[}ÈÁP[ˌ^ç^¦ÊÁà^&æĕ•^Ác@^Áj¦[][•^åÁÖ^ç^|[]{^}ơÁOE¦^^{^}}oÁ, [ˇ|åÁjā[ãoÁå^ç^|[]{^}ơÁ[Á [}^Áj¦ā[æð^Áå, ^||ā/*Á'}āxÁ]^\Ájæ&\|ĒÁ;¦Ác@áÁæ)æf•ãÆāxÁãÁæ••*{ ^åÁc@æA`]Á(Á•^ç^}Á•ā;*|^Ëæ; āfÁ @[{ ^•Á, ā|Áà^Áå^ç^|[] ^å ÈÁQ Áœàåããã;}ÊÁ;}^ÁOEÖWÁ;æê Áà^Áå^ç^|[]^åÁ;^¦Á[dÊÁ;¦ÁœÁ;œaḥÁ;ÁFIÁ;}ã• ÈÁY @ǎ^Á $c@\hat{a} / A_0 = a^2 \hat{a} / A_0 = a^2 \hat{$ &[] • dæaj œ Êác@ Ásæà[ç^Ëå^• & aãa^å Ásæ • `{] aāj} • Án} • `\^Ás@æaÁc@ ÁÖ^ç^|[] { ^} aÁOE \^^{ ^} oÁ, [¦ aāj} Án, Ás@ Á Ú¦[b/8c/Ána Ánaða^~~~aec^|^Ánaða aef^:^åÁ}å^!ÁÔÒÛŒHÁOHHÁ;c;¦^Ána^ç^|[]{ ^}oÁ;}ÁÚad-8c^|•Án É Á;[~|åÁna^Ánaða aef^:^åÁ [}ÁæÁ]; [b/8cÁ/c^|Áàæaa Á [lÁ8[}•ã c^} & Á āc@Áæ) åÁ •^Á[|á8æð•LÁæ) åÁ [`låÁà^Á*`àb/8cÁ[Áàã &l^ca]} æ Á æ) åÁn} çā[}{ ^} œdÁnçān, Á[-Áo@ āÁā] åãçãa ĕdÁæ) åÁ& { ĕ|ææãn, Án} çā[}{ ^} œdÁā[]æ&o ÉÁæe Áæ]] |ã&æà|nĚÁ OFFCQP`*@ÁÖ^ç^|[]{ ^}cÁÚæ&^|•ÁFËHÁ{ æÂà^Áå^ç^|[]^åÁ, ão@AÁc@AÔ[`}c`q•Áb`¦ã*åã&cã[}Á]¦ã[¦Ác[Á a) } ^¢æða } Áa Éða @£Ác@ ^ Á, ða Áa A Á' ^ `ða A Ád Áa Ád Áa Ád Ád ÁÜFË Á œð áæða Ác@ (* @ÁÓÔBÜ EÓQ Á anêåããã}}Ē\$ne|Á,ãããæã;}Á,^æ•*¦^•Á\$ne^};Gãã\åÁ;¦Á^•ãå^}@ãahÁsoç^|[]{^}oÁs,Áso@ÁQÚTÞÖÁ,ã|Áso^Áso}]|ã\åÁs∫Á $\ddot{O}^{\circ}_{\circ} = \ddot{A} + \ddot{A} +$ Ö^ç^|[]{ ^}œ^Úæ&^|•Á@æ•Áà^^}Áāj&|`å^åÁājÁc@Aæj械•ãrÈAOEc@`*@Ác@AÞ[*`^¦æÁÚ¦[]^¦æð•Á;ā|Áà^Á]¦^:[}^åÁÜFËPÁ[¦Á&[}•ãœ^}&^Á¸ãœ∮*`;;[jĕ}åã;*Á;[}ã;*Áæ)åÁæ)åÁ•^•ÊA;[Áå^ç^|[]{^}œÁá,;[][•^åÁ æ) å Áo@ Á] æ &^|• Áj ā|Á&[} œ] ˇ^Á[Áà^Á •^åÁ[¦Áæ&&^••Á[}|^ÉØ[¦Ác@•^Á^æ•[]•Éå^ç^|[]{ ^}œ´•^Á

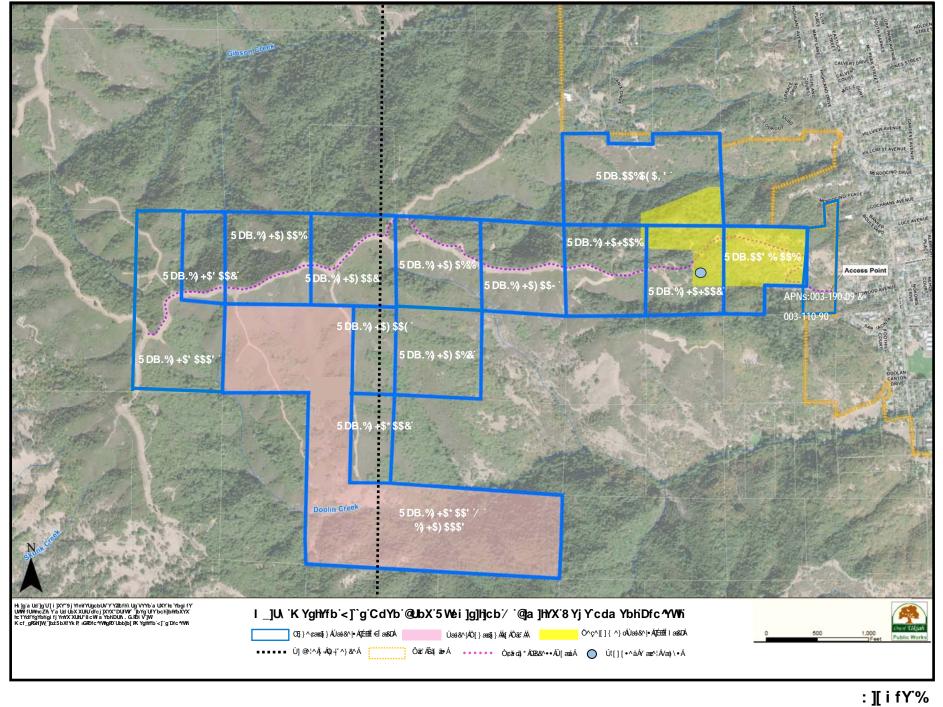
OÞØÜŒÙVÜWÔVWÜÒÁOT ÚÜUXÒT ÒÞVÙÁ

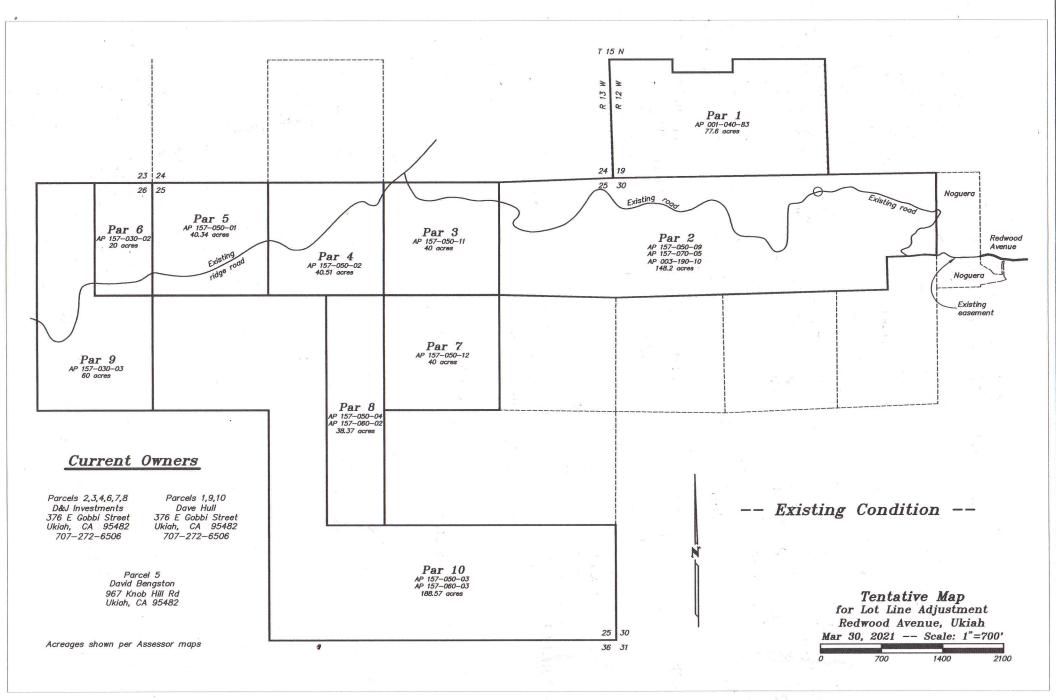
CḤ Áṭ } • āc Á&[{ { ` } āc Áx^, ^ lÁx^ • c^{ Á āc@Áx ÁQ | åā, * Áxæ) \ Áxe) å Áx^, ^ lÁā, ^ ÉÁxæ@ lÁc@e) ÁxæÁ/ æ&@Áð | å ÉÁ, āļÁ à Á&[} • d` &c^ å Áṭ lÁåā &@æ* ā, * Á¸ æ• c^, ææ* lÁÇ~+; * ^ } cÁṭ) | DÁṭ ÁæÆ* ^, ^ lÁ; æā, ÁææÁc@ Ár } å Áṭ -ÁÜ^å¸ [[å Á Cæ;^ } ` ^ ÈÚ | [] [• ^ å ÁÖ^ç^| [] { ^ } cÁÚæ & ^ | • ÁF ÉHÁx Á Á &æ* å Á¸ āc@ā, Ác@ ÁN āæ@ÁX æ A^ ÂÙæ) āzæā; } ÁÖā dæ AA ÇVX ÙÖDÁ* ^ | çæx^Áæ ^ 棸 @ār ÁÚ | [] [• ^ å ÁÖ^ç^| [] { ^ } cÁÚæ & ^ | • Á É Áæ ^ Á; [dÈÁP [¸ ^ c^ | É* ^ ¸ ^ | Á* ^ | çæx^Á ¸ [` | å Ás^Á; | çæå ^ å Áṭ Ác@ ÁÖ^ç^| [] { ^ } cÁÚæ & ^ | • Ás Ác@ ÁÖāc Áṭ | Á; æ & ^ | • Ás [cœ́, āc@; Ácæ å Ás [cœ́, āc@; Ácæ å Ás] cǽ, āc@; Ácæ å Ás [cǽ, āc@; Ácæ å Ás] -Ás@ ÁNXÙÖEÁ

Ò|^&dæ&fx cqāaan • Á, [` |aÁa^Ár¢c^) a^aÁ+[{ ÁP^|^} +ĐÙ^a, [[åÁOōç^Áq[Á]+[çãa^Ár|^&dæ&fx^+; çæ&rÉPòæe^{ ^} o Á ; ā|Áa^Ár^` ā^aÁq[¦Áæq|Á cqāac Áæ&qāaan • Ág Ár@Á[æa, æÁæq aÁq) áfq } de&r|• Áæe Á; ^&^••æfx^k[Á]+[çãa^Ár]^&dæ&A •^¦çã&rÈAV@Ár|^&dæ&f*• c^{ Á, ā|Áa^Ág Áæ&&[¦åæq &rÁ, ão@ÁÙcæerÁæq åÁO^år|æþÁ'^` ãr{ ^} o ÈAW][} Á æg)}^¢ææq } ÊÉr@ÁÔāc Á, ā|Á, } Áæg åÁ, æg cæg Ár|^&dæ&A cqāac Ág +æ•d`&c ¦^Ác@[`* @ÁæÁ cqāac Áræ•^{ ^} dÉA

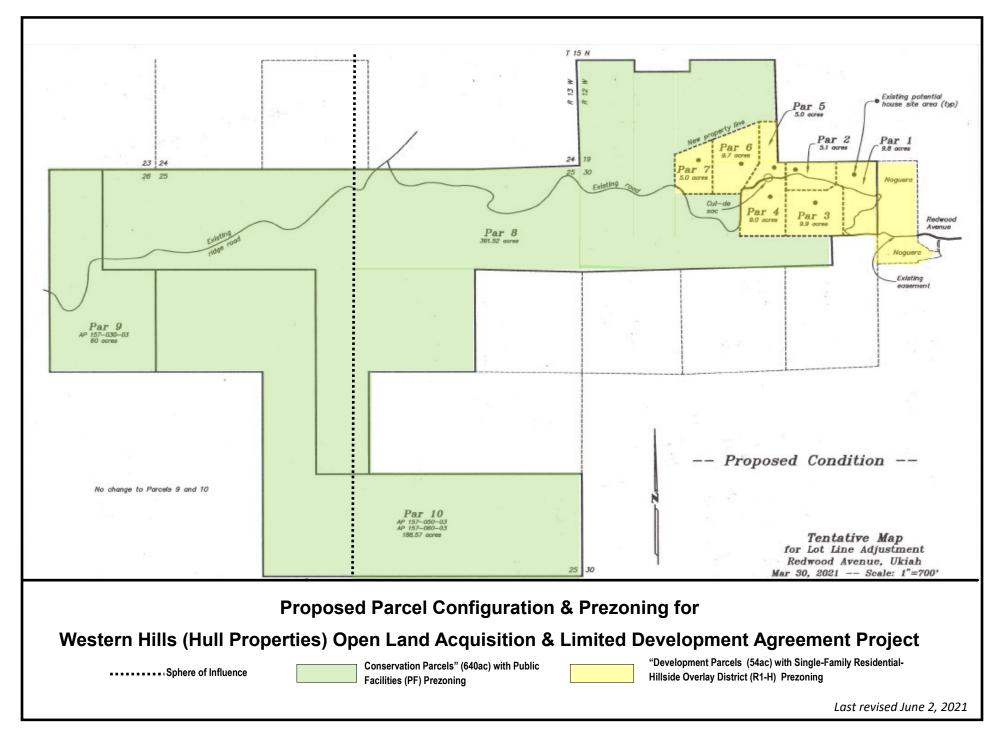
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\boxtimes	Õ^[[*^ÁÐÁÙ[ã;•ÁÁ		Õ¦^^}@(~^^ÁÕæÁÒ{ã•ã[}•Á	\boxtimes	Pæælå•ÁBÁPæælå[ˇ•ÁTæe\¦ãæ;•Á
\boxtimes	P^å¦[[*^£Y/æe^\¦ÁÛ`æ ãcÂ		Šæ); å Á (Tāj^¦æ ÁÜ^•[ˇ¦&^•Á
\boxtimes	Þ[ã^Á		Ú[]ˇ æaā[}ÁaÁP[ˇ∙ã]*ÁÁ		Úˇà &&ÁÙ^¦ç&&^∙Á
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\boxtimes	Wajaan • Đùn¦çax Áû • e { • Á	\boxtimes	Y ãå-ã^Á	\boxtimes	Tæ)åæq[¦^Án26]åā]*•Án,√Á Ùā'}ã&æ)&^Á

Ú![b/8oÁ8[{][}^}o Á[8] å å *Ác@Áæ&``ã ãã]} ÊÉæ}}^¢æā]} ^¢æā]} }^¢æā]} } ¢æā]} } ¢æā]} /¢æā]} /¢æā]

c@ ÁÔãĉ q ÁÜFËPÁ[} ā * Áãã dã&dÃP[, ^ç^|ÁÁP*||ÁÚ||]^ cã • Áã Ás@ [•ā] * Ág Á^~ ǎā^Ás@ Áā] * |^Ëæḍ ā ÁQ { ^• Á d Áà^Á&[} • d * &c^å Áq ÁÜFËPÁ œa} å æbå • Áà Áā) &| åāj * Ác@ { Áā Ás@ ÁÖ & &lææāj } Á; ÁÔ[ç^} æ) • ÉÔ[} å ããj } • ÉÁ æ) å ÁÜ^• d 38cāj } • ÁÇÔÔBÜ • DÁ-[¦ÁÖ^ç^|[] { ^} cÁÚæ& ^|• ÁFË ÉÁQ Áæå å ããj } ÉÁæ¢ Q * * @Á) [cÁ|^ * ã ^à åÉóc@ Á { ãã æaj } Á; ^æ* ; ^• Á&[} cæāj ^å Á; ãc@j Ác@ ÁOÙT ÞÖÁ; ¦Á^• ãā^} cãæþÁå^ç^|[] { ^} cÁ; āļÁæþ [Áà^Áāj &| ča/Áāj Á c@ ÁÔÔBÜ • ÉÁ

Ü^*æå|^••Æ4; | Ác@Á] ` |] [•^•Á[-Ác@áÁÔÒÛ CEÁæ) æf •ã ÉÁãÁã Áæ• • ` { ^åÁc@æÁc@Áå^ç^|[] { ^} cÁ[-Áæ|Á
Ö^ç^|[] { ^} cÁÚæ&8^|•Á¸ ā|Á[&& | EÁCEÇQ * *@Ác@ÁÞ[* *^!æÁÚ![] ^!æð•Á¸ ā|Áà^Á] !^:[} ^åÁÜFËÞÁ; |Á
&[}•ã c^}&î Á¸ ãc@Á• ` | | [` } åā * Á:[}ā * Áæ) åÁ|æ) åÁ * •^•Êóc@^Áæb^Á}[cÁā &| *å^åÁā Ác@ÁÖ^ç^|[] { ^} cÁ
CE |^^{ ^} cÁæ) åÁ[Æ6^ç^|[] { ^} cÁæ Á; [] [•^åLÁc@Á,æ&8^|•Á¸ ā|Æ6] } cā `^Æ6 Á; [Æ6^ć*•Á; [cÁa,æ] Å; | ÉÁcØ*Á; [Áa,æ] Å; | ÉÁcØ*Á; | Áæ,æ] } eÆ6@•^Á; [cÁa,æ] &| *åæ,æ] * æ6 Å; | Áæ,æ] * æ6 Å; | Áæ,æ] * æ6 Å; | cÁa,æ] &| *åæ,æ] * æ6 Å; | cÁa,æ] &| *åæ,æ] * æ6 Å; | cÁa,æ] &| *åæ,æ] &| *åæ,æ

OE[Áˇcˇl^Á^•ãā^}cãæd/Éa^ç^[[]{^}c∮[ˇlå.Ás^Áse)æd^:^å.Áp}&dÁ;}kēdÁ¦[b/&cÁp^c/lÁsæeāA[lÁs[}•ãrc^}& & Ágædéa)å.Á *•^Áj[|a&a³•LÁse)åÁj[ˇlå.Ás^Árˇàb/b&cÁgÁsār&l^cāp}æd^Áse)å.Ár}çāl[}{ ^}cædÁl^cpàr,Ár.Ác@ālÁāpåãgāsǎrædÁse)å.Á & ¼ [ˈææāç^Ár}çāl[}{ ^}cædÁs[]æ&c•ÉaseÁse]]|a&æa)|^ÁÇãc@Ác@Ár¢&^]cāp}Ág.Ása^Éað@Ás^cp^[]{ ^}cDÉA

Óæ•^åÁ`][}Ác@^Áæ);æ|`•ã·Á&[}œa];^åÁ¸ão@);Ác@àÁQ;ãoãæ;ÁQ;ãoãæ;ÁÜc`å°Áæ);åÁTãoãtæc^åÁÞ^*æaãç^ÁÖ^&|æ±æaã[}ÊÁæ;|Á][c^}cãæ;4Áī]æ&o•Á^•`|cā;*Á;[{Ác@^ÁÚ;[][•^åÁÚ;[b^&cÁ;[`|åÁs^Á;^••Ác@æ);Á;ã;}ãa&æ);cÁ¸ão@Ás;&[;][¦æaã[}Á [-Á;ãoãtæaã[}ÈÁ

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Í DchYbhjU`miG][b]ZWUbhi=a dUWÎ Áā Áæ]] ¦ [] ¦ãæc ÁāÁœ¦ ^Áa Á`à•æa; ŒæțÁ°çãå^}& ^ÁœÁæáæ) Á°~^&cÁ; æ Áà^Á •∄}ããæa; dŽGÁœ¦ ^Áæò^Á;}^Á; ¦Á; [¦^Ánú/[c^}œá#)^ÁÙ∄}ããæa; cÁQ]æ&chÁ°}dã∿∮@}ÁœÁå^c°¦{ã;æaã}Áā;Á {æå^Éæ;ÀÒÜÄāÁ^` ã^åÉÁ

Í @Ygg 'H\ Ub 'G][b]ZWUbhi=a dUWĥ Áæ]] |ð\•Á, @\^Ás@ ÁÚ¦[b\&oÁ, [`|åÁ,[oÁ^•`|oÁş ÁæÁð; ð &æÁð; oÁ\~^&oÁgð≥ ÈÉÁ c@ ÁÚ¦[b\&oÁsī]æ&oÁ, [`|åÁs^Á\••Ás@æ)Áð; ãã&æ; oÁ, ãæ②; oÁs@ Á,^^åÁs Æs, &[;][¦ææ^Á; ããææð; bÉÁ

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à DÙ à • œa) œad ^Ásae(æ * ^Á•&^) & & ^Á•[` & ^ £ág & ` åā * £ás ` ó\$ [c ā æ * åÁq £Ád^^• £Á & \ Á ` œ&]]ā * • £Áæ) àÁ@ē q æ KÁà ăáā * • Á ¸ ão@a,Áæ Ácæ * Á & } æ kÁæā @ æ ŇÁ				\boxtimes
&DQAÁ;[}`làæjã^åÅe&^ææÉn*à•œæjœæd;^Áå^*læå^Ác@Án¢ãræjä*çã*æÁ%@æbæ&c%lÁ;!Á*æjáfá;Á;Áj*àjæÁçã*,•Á;Ác@ÁnãrÁæjååÁærÁ •`! [`}åã;*ÑÁQĴ*àjæÁçã*,•Áæb^Ác@,•Ád@æbæbA^Án¢j^kjā}&nåA -{[{Áj*àjæjÁæ&&^•æ}hÁæjAæ};•Áæb^Ádj[ajdæÁgÁ;[b/&ofæjÁajÁæjÁ *làæjã^åÅæb^ææÄ,[`jäÁc@Áj![b/&ofæJ}];ææÁæjj]æææjhÁ :[}aj*ÁæjåÁ;c@!Á^*;]ææíj}•Á;[ç^l}āj*Áx&}æÆÁ*æářNÁ				
åDÔ¦^æe^ÁæÁ}^^¸Á•[ˇ¦&^Á[-Á•ˇà•œe) cãæbÁ ā*@éÁ[!Á* æb^Á; @ã&@ ¸[ˇ āÁæåç^¦•^ ^Áæ-^&óÁsæéÁ;!Á;ā*@cā; ^Áçā*¸•ÁājÁs@Áæb-^æñÁ			\boxtimes	

G][b]Z]WUbWY7f]HYf]U. ÁKOE • c@ cãskát] æsc• Á [ˈ|å ká ^Á ã } ããsæ) c/s kæ ÁÚ![b * scÁ ^ • * | c * å ký ká@ Á à • d * scát } Á [Áæ) ^Á & ^ } ãská æ Áú] | b * scÁ ^ • * | c * å ký ká@ Á à • d * scát } Á [Áæ) ^Á & ^ } ãská æ cæ Á] ^ } Át Ác@ Á * à lastea æ ^ Át Ár å } ãasæ) c/• & ^ } ãská ^ • [* | & ^ • Á ác@ Áæ å ^ • ã } æ ^ å Á

[ˇdạī^åÁaī,Ác@ ÁÔāĉq•ÁZ[}ā;*ÁU¦åaī;æ;&^ÁQNÔÔÁÙ^&caī;}ÁJ€FÌDÉÄÜFÁ:[}ā;*Á&[}cæañ;•Áå^ç^|[]{^}cÁ • œa) åætå• Áā; &|` åā; * ÁæÁHEË; [oÁ@ āt @oÁ|ā; ãææāi; } Á; ¦Á•ā; * |^ Ëæ; ālî Á@ { ^ ÞÁV@ārÁ• &æ;^Á[-Á] [o^} cãæþÁ å^ç^|[]{ ^}oÁ, [ˇ|åÁà^Á+ā[ābæÁq[Á'^•ãå^}cãæþÁå^ç^|[]{ ^}oÁājÁc@Áæb^æb^æ•oÁ[Æc@Á+ão°ÈÁY @āpÁc@Á ¸[ˇ|å/Ŋ[ơ4ˇà•œa);œãe|↑Áå^*¦æå^Áæ4^&^}&&Açã;œaÁ[¦Áo@Áçã ざa)Á&@edæ&c^¦Á;Áo@Ácd^æáÉæeÁñóÃáÁæe•ॉ{^åÁ c@^Á, [ˇ|åÁà^Á&[}•dˇ&c^åÁ, ãc@a,Ác@Á^¢ã;cã,*Á@,ઁ•^Á•ãc^•Áæ,åÁ;[cÁ^čˇã^ÁæÁ•čà•cæ;cãæ;Áæ;[ˇ]cÁ;-Á ç^*^œaāi}Á^{ [çædeZÁQ)Áæååãaāi}ÊA;}^Á;^Á;^Áœ%Áā;e^}cāi}•Á;Áœ%ÁPÁÖã;dæ%óÆá;Á;¦^•^\;ç^Á;`e•æa}åã;*Á }æë;|æ|A|@•a&æ|A^æë;|^•EA`&@\$æ•A@A@a@A@a@•o&sk.^•oAA^\$æA@A|EA}æë;|æ|A|&&A^c&s[]]a]*•EA æ#s|&k^oA\$a^|o•EA ^c&BÉÁOE||[, āj*Ác@^Áå^ç^|[]{ ^}cÁ[,Á@}{ ^•Á[}Ác@^Á^æ•c^¦}{ [•cÁ][¦cā[}Á;Ác@^Á•ãx^ÉÁ,@ǎp^Áj¦^ç^}cāj*Á ' | ^ • aa ^ | caad Aa ^ c ^ | [] { ^ } c 4 [] Ac @ A' ^ { aca a a * Ai | € Acas ^ • É a a | Ar } • * | ^ Ai | a ^ C | [] { ^ } c 4 [acc ^ |] * Ai ^ C | [] { ^ } c 4 [acc ^ |] * Ai ^ C | [] { ^ } c 4 [acc ^ |] * Ai ^ C | [] { ^ } c 4 [acc ^ |] * Ai ^ C | [] { ^ } c 4 [acc ^ |] * Ai ^ C | [] { ^ } c 4 [acc ^ |] * Ai ^ C | [] { ^ } c 4 [acc ^ |] * Ai ^ C | [] * Ai ^ C |]¦^ç^}oÁ•]¦æ |Áæ}åÁçãaˇæþÁå^*¦æåææãa}Á、ão@ãÁc@ÁY^•ơ^¦}ÁPã4|•ÈÁV@Áæ••ˇ{^åÁ|[、Ëå^}•ãôÁ å^ç^|[]{ ^} œ4 æ60^\}Á6a Á8[}•ãrc^}oÁæ) åÁ8[}dãačc^•Á4[Áo@Alčke(æ|Á4[}+Á&@æbæ8c^\Á;Áo@AN\ãæ@A Xæ||^^Áæ); åÁ&[}•ã; c^}cÁ; ãc@Á];[][•^åÁÔãĉÁ:[}ā; *Á-[¦Ác@^Á•ãc^•ÉÁQ;Áæååããā;}ÉÁ~č;\^Á¦^•ãå^}cãæþÁ å^ç^|[]{^}, œ4\^} ÁÚæ; &^|• Á Ħ ÞÁ [* lå Áà^Á* à lơ &o4[Áãã &l^æ] æ4^Áæ) å Á^} çã[}{ ^} œ4\^^çã, ÊÆæ) å Áà^Á $|A^*|^2$ $|A^*$ ^ • cæà | ã @ å Áq Áj ¦ [c^ &cÁ) æc ¦ æ Á ^ æc ¦ ^ • Áæ) å Á • &^ } æ Á¦ ^ • [` ¦ &^ • Á ¸ ãc@) Ác@ ÁY ^ • c^ ¦ } ÁP ã| • ÈÁCEcQ ` * @Á Ö^ç^|[]{^}œ\&^|•ÁFËHÁ;æêÁà^Áå^ç^|[]^åÁ,ão@a,Áo@ÁÔ[`}c`q•Áŏ¦ãaå&oāa}Á;¦ā;¦Áq;Áæa}}^¢ææāa}Áà^Ë ¦ãt @£Ác@^Á, ã|Áà^Á¦^``ã^åÁq Áà^Áå^ç^|[]^åÁq ÁÜFËPÁ•œa;åæåå•Ác@[`*@ÁÖÖBÜ•EÄQAæååããã;}EÄæ#A {ãcatacean[}Á{^ace`¦^∙Áãa^}cãaanàÁ-[¦Á¦^∙ãa^}cãce†Áå^ç^|[]{^}cÁajÁc@^ÁQÙTÞÖÁ¸ã∥Áà^Áæ-]]|anàÁq[Á Ö^ç^|[]{ ^}oÁÚæt&^|•ÁFËHEÁV@\^-{\^Eas@AÁ|[o^}@aædÁ^•ãa^}@aædÁs^ç^|[]{ ^}oÁæe•[&ãæc^åÁ,ão@Á@AÚ\[b^&cÁ

\(\text{\text{\alpha}}\) \(\delta \text{\alpha} \) \(\delta \text{\alpha} \text{\alpha} \) \(\delta \text{\alpha} \text{\alpha} \) \(\delta \text{\alpha} \text{\alpha} \text{\alpha} \text{\alpha} \) \(\delta \text{\alpha} \text{\alpha}

. Ø[¦Áx@Áæ{¦^{ ^} œॉ¡}^åÁ^æ•[}•ÉÁx@ÁÚ¦[b^8xÁ¸[ˇ|åÁ¸[ơÁ^•ˇ|ơਓ¾ÁæÁ*ã*}ãææ;dÆ[]æ&dÁ[Á*&^}ã&ææ£Á }[¦Áx@Áçã~æÁ&æædæ&c^¦Á;Áx@ÁãrÁ;ÍÁæb^æÉÁQ]æ&o•Á¸[ˇ|åÁà^ÁYgg¨H\Ub˙g][b]ZWUbHÁ

&" 5[f]WihifYUbX: cfYglfmFYgcifWYg"

5; F=71 @H1 F9'5B8': CF9GHFMF9GC1 F79G'\[\text{Q}\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\					
Y [ˇ åÁs@Á¸¦[b/8dAÁ	Ú[c^}cãe# ^Á Ùā*}ãã&æ)cÁ Q;]æ&cÁ	Š^••ÁV@æ)Á Ùā*}ãa3&æ)oÁ ¸ão@Á Tãoā*æaā[}Á	Š^••Á V@a)Á Ùa}}ãa&a)oÁ Q:]æ&oÁ	Þ[ÁQ]æ&oÁ	
adDÍO[}ç^\o^Uiā; ^ÁOæ+{ aa}åÉAW,ã *^ÁOæ+{ aa}åÉA, ÁOæ+{ aa}åÉA, ÁOæ+{ aa}åÁ, Á Ùcaæ^,ãā^ÁQ;][caa}&^ÁQŒ+{ aa}åDÉAæ+Á•Q;}Á[}Ác@-Á(aa}•Á] ^]ad^âÁ]* •*aa}o^QiÁOæ+{ aa}åÁT aa}]ā;*Áæ;åÁT[}āf ā;*Á Ú![* aæ Á[-Ác@-ÁÔæ+A; }äæAÜ^•[* &^•ÁOE*^}&°ÉA;qiÁ}[}Ë aæ a&* c' aæ Á•^ÑWÁ		∏Á	⊠Á	∏Á	
à DÁÔ[}- -1880Á, ão @Á^¢ã cā]*Á:[}ā]*Á-[¦Áæť¦ā&` čˈlæ‡Á`•^ÉĀ[¦ÁæÁ Yā ãæ(•[}Á0580Á%[}dæ&n0ÑÁ	∏Á	□Á	⊠Á	∏Á	
80100[}- 3804) ār@\$^¢ār@]*Á[}ā]*Á[ĒK /\$&æ*•^Á^:[}ā]*Á;-ĒY /^•OÁ æ]åÁqæ-Ás^-A¸^åÁş-ÁJ'à 38ÁU^•[" 80*AÚ \$^AK-86]}ÁFGGGEÇ DDÉA æ]åÁqæ-Ás^-A¸^åÁs}-ÁJ'à 38ÁU^•[" 80*AÚ \$^AK-86]}Á æ]åÁqæ-Ás^-A¸^åÁs^-ÁÚ'à 38ÁU^•[" 80*AÚ \$ I G DEK, Ása;à^ æ]åÁ[}^åÁ3] à^ æ]åÁJ!]å*86a[}Áqæ-Ás^-A¸^åÁ à^ÄÖ[ç^ }{ ^} OÖ[å^Á^86a]}ÁFFEIÇDDÑÁ		∏Á	⊠Á	∏Á	
å DÄÜ^• ĭ oÁn, Ás@Á[••Á; ⊹•oÁæ) åÁ;¦Á&[}ç^!•Æ;}Á;Á(¦^•oÁæ) åÁ ₫Á;[}Ё;¦^•oÁ•^ÑÁ	∏Á	∏Á	⊠Á	∏Á	
^ DÍOD, c [ç^Áī, c@ Á&@ + ^ • Áā, Á@ Á^@ Á * ¢ā cā * Á^ } çā [} { ^ } cÁ, @ & @ å ~ Áī, Áœ āÁ [& æ ā] } Áī, lÁ, æ ē ^ Ē& [` åÁ ^ • ` óĀ, Á& [} ç^ ! • ā] } Áī, -Á Ø æ { aa, å ĒĀ, Á, [} Ēæ ! ā& c ' æ Á • ^ Ā, ¦ Æ [} ç^ ! • ā] } Á, -Á [! ^ • oĀ, å Á ē, Ā, [] Ē [! ^ • oĀ • ^ ÑÁ	'	□Á	⊠Á	∏Á	

Gj[bjZwUbww:7f]hhf]u.Áv@ÁÚ¦[][•^åÁÚ¦[b\&oÁ;[ˇ|åÁ@æç^ÁæÁ][c^}@æh|^Á•ã}ãææ)oÁā[]æ&oÁ[}Á
æť¦æ;'[cˇ|æh4^•[ˇ|&^•ÁāÁāÁ;[ˇ|åÁ&]}ç^¦oÁj¦ā;^Áæd{ |æþåÁqíÁæÁ}[}Ëæť¦æ;'[cˇ|æh4´•^ÉÁ&]}-AæoÁ;āœ∮æÁ
Yāļāæ;•[}ÁOæoÁ&[}dæ&oÉÄ;|Ååã;'ˇ]oÁæÁçãæà|^Áæò;åÁ[&æh|^Áā[][¦æò;oÁæť¦æ;'cˇ|æh4´•^ÈÁv@ÁÚ¦[b\&oÁ;[ˇ|åÁ
@æç^ÁæÁ[[c^}@æh|^Á•ã}ãæ&æòóÁā]]æ&oÁ[}Á[¦^•d^Ái^•[ˇ|&^•ÁāÁāó][ˇ|åÁ\^•ˇ|oÁā;Ác@Á[••ÉÁ\^:[}ā;*Á[¦Á
&[}ç^¦•ā[}Á;-Á[¦^•dæò;åÁ[ÁæÁ;[}Ë[¦^•oÁ•^ÈÁ\

V[åæê£A(*&@A(-Ác@ Ác&caç^Ác± lax |c' ladÁa) åÁB, Ác@ ÁNXOEÚÁ| |a) } } * Ácd^ acÁa Á[&æc°åÁ] } Ác@ Áçæ|^^Á|[[lÁ a) åÁ|[, ^!Á^|^çæa] } • Áæ|[} * Ác@ ÁÜ* • • ãæ) ÁÜãç^!Á•^ • c^{ EÀU} | ^ ÁcæÁ] ãc°åÁ] ^!&^} æt ^Á[-Ác@ Áçæ|^^q Á æt !ax |c' ladÁæ) å• Ácd^Á& !!^} d^Á! | c^&c°åÁ } å^!ÁY ålãæ(•[} ÁO&óŒ !ax |c' ladÁÚ!^•^!c^Á&[} dæ&c•EÁV@Á

Ô[`} ĈÁ[-ÁT^}å[&ã][Á&[}œã]•Ác@^^Á:[}ā]*Áåãdã&oÁ-{¦Á懦æ%|覿þÁ`•^•ÞÁŒª¦æ%|覿þÁÇŒËÕŒÁÜæ)*^|æ}åÁÇÜËŠŒÁ[¦ÁØ[¦^•¢æ)åÁQŒËŒÁP[¸^ç^¦ÉÁœ%|^Áæ}^Á•[{ ^Áæ&æãç^Á懦æ%|覿þÁ|æ}å•Áã,Á
`}ā¸&[¦][¦æe^åÁT^}å[&ã][ÁÔ[`}ĉÁœæÁ&`;|^}d^ÁB,Á]¦[å`&æã]}ÁœæÁæÅ^Á}[œÁ[}^AåÁ[¦Á懦æ%]ċ¦æþÁ;¦Á
;}a)*^|æ)åÁ•^•ÈÓŒ&&[¦åä]*ÁţÁœÆÁ©[`}ċæ¢ÁÛ]àa,åÄÖŪJÁ°•¢\{ÉÁœ¦^Áæ¢^Á;[Á⁄āæ;•[}ÁŒ&ØÁ];dæ&æÁ ¸ãœā,ÁœÁÚ|[b/&æÁæřÉÁ

' " 5]f Ei Մ]mi

5 = F`E I 5 @ H-MT/ÁÁY @ ¦^Ánag canajcaà ^ÉÁn@ Árā }ãa3kaa) & Á& ão ¦ãadÁ • cacaà ão @ å Án Ár@ Ánaj a3kacaà ^Ánaáá Á ° capán Á, ca) e ≛ ^{ ^} o Ánaía da3ko Á, lÁnaáá À][ˈcāṭ }Áx[}d[Ánaía da3ko Á, æ Án∧Á^ a^àá Ž][}Án[Á, æà ^Án@ Án[[¸ā] * Án ^c \{ ā] ananā[} • ÉÁ					
Y [* å/sc@-Áj.: b/ &dxfÁ	Ú[c^}cæd ^Á Ùã}}ãã&eo}cÁ Q;]æ&cÁ	Š^••ÁV@æ)Á Ùāt}ãā&æ)oÁ ,ão@Á Tãuātæaā[}Á	Š^••Áv@ayÁ Ùã*}ãã8æyoÁ Q;]æ&oÁ		
a ĐÁC [} + lã Co Á, lão Đất kất à • d * 8 có ất] ^{ ^} cae đặ } Át - Ás @ Ás dỷ] lã Sea à ^Ás sãi Á ** zejác Á, að) ÑÁ	□Á	⊠Á	∏Á	∏Á	
à DÁÜ^• ` cóāg Áradé&` { ` aneāg^ ^ ÁsQ[} • āā^ anà ^ Áj ^ cóāg & ^ an ^ Áj — Áraj ^ Á & lão lāndj [`cæ} có4[Á @ & @ A@ Áj [b/ & có4 * 4] } Ær Áj [} Eneranaj { ^} có `} å^ Áan) Áanj a& anà ^ Á - ^ å^ anh Áj kó - cone^ Áanj à að } có - ansi Á ` `anjac Á • can) å and å Anja		⊠Á	ΠÁ	ΠÁ	
8DÁ Ò¢][•^Á•^}•ãããç^Á¦^&^] ₫¦•Á đÁ•ˇà•œa) αãα∮Á][∥ˇœa) σÁ 8[}&^}dæaã[}•ÑÁÁ	∏Á	⊠Á	∏Á	∏Á	
å DÁÜ^• ˇ cớa) Áṇ c@ \ Á^{ ã•ãṇ }•Á♀ ˇ & @Áæ Ác@ • ^Á^æåā; *Áṭ Áṭ å[\• DÁ æåç^\ • ^ ^Áæ-^8cā; *ÁæÁ ˇ à• cæ) cãæÁ, ˇ { à^\ Á; -Á; ^[] ^ÑÁ	□Á	⊠Á	∏Á	∏Á	

9bj]fcba YbHJ GYH]b[.ÁV @ÁÚ![b\8cÁā Á[&æ\åÁ, āc@, Ác@ ÁÞ[!c@ÁÔ[æ cÁCā ÁÓæ ā, ÁÇÞÔŒÉQÉ @&@Á ā, &\\$ å^•ÁÖ\ AÞ[!c@ÁP { à[|ådÉAV! ā, āc ÉAT ^} å[&ā, [Éæ+ åÁ, [!c@!] ÁÙ] } [{ æÁÔ[` } cã • Éæ+ åÁæ Á } å^! Ác@ Á b` !ã åæcā[} Á, -Ác@ ÁT ^} å[&ā, [ÁO] ` } c ÁCā ÁÛ ` ææ` ÁT æ) æ* ^{ ^} cÃOē dæcÁÇT ÔCÊ T ÖDÉAV @Áæ+ æ# Á&[aæ\Á ā; Á&[} • ãa^! AÁE] • ãa^! ^ åÁE] * áa^! ^ åáT ^ åãc^! |æ| ^ áAE] * ác AÁE] * ác A

. Ü^* * |æaā|}ÁrÁ;Áx@^ÁTÔOEÛTÖÁ&[}œaē}•Áx@^^Á*|^•Á^|æae^åÁq;Áx@^Á&[}d[|Á;Á-**ãaāç^Áå°•dxÁÁ

- •ÁÜ | ^ÁFË €€ÇæÐÁ | [@ãa ãæ Áæ&cãç ãæð Ás@ææÁ%&æ ^Áşi b' | Ê£å ^ d ã! ^ } dÊÁ `ãa æ} & ^Á; | Áæð } [^æa} & ^Á; Áæð } [^æa} & ^Á; Áæð } [^æa & ^Á; Áæð }] [^æa & ^Á; Áæð } * ^ | Áæð & Á; Áæð & Á; Ææð & Ææð & Á; Ææð & Ææð
- •Áܡ |^ÁrË HEQƏĐÁN; | @ààār Áx8kaq̃aãð •Á, @āk@ÁNÈÈÈ æê Áæd| [¸Á;}}^&^••æb^Áæé [ˇ}orÁ; -Á;æbcākˇ |ææ^Á {ææc^¦ÁqíÁa^&[{^Áæanàa[¦}^ÈÈËÁ Á
 - •Áܡ|^ÁTË HEÇADÁ^ˇˇã^•Ás@ædÄÈÈ^æe[}æà|^Áj¦^&æĕdã}}•Ás@ædÁà^Áæà^}Ás[Áj¦^ç^}dÁ;ææ^Á {æec^¦Á-;[{Áà^&[{ã}*Áæãà[;}^őÄÁ

{ æec^¦A-¦[{ Aà^&[{ ā}*Aedāà[¦}^ō AA Á V@ÁTÔOEÛTÖÁ;¦[çãå^•Ás@Á[||[¸ā]*Á-ā*}ã-ā&æ)&^Ás@^•@[|å•Á;[¦Ás[]•d`&cā[}Á^{{ ã••ā[}•KÁ

HÉÀÌ GÁ![ˇ}å•Á,^¦ÁåæÂ,Á,ÁÚT ^{F€}ÁQ æbæð. |ææ^Á; ææz^Í, ææzð. |Á^••Ás@æ)ÁF€Á; æð. [}•Ás,Áã^DÁ

| EÁ Í I Á [ˇ } å• Á ^ ¦ Áà æð Á; ~ÁÚT ^{cá} [[] Çæði à [¦ } ^ Á; æð cáð æð þæð Á; æð þ. Á æð Á; æð þ. Á æð Á; æð þ. Á æð í æð þ. Á æð Á; æð Á;

Í ÈÁ Ó^• cÁT æ) æt ^{ ^} cÁÚ¦æ&cã&^• Á[¦ÁØ**ãããç^ÁÖ*• cÁ ÁÚT ^{F€}Áæ) å ÁÚT ^{GĚ}Á

Á

8]gW gg]cb.ÁfU!XŁ @/gg i h Ub g][b]ZWUbh]a dUWi k]h `a]h][Uh]cb `]bWcfdcfUhYX" Q] ¦[ç^{ ^} ó{ ^} ó{ ^A } l æå æ° Ēðā • æaļæā } Å[-Á cāāāð • Ēðæ) åÁ&[} • d `&cā[} Á[-Ác@ Á ææ ¦Áæa) \• Ēðæ• Á ^||Áæ• Á č ¦^Á] [e' } cāæļÁ &[} • d `&cā[} Á[-Á• ā] * |^ Ēæ• á f Á@ { ^• Á8[} • d `&cā[} Á[-Á• ā] * |^ Ēæ• á f Á@ { ^• Á8[} • d `&cā[} Á] æ&o• Áç ÁæāA` æāē ĒðŪ@ ! dĒv ! { Á8[} • d `&cā[} Á !> d `&cā[} Á | ód `&cā[} Á [; aåA^• • ioÁ! [{ Á !æåā ¾ Ēå^* * cæā[} Á^{ [; cæþĒá* * } &@] * ĒĀ æē ¾ ĒĀ * [] ^ !ææ³ ¾ Áf -Á8[} • d `&cā[} Á [!\ ^! • ĒĀ æē ¾ ĒĀ * Āæ• • [&āææ* åÁ āc@Á8[} • d `&cā[} Á [!\ ^! • ĒĀ @ Áæ A * æē * [&āææ* åÁ āc@Á8[} • d `&cā[} Á [!\ ^! • ĒĀ @ Áæ A * æē * Åæ * [] å fæ fæ A * Æ * A * Æ

V@ÁT ÔŒĴT ÖÁ@æ Á} [ÓÁ^• cæà [ã @ åÁ•^] æææ^Á• ã } ãææ) &^Ác@^• @ |å•Á{ !Á&` { ` |ææã^^Á[] ^!ææã] } æÁ ^{ ã•ã] • ÉÁ @ Á; Ææã / Á; [bì &óæ Á · ` ~æð] æ&æ (ÉÁ) ē Áæá / ÉÁ) • ÉÁ Ææ / Á; [bì &óæ Á · ` ~æð] æÆæ (ÉÁ) ē Áæá / ÉÁ) • ÉÁ Ææ / Á; [bì &óæ Á · Cæ) åæå e ÉÁQ, • chæå ÉÆæÁ] ![bì &oæ Á; åã; ãå ææ / Á; Ææ á;] æÆæ ÉÁ æÁ [] æææ ÉÁ W Æ ÓŒĴT ÖÆĴT ÖÆĴT ÖÆÑ / Ç^|[] ^åÁ Ø Á;] ^!ææã } æÞÁ Ø Ææ / Á; Ææã / Áæð & Áæð / Áæð / Á; Aæð ÆÆÆ / ` |ææã / Áæð & Áæð / Áæð / Á; Áæð / Áæð / Á; Áæð ÆÆÆ / ` |ææã / Áæð / Ææð / Áæð / Áæð / Ææð / Áæð / Áæð / Áæð / Áæð / Ææð / Áæð / Áæð / Ææð / Áæð / Áæð / Ææð / Áæð / Áæð / ÉÁ Ø Ææð / Áæð / Ææð / Áæð / Ææð / Áæð / Ææð / Áæð / Áæð

A]h][Uh]cb AYUgi fYg.

5 E!%'8]YgY'9b[]bYg'Ë'GHJrjcbUfmUbX'DcfHJV'Y'9ei]da YbhUbX'AcV]`Y'J Y\]WYg.`

æÈ OB;^Á•cæaā[}æb;^Á[}•ão^Áað*•^|Á@ÔÁ^}*ā]^•ÁÍ €Á@[¦•^][¸^¦Á[¦Á*¦^ææ*¦ÁQãÈÈÁ|æb*^Á][¸^¦
^}^¦æa[¦•Á[¦Á]`{]•DÁ[¦Áæ)^Á];[]æ}^Á[¦Á;ææ¦æhÁ*æ•Áv}*ā]^•ÁGÍ€Á@[¦•^][¸^¦Á[¦Á*¦^ææ*¦
{æ̂Á^``ã^ÁæÁ,^¦{ãaÁ;[{Ás@AÖã·dã&dÈ

àÈ Ú[¦œà|^Áåā^•^¸ÍÁ][¸^¦^åÁ^` ˇā]{^}oÁo@æÁ(æ`Áà^Á`•^åÁå`¦ā;*Áo@·Áj¦[][•^åÁj¦[b/&oÁæ}^ '^`ˇā^åÁţÁà^Á^*ārc^¦^åÁ¸ão@ÁœAfœæ^ÁÚ[¦œà|^ÁÒ` ˇā]{^}oÁÜ^*ārdæaā;}ÁÚ¦[*¦æ;ÁÇÚÒÜÚD [¦Á;àœágÁ,^¦{}ã•Á¦[{Áo@ÁÖārdā&oÈ 8EÁÚ![1980-Á[8æc^åÁæå1æ&^}cÁ[Á^}•ãtāp^Á^&^]d[!•ÁÇ\$@[[]•É&@ååÁ&æ^Áæ&ãtãtā•É@æ¢c@Á&æ^Áæ&ãtãtā•É@æ¢c@Á&æ^Á -æ&ātātā•É^^}ā[!Áæ&ātātā•Éà`•ā]^••^•Éàà aÁ^•āå^}&^•Éà`*ā]*Áœ¢Á[}•d`8aā}Á, @æ^Á [-ÁœáÁ:[1986Á@æç^ÁœA;[c^}cãæÁ;!Áv¢][•`!^ÁtÁåå•^|Áæca&`|æc^ÉÁ

å ÈÀ P^æç^Ás`c´Ás'& Ásálā *Ásájā *Ásájā Á, ~Ë[æåÁsãð•^|Ár``ā]{^}oÁ;¦Á;c@;¦Ásãð•^|Ár}*ā;^Ásálā; *ÁsÁā;ā *Ásáð•A

([Á^•••Ás@æ)ÃÁ;ãjčo•ÈÁ

à ĐÁ OỀÁ Ś] Tắc ^ ả Án ˇ ¦ ~~ & ^ ĐẾ Ś | ^ • • Án c@ + ¸ ã ^ Án ^ æ ^ å Á¸ ão @Á ˇ ão æà | ^ Ás @ { 38 æ þ Án + Án ‡ PÉ A @ æ þÁ @ æ ç ^ Á æ f [• c ^ å Án] ^ ^ å Án āo Án - Án €Án] @ Á

& BÀ Òạc OÁ; lÁ; oœ lÁ; àæ là pháo œ Aà ^ lÁ; að •] [lơ à Áà Ác & ā * Á; lÁ æ coÁ; [çā * Á · ˇ ā] { ^ } dÉ ^![•ā] Áà Á, æ lÉ LÁ; oœ lÁ; ^ að • Á; d Á; æ lá d ^ o A @ A @ A & A ![{] d Á ^ { [ç ^ à EÁ

å EÁ CĒ] @ \$\defA \$\tilde{A} \tilde{A} \tilde{

^ EÁ CEIÁ æc@ [çã * Áæscãçãæð • Á @ælÁsc^æ ^ Á @} Á * • ææð ^å Á å å å • Á ¢sc^å Á í Á] @EÁ

-ÈÁ V@ Á[]^¦æq[¦Á• @ed|Ácæà^Á¦^æ=[}æà|^Á]¦^&æĕ ca[}•Áα[Á]¦^ç^}cÁc@ Á^}d^Â[-Áˇ}æĕ ca[}ā^åÁ ç^@æ\^•Á;}q[Ác@ Á;ā*Ásˇ¦ā;*Á;[}Ë,[¦\Áq²';•ÈÁ

* ÈÀ V@^Á,]^¦æe[¦Án@æh|Án^^]ÁsæÁsæajñÁ[*Á;~Ásæ8caçãaaðn•Áq[Á&[}d[|Á**ãaãç^Ási*•dÈÀ

@ŽÁ 27[| Á] ; [b) & o Á* | ^æe^ | Ác@e) Á[} ^Áææs| ^Á[| Á[j ^ Á[ā^Á[-Á| [æåÁ] [cÁ|[&æe* åÁ] ãc@a | ÁæÁÞæeš | æþ| ^Á U & & ; | | ā * ÁCTē à ^ • (‡ • ÁCTE ^æÉā] | ā | Áa[Áa cæb cā] * Áæ) ^ Æa[} • d * & cā[} Ác@ Áæ]] | ā&æ) óÆa Á^ * ā ^ å Áa[hÁ FÉÁ Ù `à { ãc/ædŠæb * ^ ÁCTE ^æÆÕ | æå ā] * Á, ^ | { ãc/æð]] | ā&ææā] } Áa[Ác@ ÁÖā d ā&dÉÁ

GHÀ Uà cœath Áacháth a cháir a cháir agus fi hi hair a cháir agus fhí hair agus fhí h

HÈÁ Uà casā, Á ¦ãnc^) Ás^¦ãaBasaá, À¦[{ Ás@ ÁÖā dāBoÁ casaā, * Ás@seÁs@ Á; |[b^8có ás Áā Ás[{] |ãab) 8^Á ão@ÁÜcase^Ása) å Áš[8cabÁ^* |æsā]} • Á^|æsā, * Ág Ár>æs |ad|^ÁU8&* ||ā, * ÁOE à^• d. • ÈÁ I ÈÁ QÁO@Á] |[b^8cÁā Á][8cæ*åÁ, ão@ã, ÁcaÁÞase |ad|^ÁU8&* ||ā, * ÁOE à^• d. • ÁOE^caå åãaā]} adÁ

{ãnđiandari}•Án @edlÁnnà^Á∧~ ďa^åÅ

 $T \hat{O}OE\hat{U}T \hat{O}A^{8}[\{\{\}^{a}aceaa_{i}\} \bullet \hat{E}aceaa_{i}] | aceaa_{i} \rangle \hat{E}A$

å ÈÁÔ[}•ãā^¦Ásqt^¦¸àæ^Á,´^æ;•Á́,´^æ;•Á́, Æåã;][•áqÁ, oœ;¦Ás@æ;Á;]^}Áà*¦}ā;*ÉÁ`&@Ásæ;Á&`ccā;*Ás@Á;æť;¦ãcÁ [Æsœ;Áæ;*^¦Á;æc°¦ãæqÁ*]Ásæ;Áā^;[[åÊás;åÁ&@ā]]ā;*Á;{æ;¦Á;æc°¦ãæqÉãsÁ^æ;ãà;\Á;Á;ãaãæc°Á; ā[]æ&o•Á¦[{Á;]^}Á;čaå[[¦Áà*¦}ā;*ÉÁ

Ùcæe^Áæ) åÁŠį &ælÁ^* |æai}}•ÈÁ

Á

(" 6]c`c[]WU`FYgcifWYg`

Á

Ó QU ŠU Ő ΦÔ CŒŠÁÜ Ò Ù U WÜ Ô Ò Ù EÁN [*	Ú[ơ/) cã# (^Á Ùāt} ã ã 8 2 2 3 o Á Qu] æ 8 o Á	Š^••ÁV@æ)Á Ùāt}ãa8æ)oÁ ¸ão@Á Tãaātæaā[}Á	Š^••Á V@aa)Á Ùa*}ãa&aa)oÁ Q:]aa&oÁ	Þ[ÁQ]æ&cÁ
adafi P ag、 ÁsaÁ à · cæ) cãn þásná ç \		⊠Á	∏Á	ΠÁ
à DÍP æṣ ^ ÁṣṇÁ `à • œà @āṇÁṣṇắṣ ^ ! • ^ Ár ~ ^ & ớt } Áṣḍ ^ Áṭḍ æbāṇà Á@aàāææði ! Á [œ ! Á ^ } • āīāṇ ^ Á; æc ' læþág { { ` } āī Áṣā ^ J @āð à fŋ Áŋ & æþð ! Á ^ * āṭ } æþÁ] æ) • Ēḥ [ā&a* • Ēḥ ^ * æṣḍ } • Æ; lÁs ^ Áœ Á Ôæþāṭ ! } āæþÖ ^] æb (^ } ớt - Á Øṣē @ṣḥ) à Ár āṭ ār Áṭ ! ÁNÈ JĒÞŌṣē @ṣḥ) à Ár āṭ ār ÁŪ ^ ! çā& ÑÁ	· ·	∏Á	⊠Á	∏Á
8DÁPæç^ÁæÁ+ˇà•æ) @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @ @	ш, .	∏Á	⊠Á	∏Á
å DÁQ (ơ\-^\^Á•`à• caa) cãaa ^Á, ão QÁo @Á([ç^{^}) oÁ[-Áaa)^Á) æaãp^Á ^•ãa^}) oÁ!Á, à læe[`Áē @Á!Á, āå ā^Á]^&8a•Á,!Á, ão @Á• caaà ā @ åÁ } æaãp^Á^•ãa^} oÁ[!Á(ālæe[!^Á, āå ā^Á8[!!ãā[!•ĒĒ[!Áā[]^å^Áo@ Á *•^Á, Á, æaãp^Á, āå ā^Á, *!•^!^Á, āơ.•ÑÁ	ш,,	∏Á	⊠Á	∏Á
^DÁÔ[}- a&cÁ, āc@Áæ)^Á [&æþÁ][a&a*•Á[¦Á[¦åā]æ)&^•Á]¦[c^&cā]*Á àā[[*ā&æþÁ¦^•[*l&^•ĒÅ**&@Åæ•ÁæÁc^^Á]¦^•^¦çææā[}Á][a&;Á[¦Á [¦åā]æ)&^ÑÁÁ		ΠÁ	⊠Á	∏Á
	·	∏Á	⊠Á	∏Á

G][b]ZWUbWY7f]hYf]U.ÁÝÚ![b\&c⁄ā] | æ&o Á][} Áàā|[* ā&æþÁ^•[`!&\•Á, [`|åÆà^Á*ā] ãã&æ} c⁄ãÆæ) ^Æ, Æ@Á
-{||[, ā * Á!^•`|c\åhÆ•`à•cæ} cãæþÁåā^&cÁ! ¦Áā åā^&cÁ\~&o\A*&A*&A*\å* [`|åæå^Á*•]^&að • Áæ} AæbæA*&A*\åäa*æA*&A*\åäa*æA*&A*\åäa*æA*\å*
•^} • ããæþÁcæ*• Ái]^&ãæþÁcæ*• Ái]^&að • Æi Ál &ææþ^* āj }æþÁ|æ)• ÊÁ;[|ā&ð• ÊÁ;|Á^*`|ææāj }• ÊÁ;|Áa, Ác@ÁÖæáā[;] ãæÁ
O^] ædd ^} c¼ -ÁØæ @Áæþ åAY åå|ã^ÁQÔÓØY DĀ;|ÁNÊÛÊØæ @Áæþ åAY åå|ã^ÁÛ^|çæð^ÁQNUØY ÛDĀ;|Áæþ^Á]^&ð• Á
]![c\&c\åA*\áj;|[çãāj}•Á;-Ác@ÁT å!ææ[!^ÁÓāàÁd\æ£ ÁOæòÁÇÈÊÆà`!![, ā * Á; |• DLÁ*`à• cæþ cãæþÁ\~~&cÁ
]![Aða æðæþ Á@æòãææÁ;|Á;c@!Á^)• ããæ¸^Á;ææ !æþÁ[{ { `} ãæð • Æað • Æað à Æað Ál Ææb£D^*āj æþÁ;|æþ • ÊÁ;||ãæð • ÊÁ
[!Á!^*`|ææāj}•Á[!Áà^Ác@Áæ² ^} &ð• Álā c\åAææi[ç^LÁ•`à• cæþ cãæþÁ^~~&cÁÇÈÊÆÁāJEÉ\^{ [çææÉ@æåi[[* æ&Á
ā c\!'] aāj DÁ][} Ácææ^Á;|Á\å^a\æj^Á]^&ð• ÁliÁ;ãc@Á• cææjā ææÁ,ææã;^Á^•• æð,of;|Á;ā*lææ[!^Á;āå]ã^A&[!!æã;]• LÁ\&[} +&æð,að,aæã;^Á

9 bj]fcba YbHJ`GYH]b[.`Ü^* ā[} æ|îÊfo@ÁÚ|[b\&ofæc\æf@æ Á@ē d[lææ|îÁa^^} Á •^åÁ]lā[æa]îÁ[lÁaā[à^lÁ æ) åÁā^, [[åÁ]l[å &cā]}ÊÁ^&l^æa]}ÊÁQ { ^•āo^ka^ç^|[] { ^}dÊæ}åÁ¸āå|ã^ÁæàāææÊ¥@ÁÚ|[b\&ofæc\æfa Á &[{] lã^åÁ[-Áāo^Á][}Êo^}•ãão^Áàā[|*ā&æ∮Á&[{ { `}ãão•kÁÔã{[}œ}^AY[[å|æ)åÊÁXæ|^Âæ}åÁ[[o@]Á *læ•|æ)åÊÁæ}åÁÓ|[æå|^æop^åÁ`]|æ)åÁ{!\^•oÁ@æàãææÊÁO&&[låā]*Áq ÁWÙÖOÆØ[\^•oÁÛ^lçã&^ÁÔOŠXÒÖÁ {æ]]ā]*Áa^jā^æaā[}Êó@Á^*ā[}æ|^Áæ[{]lã^a;oÁop^*^cæaā[}Ás]]^Á;āo@AÁU|[b\&ofæc\æfa Ás[{]]ã^aá[-Á

Ó | æ& Á ræ ÉÚ | '^* [} Á @ m^Á ræ ÉÚ w& ã & Ó [* | æ Ëã ÉÖ [* | æ Ëã ÉÚ [} å ^ | [• æÁ] ā ^ ÉÚ Q c ' lā | Á ãç ^ Á æ Áæ) å Á Q c ' lā | Á ãç ^ å Á @ e å . [| å ÈÁ

| Reasi a · : [] Ás[] å * &c* å ÁæÁæ) | å Á* ' | ç^^ Á; Ác@ ÁÚ! [炒 &óÁæ+ æá;] ÁØ^ à i * æô Á Í ÉÓCECFÉÁ; Áå [&* { ^ } dáç F DÁc@ Á [] 臣 爺ゃ Á | æð óÁs] { { ` } ãæð · ÉÇCDÓ ¢ã æð * Ás] } åãæð } • Áæ) å Ác@ ð Áæð ð Áæð ð Áæð ð Áæð áæð Ág Ág i [* æð Ág i [* æð Ág i [* æð Ág i [* * ãæð · Ág i i * * Åæð · Ág i i * åæð æð Ág i [* * ð ãæð · Ág i i * * Åæð æð æð · Ág i i * åæð æð · Ág i i * åæð æð æð · Ág i i * æð æð æð · Ág i | * æð · Ág i

8]gWigg]cb. fUL @/gg h Ub g][b]Z]WUbh]a dUWik]h a]h][Uh]cb]bWcfdcfUhYX" Óæ^åÁ[} Ác@Á åæææàæ•^Á/^•^æb&@Á(^}æfi}^aÁæà[ç^Éfo@Árčå^ÁæA*æÁi[^•Á;[ơÁ&[}ææijÁæ;Árjá/foÁæábæ&^}óÁ(Á&iáaã&æþÁ @aàāæaÁ[¦Áa)^Á2^å^¦æþÁ[¦ÁÙææ^Ájāc^åÁÙ]^&&)•ÈAP[, ^ç^¦ÉAàæ•^åÁ[}Áv¢ãcā,*Áç^*^ææā[}Áæ)åÁ}[, }Á •]^&&^•Á@æç^ÁæÁ([å^¦ææ^Á;¦Á@#;@Á;[ơ^}œæpÁ[Á;&&`¦Á,ão@4,Áo@ Á+čå^Áæb^æÆÁP[,^ç^¦ÉÉå`¦ā]*Áo@ Áæ}|åÁ •`¦ç^^ËÄ,[}^Á, ^¦^Á;à•^¦ç^åÁ;}ˤãe^ÈÖÓ^&æĕ•^Á;[Án]^&ãadeÁcæaĕ•Á;|æa}oÁn]^&&ã•Á, ^¦^Á;à•^¦ç^åÁå`¦ā;*Á o@Áan\aÁn`¦ç^^Êfo@ÁÚ¦[kh8cÁanÁj[cÁa) casajaæ^aÁfA^•`|cÁajÁnāt}ãasa) cáaj]æsocÁfÁo@{ÊÁP[[^ç^¦Êfo@aÁ å[^•Á;[ơÁ;|^&|`å^Ác@A;[••ãà đặc Ā,-Á, đå|ã^Á;]^&ã^•Áà^ā;*Á;|^•^} ơÁœÁc@Ácā; ^Á; Á&[}•d`&cā;}Á;|Áà^ā;*Á ā[]æ\$c^åÁ|[{Áç^*^œaā[}Á^{[cahê][ashā]*Êbh)åA[c@|Á|[*]åAhācclaa]*Áx&caçānān•Á[¦ÁcajācÁv¢c^}•ā[}ÊÁ ¦[æåÁã[]¦[ç^{ ^}o•ÉÁ, æe^¦Áœa}\Á8[}•d`&œã[}ÉÁæ}åÁ~čč¦^Á¦^•ãå^}œãæ∮Áå^ç^|[]{ ^}dÉÁQAÁæååãæã[}ÉÁç [Á •^}•añaç^Á, [[å|æ)•åÁd^^Á@æàāææ•Á, ^¦^Á\$a^}œãa°åÁ§Aó@ÁÚ¦[b/8cÁŒ^æÈÆŒAå^•&¦āa^åÁà^|[, ÊÉc@ÁÚ¦[b/8cÁ å[^•Á,[ơÁ,:[][•^Á^{ [çæḥÁ,-Ád^^•Áa`ơÁsÁ`č;^Á,^•ãa^}œãa^}œãaфÁs^ç^|[]{ ^}ơÁs[^•ÆÁ,:^&[}•d`&æá[}A`;ç^^•Á æ) å Á&[[¦å āj æ aāi]}Á, ã c@Ác@ ÁÔæ‡ā[¦}ãæÁÖ^]æ b c(^} cÁ; ÁZã c @Áæ) å ÁY ājå |ã^Á, āj Áà^Á;^~~ã^å ÈÁV@ ¦^-{¦^Êæ Á • `{ { æ ã ^ å Áà ^ |[, Ê Ă T ã ất a æ ất } Á T ^ æ ` | ^ • ÁÓ QU É Á Â Q[` * @ ÁÓ QU É Á æ ^ Á] | [] [• ^ å Á t Á *) • ` | ^ Á ất] æ & • Á t Á •^}•ãããç^Á+]^&&î•Ácc+^Á!^å*&^åÁqfÁ!^••Ác@a);Á+ã†}ãã&æ);dŽV@\|^{¦^ÊÃq|]æ&o•ÁqfÁ+]^&ãæ(Á+@æ*•Á+]^&&î•Á [ˈˈlåÀà^ÀYggˈh\ Ubˈg][b]ZWUbhk]h\ 'a]h][Uh]cbˈ]bWcfdcfUhYXEÜ|/>æ^Å^-△¦Á;Áx@Á8[{]|/c^ÁÖÜŒÄ;Á 5 HHLMV a Ybhi6 Á; ¦Á; [¦^Áş,-;¦{ ææāi} £Ás; &|`åā; *ÁsæÁs; {] |^c^Áse) ædî•ã; Ái-Ási] æ&c•Ás; Ái æ&@Á,-Ás@•^Ás]^&æð•ÉÁ

-{[, ^!^åÁ^ā, Á; l&@åÉ, æêæææ æ Á; [] &[;] -{[, ^!Éán^æ ^å kæsî ājææá @, ^ÁQåãæþ Á&|[ç^!ÉT ^c@ •^|ææq Áà^æåáÁã&@} ÉÉæþ åÁ; çææt aáÁ; æç^åÁçãà`} `{ ÉÉP[, ^ç^!ÉÉæ Áå^• &lãà^åÁ; Ác@ ÁÓÜŒÁÇÌ^&cāt} Aí ÉEDÉÁ; [Á] ^&ãæþË •œæ •Á |æþ óÁ] ^&ã•^ \; ç^åÁ; ãc@ð Ás@Ác å Áæb *æåi '; ā *Ác@Áð\åÁ; '; ç^ ÉÁÓ^&æ •^Á; [Á] ^&ãæþÁ •œæ •Á |æþ óÁ] ^&ãð• Å, ^!^Á; à•^!ç^åÁ; '; ā *Ác@Áð\åÁ; '; ā *Ác@Áð\åÁ; '; b &cÆá, Á; [óÁæ) åÆð; æc åÁt ÁA^• `|óÁ; Á eð } åÆþ * Å¢ *Å¢ *Å; Af æð Æð † [óÆæ ÁÚ!] b &cÆá, Á; [óÆæ, Á£] æc åÁt ÁA^• `|óÁ; Á æð Æð Æð † [óÆæ, Á½] [æð æc áÁt Ácæ, Áæð Æð Æð æc áÁt Ácæ, Áæð Æð æc áÁt Ácæ, Áæð Æð æc áÁt Ácæ, Áæð æc áÁt Ácæ, Áæð æc áÁt Ácæ, Áæð æc áÁt Æð *Å¢ [Á&æ, Áæð æc áÁt æð æc áÁt Ácæ, Áæð æc áÁt æð æc áð æc áÁt æð æc áÁt æð æc áð æc áÁt æð æc áÁt æð æc áð æc æ

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MammalsĚlØãç^Á•]^&ãædĒ œeč •Á; æ; { ædÁ•]^&ã•Á@æç^Á; [å^¦ææ^Á;¦Á@ã @Á;[ơ⟩; œãædÁ;Á; &&č¦Á; ãc@ð;Ác@;Á •č å^Áæ;^ækÍÙ[}[{ æÁd^^Áç[|^ÁÇArborimus pomolŒĎ[;c@ÍOE; ^¦ã&æ);Á][¦&č]ā,^ÁÇErethizon dorsatumŒÁ ¸^•♂¦}Á^åÆàæÁÇLasiurus blossevilliítŒÁQ æ;ÁàæÁÇLasiurus cinereusŒÆæ);åÁæ;@¦ÁZY^•♂Ô[æ;♂ÖÚÙÆÁ

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6 **€**!%ÁGYbg]hj Y'HfYYgÉÁ

QÁt^^•Ásc^Áj.¦[][•^åÁ[¦Á^{[çæþÉ];|^&[]•d`&cā[}Ár`¦ç^^•Ár@eþ|Ás^Á&[}å`&c^åÁs^ÁscÁ`æþãðàÁsā[[*ãróÁ d[Áãs^}cã^ÁU;|^*[]Á @ác^Á[æbÁ[;|^•óÁæ)åÁ,[[å|æ)åÉÉæ•Á, ^||Áæ•ÁÔæþā[;}åæóÞàæÁ[;|^•óÁæ)åÁ,[[å|æ)åÁ @æsìãæædÁ^{[çæþ¼,-Ár^}•ããg^Á@esìãææó+@eþ|Ás^Á&[}å`&c^åÁsþÁæ&&[¦åæ)&^Á,ão@Óæþā[;}ãæóÖ^]ædd ^}oð; Øãr@ÁspàåÁr ājå|ã^ÁgÔÖØY DÁ^*;|ææā[}•ÉÁ

6=C!'.ÁBYgh]b['6]fXg"ÁÚ¦^Ë&[}•d`&@i}Á*`¦ç^^•Ár@æ|Áà^Á&[}å`&c^åÁj¦ā[¦Át[Áæ)^Áç^*^œæaā]}Á^{{ [çæþÁ [¦Át¦[`}åÁåãč'àā]*Áæ&@ãœãæ•Ár&&%;liā]*Áà^ç^^}Áræ&@ÁrÁæ)åÁOE*`•ơÁnFÁrÁæ)^Á^æè£ŒQã;ÁáãåÁ

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ç^*^@edi}}Á^{{ [çæhÁ¦Á¦[`}åÁsãeč¦àāj*Ás&@ajãæð•È&AÁçãa^}&^hásæÁ[[•o•ÁsAjà•^!ç^åÁgæðèÈàææÁ`æ)[ÉÁ
æ{{ [}ãæÁsá[¦ĒÁ¦^æ•^Ácæāj^åÁsæáj°eDÁse[ĭ}åÁs^^•Á;Ás6*AjkÁsæÁ[[•o•ÁsAj}}-d`&@a|Á
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	à DÍÔæ`•^ÁnaÁr`à•œa) cũan, léan, c^¦•^Ás@aa)*^Áng Án@ Árāt}ã 383aa) &^Áng Áng Áraðt}ã 383aa) &^Áng Áng Áraðt}ã 383aa) &^Áng Áng Áng Áng Áng Áng Áng Áng Áng Áng	∏Á	⊠Á	∏Á	∏Á
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O EÁ ^ oÁ; ¦o @ÁŞÁÛ^&ca;}Á €GIÈFÇ&DÁ;Ás@ÁÚ `à|&&ÁÜ^•[`¦& ^ AÔ; å^Á;¦ÁsæÁ&`|c`¦æþÁ^•[`¦& ^ Áş Ás;Ás ^^& ^ { ^ åÁ % 6.][ˈlœa) chÁ} å^¦ÁÔÒÛ O Ésc) å Ás@•Án|à āà|^Á;¦Ásē ca;*Á;}Ás@ÁÔæþã;¦}ãæÁÜ^*ã c^¦Á;ÁPã cị¦æÁÜ^•[`¦&^•Á ÇÔÜPÜ D ÉsánÁ; `•oÁ; ^^oÁsæÁræe cÁ;}^Á;Ás@Á;∥[;ā]*Ás¦ãs^¦ãæbÁ

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^|āt aba|^Á} å^¦Ás@•^Áslāc^¦āæÁs@Á;¦[]^¦ĉÁ; *•cÁ^cæājÁ *~a8zā}cÁnjc^*¦ācÁt[Ás[}ç^^ÁarÁt][|cæajcÁ *æátāð*•ÉÁ Quc^*¦ācÁārÁb'å*^åÁājÁ¦^|ææāj}Ác[Á•^ç^}Áæe]^8orÁāj8|*áāj*hÁ|[8ææāj}ÉÁå^•āt}ÉÁ•^cæāj*ÉÁ{ææ^¦ãæd+ÉÁ ,[|\{æaj•@ajÉÁ^^|āj*ÉÁæajåÁæe•[8ãaæāj}ÉÁ

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^` Ú`à|a&ÁÜ^•[`¦&^•ÁÔ[å^ÁÙ^&aā]}ÁŒF€ÌHÈCÁæ†[Áå^-ā]^•Á‱}ã`^Áæd&@e^[∥[*a8ædÁ'^•[`¦&^•+ÁæeÁ‱a)^Á æd&@e^[∥[*a8ædÁædcãæ&dÉA;àb^&dÉA;¦Árãc^Áæà[`cÁ;@a8@ÁæÁæa;Áa^Á&|^æd|^Áå^{{ [}•dæc^åÁc@edÉA;ãc@;`cÁ;^¦^|^Á æååā]*ÁgfÁc@Á&`¦¦^}cÁa[å^Á;-Á}][¸|^å*^ÉAc@¦^ÁafÁæÁæð @Á;¦[àæàājācÁc@ædÁæÁ;^^œAæ)^Á;-Ác@Á[∭[¸ā]*Á &Jāc^¦ãæbÁ

•Á Ô[}cæan]•Áng-{|{ æean[}Á,^^å^åÅn[Áean]•, ^|Án[][|cæan]oÁ,&&n}cæan&A^•^æa&@Á`^•can[}•Ánen)åÁn@ean&A c@:|^Ánen Ánen&a^{[]}•dæan|^Á,`à|a&Angoch',o*oÁng Ángocháng-{|{ æean[}EÁ

•Á QÁŝã^8d^Áæ•[8ææc^åÁ¸ãc@ÁæÁ;8æð}cãæ8æd|^Á^8[*}ã^åÁã[][¦ææ)óÁ;¦^@æq[¦ækÁ;¦Á@æq[¦ækÁ°ç^}óÁ;¦Á]¸^¦•[}ÆÁ

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OZÁað |åÁr `¦ç^^Á, æ•Á&[}å`&c^åÁa^ÁOTpæá¶}ÁØ^à¦`æt^ÁIÉEG€GFÉEÖ`^ÁQ[Áç^¦^Árc^^]Áo^¦¦æa∄ÁÇ[{ ^Áæt^æ∙Á &[}œa∄Á•∥]^•Á*¦^æe^¦Ác@æ)Á̀à DÁæ)åÁç^*^œæa∄}Á&[ç^¦ÉÁc@ Á-að |åÁ•`¦ç^^Á, æ•Á&[}å`&c^åÁ[}Á Á ad] | [¢ā aæ^ | ÁCÌ Ēæ& | ^ ÁÇæ | æ Á āœ Á | æ Ácæ | Ácæ | [] * Ácæ | æ Æcæ | æ Æcæ

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9B9F; MĚÁY [ˇ àÁs⊚Á,¦[b∿&dÁÁ	Ú[ơ\) cũn (Â) Ùất} ã Đốc (Đ) cÁ Qu] as số (Ā)	Š^••ÁV@ea)Á Ùât}ãa38æa)oÁ ,ão©Á Tãa2tæaa[}Á	Š^••Á V@e)Á Ùa*}ãa8æ)oÁ Qu]æ&oÁ	Þ[ÁQ]æ&oÁ
æÐÑÜ^• ` oÁspiÁj[ơ^}cōæb ^Ánât}ã&Bæa)oÁn}çā[}{ ^}cæb/Ñsi]æ&oÁsr`^Ás[Á , æ•ơ^~ ĒÃāj^~æ&a?}ōĒŽ ¦Ár`}}^&^••æh^Ás[}•*{]oā;}Á[-Án}^!*^Á ¦^•[ĭ&^•ĒÁsr`!āj*Áj:[bh&oÁs[}•ot*&aā[}Á;!Á;]^!ææā[}ÑÁÁ	ΠÁ	ΠÁ	⊠Á	ΠÁ
à DÁÔ[}- aBoÁ; āo@Á; Á;à•d~8oÁseÁrcase^Á; Á[8eæþÁ; æ;)Á; Á^}^, æà ^Á ^}^!*^Á;!Á°}^!*^Áx~aBað}-8:ÑÁ	∏Á	∏Á	⊠Á	∏Á
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G][b]ZWUbWY 7 f]HYf]U.ÁV@ÁÚ¦[][•^åÁÚ![b/8cÁ, [ˇ|åÁ•ât}ãæææð, dˆÁā[]ææcÁ^}^!*^ÁãÁ8[}•dˇ&æā[}Á[!Á []^!ææā[}Á[-Ác@ÁÚ![b/8cÁ, [ˇ|åÁ^•ˇ|cÁ∮Á, æ•c/~¡ÉÁB,^~ææð};cÁ[!ÁŤ}}^8ו•æð^Á8[}•ˇ{]cā[}Á[-Á√}^!*^Á !^•[ˇ!8^•Á]!ÁāÁc@ÁÚ![b/8cÁ, [ˇ|åÁ8[}-¦æ8cÁ, ãc@ÁæÁ•cææ^Á[!Á[8æÞÁ]|æ)Á[!Á!^}^, ææì|^Á^}^!*^Á[-Á√}^!*^Á ^~æ8æ}}&°ÈÁÁÁ

8]gW gg]cb. fU!VŁ@/gg 'h Ub 'g][b]Z]WUbh]a dUWH" \@ ÁÚ|[] [• ^ åÁÚ|[b &cÊáş & å å * Ás@ ÁÖ^ç^|[] { ^ } cÁ CĒ \^ { ^ } cÉá[^• Á} [cÁáş & à ^ Á•] ^ &ãæ&Áå^ç^|[] { ^ } cÁå^• æ Á [↓Á] \ [] [• æ ÊÁ} [\ Áa[^• ÁæÁ* \ æ) cÁæ) ^ Á ^ } cæþ { ^ } c• Á \ Áa^ç^|[] { ^ } cæð č \ ^ÁQ * • ā * Á \ [b & 6 Á ā |Áa ^ Áæ) æ † : ^ å Á } ÁæÁ \ [b & 6 Á ç A Á A Æ & A A Æ & A A Æ & A A Æ & A A Æ & A A Æ & A A Æ & A A Æ & A A Æ & A A Æ & A A Æ & A A Æ & A A Æ & A A Æ & A A Æ & A Æ

U}&^Á&[}•d`&&^åÊÁ~č¦^Á/^•ãå^}@āa†Á`•^•Á¸[`|åÁ&[}•`{ ^Á^}^!*^Á¡¦Áā;&^!ā[¦Áæ;åÁ^¢¢^!ā[¦Áa;@ā;*ÊÁ PXŒÔÁ•^•¢^{•ÊÁ^-¦ā*^¦ææā[}ÊÁ^|^&d[]}ã&•Á•^•¢^{•ÊÆæ;]]ãæ;&^•ÊÆæ;åÅ•^&`¦ãôÁ•^•¢^{•ÊÆæ;[]*Á;¢@!Á Á

HHÁ

Yão@Áæå@\^}&^ÁqíÁc@Áæ{¦^{^}cā[}^åÁ\^*`|æaā[}•ÉÁæ)åÁ[c@\•Áā]c^}å^åÁqíÁ¦^å`&^Á^}^*^Á &[}•`{]qā[}ÉÆ[]æ&o•Á¦[{Ác@ÁÚ¦[][•^åÁÚ¦[b^&cÁ^|æe^åÁ[Á^}^¦*^Á&[}•`{]qā[}Á¸[`|åÁà^ÁYgg'h\Ub` **q][b]Z]WU**bHÉÁ

+" ; Yc`c[m'UbX'Gc]`g`

; 9 C @C; MT5 B8 `GC =@GEÄÁ [ˇ åÁo@Áj.¦[b^&dÁÁ	Ú[ơ/) cũna (Á Ùất) ã 3824) cÁ Qi] 24840 Å	Š^••ÁV@æ)Á Ùāt}ãa38æ)oÁ ¸ão@Á Tãaātæaa[}Á	Š^••Á V@a)Á Ùa*}ã&aa)oÁ Q:]æ&oÁ	Þ[ÁQ]æ&cÁ
æÐÁÖã^&q^Á[!Áð]åãã^&q^Á&æě•^Á][ơ};œæþÁ•*à•œæ)comæþÁæåç^!•^Á ^~^&œ Éðá]8 *åā]*Ás@^Áã\∱,-Á[••Éðá]b'¦^Éð¦!Áå^ææ@ðá]ç[lçā]*hÁ	Á			
a fú)] c		∏Á	⊠Á	∏Á
andnûd[}*Á^ã{ abÁ;[`}åÁ@èèā;*ÑÁ	∏Á	∏Á	⊠Á	□Á
\$\text{\ti}}}}}}} \ext{\ti}}\tint{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tin}}\tint{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\texi}\tint{\text{\tin}\tint{\tex{\text{\text{\texi}}\text{\text{\text{\text{\text{\text{\ti	∏Á	∏Á	⊠Á	∏Á
ã; DÑSæ) å• ãã∧•ÑÁ	∏Á	⊠Á	∏Á	∏Á
à ĐẦU^• ˇ ơÁŋ Á ˇ à • œa) cũa ĐÁ [āļÁ ; [• ā[} Á; Ás@ Á[• • Á; -Á[] • [ā]ÑÁ	□Á	⊠Á	□Á	□Á
8DÁÓ ^ÁI 8æc ° åÁ; } ÁseÁt ^[[* 都Á; } ǎōÁ; ¦Á; [滇Áo@æcÁs Á; • cæà ^ ÉÁ; lÁo@æcÁ , [ˇ åÁà ^ 8] { ^ Á ˇ } • cæà ^ Áæ ÁæÁ; ^ • ˇ óÁ[-Áo@ Á] ; [b 8 dÉÁæ) å Á] [c ° } cãæ ^ Á ^ • ˇ óÁs Á; } EÁ; lÁ; ~ 造 ã ° Áæ) å • āā ^ ÉÁæc ° læ A *] ! ^ æà ā * ÉÁ • ˇ à • āā ^ } 8 ^ ÉÁā ˇ ^ -æscā j } Á; lÁs[æ] • ^ ÑÁÁ	ш,,	⊠Á	∏Á	∏Á
å DÁÓ Á [8æc à Á] Á ¢] æ) • ãç Á [ãĒææ Áå -ā] ^ å Áā Á æà ÁFÌ ĒFĒÓ Á, Á c@ÁN} ã [{ ÁÓ ā å ā ā ÁÔ ā Å FJJI DĒÆ A Aæā} * Å ` à • æ) cæþ Áā ā ^ & A [Áā à ā ^ & AÁ Ā A Á Á Á Á Á Á		ΠÁ	⊠Á	ΠÁ
^DÍPæç^Á•[ã•Áā; &æ; æà ^Á; Áæå^``æ¢ ^Á•`]][¦æ; *ÁœÁ*•^Á; Á •^]æ&Áæ)\•Á[¦Áæ;6; ææç*Á; ææ°¦Áåã;][•æ;Á•°•°{•Á ;@; ^Á•^, ^;•Áæ;^Á}[óÁæ;æā;æà ^Á-[¦Ác@Ááā;][•æ;Á[-Á, æ•¢^Á ;æč¦ÑÁ		∏Á	⊠Á	∏Á
-DÁÖā^&d^Á[¦Áāåāā^&d^Áå^•d[^ÁæÁ*}ã~^Á]æ∳^[}₫ [*ã&æ∳Á ^•[*¦&^Á;¦Áãe^Á;¦Á}ã~^Á^[[*ã&Á^æč¦^ÑÁ	∏Á	⊠Á	ΠÁ	∏Á

ΗÁ

Ö^ç^|[] { ^} œÁÚæ&^|• DÁ^` ă^Á` à{ ãœæþÁ; ÁÕ^[c^&@) ã&æþÁÜ^] [¦œÆÕ¦æåä; *ÁÚ|æò,•ÆP^å¦[|[*^ÁÜ^] [¦œÆÁ ^ϮÁ[ÁY}•` ¦^Áå^ç^|[] { ^} œÆÁà^ā; *Á; ¦[] ^!|^Áå^•ã; ^åÉæò; åÁ¸ā|Æb; &\`å^Áæó; ^oÁ; Æèæð; | b&æó;]^&ãæÁ !^&[{ { ^}å^åÁÓ^• œÁTæò; æ*^{ ^}œÁÚ!æ&ææX^• Áæò; åÁTãæ; ææã; }ÁT^æ•` ¦^•ÁÇæÁ; ^^å^åDÁ-{¦Á~č'!^Á å^ç^|[] { ^}œ∱; [ææç Æç Ææç[æãÆ;]æ&œÆç Æç Æ*^[|[*^Ææò; åÁ; [ææã; }ÉÁ

\(\text{Size}\) d^ \(\text{Efc}\) AO \(\text{AO}\) \(\text

. Ø[¦Áx@Áæà[ç^Áı^æ•[}•ÉÆa[]æ&o•Áa[Á*^[∥[*^Á¦[{Áx@Á[••Á;-Áa[]•[ãlÉA\¦[•ã[}Áæ)-åÁæ)-åÁæ)-å•|ãå^•Á;[*|åÁà^Á `Ygg'h\Ub`g][b]ZWUbhik]h\`a]h][Uh]cb`]bWcfdcfUhYXÉÁ

A]h][Uh]cb`AYUgifYg.`

aad`YaYbHJhjcbˈcZ7I@l%"

; 9C!%AÓ @ÁÚ![\% 80Á @HÁ8[{]|^Á āc@Ác@ Á\|[•ā]} Áæ) å Áå^•ā]} Ár cæ) å æð å•Á; \dā^å Á\$, \hô@æ] c^\Ai Ai Ár Ác@ Á W. āæ@ÁÔāĉ ÁÔ[å^ĒYÚ!ā|·Ár Áæ)^Á*![`} å Ååã č làæ) &^ĒY\![•ā]} Áæ) å Á•^åā]^} cÁ\$[\d[|Ai] |æ)•Á• @HÁà^Á•`à { ācc^å Ár Ác@ ÁÚ`à|a&AY [!\•Áæ) å ÁÔ[{{`}}āĉ ÁÖ^ç^|[]{^}cÓ^] æð (^} oÁ[|Ai]ca, Áæ) å Áæ]]![çæHÁ\ÙæãAí|æ]•Á @HÁ![c^&oÁe æā]•OÁ[āÁ*![•ā]} Áæ) å Á*}[[-ā] Áæ) å Áæ]['[-Āc@]** @Ác@ Áā]]|[]\{^} cæā]} Ár Áæ]]![]\āæc ÁÓ^•oÁ T æ) æð ^{{}}oÁU|æ&caX^•Ár ÓT Ú•DĒV^] a&æAÓT Ú•Ás &|`å^Ár@Á|æ&^{{}}oÁr Ár Óæ) Ár Ár Óæ] Ár Óæ]

, "; fYYb\ ci gY'; Ug'9a]gg]cbg'

; F99B≺CIG9˙; 5G˙9A±GG=CBGËÁÝ [ˇ åÁs@Á¸l[b/&dÁ	Ú[ơ/) cãæ ^Á Ùã/} ãã&æ) cÁ Q;]æ&cÅ	Š^••Á V@a)Á Ùā*}āā&a)oÁ ¸ão@Á Tādā*æaā[}Á	Š^••ÁV@a)Á Ùã}ãã&a)ÓÁ Q;]æ&oÁ	Þ[ÁQ]æ&oÁ
æ£ÑŐ^}^¦ææ^Á*¦^^}@("•^Á*æ•Á^{ã•ā[}•ÊÁ^ão@¦Áåā^&d^Á[¦Á ā]åā^&d^ÊÁo@æóÁ{æ6Á@æç^ÁæÁ•ā*}ãæææ)oÁā[]æ&óÁ[}Áo@A ^}çā[]{{^}dÑÁ	ΔÁ	ΔÁ	Á	Á
à DÁÔ[} + \$804 à @\$ \$4] \$800	∏Á	∏Á	⊠Á	ΠÁ

 $\begin{array}{l} \widehat{\textbf{G}} \hspace{-0.2cm} \hspace{-0.2cm}$

 $\hat{O}_{c}(a) = \hat{A}_{c}(a) + \hat{A}_{c}(a) +$

V@Ácæ¢Á, ÁÔæjā[;] ãæóæ Áæå[] c³åÁçæjā[`eÁæå[aĕdæãç^Áş ããæãço, Ás ããæãço, Ás åÁr*ã |æã]} Ár|ææā; Ág Ás[ā æ¢Á &@æ)* ^ÉK *&@á, Á, @ææÁr ^ósæ*; *Ág Ásæá[] c³åÁçæjÁ [æ¢Á [ææÁ] *Ág PÕÁr{ã•ā]} •Árå *&æ] *Árææ², ãå ^ÈŒg *Ág Ásæá Aæ *Ásæá *Árã *&æ] *Árææ², ãå ^ÈŒg *Ág Ásæá Aæ *Ásæá *Árã *&æ] *Árææ², ãå ^ÈŒg *Ág Ásæá ÁÖDÛŒÁ æ*Ág } *Árå; [b/&æ Ár à b/&æá [ÁOÒÛŒÁææ ÁÖDÛŒÁæ ÁÖOÛŒÁ æ*Ág Asæá Aæ *Árã }ãæãæ &rÁæ å *Árã }ãææ &rÁæ å *Árã }ãææ &rÁæ å *Árã }ãææ &rÁæ *Árã }æ *Á

[c@\fÉ([¦^Á`¦àæ)Á&[`}cã\•ÁÇa¢c@`*@Á@#@\Á]^¦Á&æ]ãæÁa`^Á([Ác@ Áåãcæ)&\•Áājç[|ç^åÁājÁdæç^|āj*Áæ;^|āj*Áæ][`}åÁc@Á&[`}c°DÁæ)åÁ;ājãe&"|^ÁājÁdæç^|āj*Á

Ă ŠædîÊkwêÁU¦[b/8c/kg|8|ˇå^•Áæ}}^¢ææā[}Áæ]åÁ8[}•^!çææā[}Ák-Áæ]]¦[¢ā[ææ^|Â|EÁæ&k^•ÊÁ,@ak@Á,ā|Áœæç^Á }[Áā]]æ&c/Q;¦ÁæÁà^}^3~ā&āæ/Áā]]æ&cDÁ;}ÁÕPÕÊÄ;āç^}ÁwœæÁœÁÚ![b/8c/áæ/Á,ãœ;Áææ°åÁ;āœ@jÁæÁ,[}Ëæææā]{^}oÁ æb^æ£ÁæÆk@Á`¦æþÁææč¦^Á;Áœ@Áãæ^ÉææjåÁk{æ|Áå^ç^|[]{^}oÁ;[d]¦ā,dÉáæ)ÁÚ![b/8cdÉág,&|šåā;*Ág,dæed`8cč¦^Á ā[]![ç^{^}o∱æjåÁ[cœ|Ác/{][|æb^Á8[}•d`8cā[}Áæ&aājāãð•ÉæāÁ][oÁ^¢]^8cc³åÁ[Á•â]}ããææjdîÁg,&k^æ•^Á ÕPÕÁ§Áæ@Áæb^æ£Á¥ ãæÆá]]|^{^}cææā[}Á,Áæ@Áæ;¦^{^}oæÁæ]¦^{}aÁ^**;ææā[}•Éæā[]æ&coÁ[ÁÕPÕÁ{ã•ā]}•Á .[ĭ|åÁà^ÁYgg;h\Ubig][b]ZWUbhÉÁ

- " < UnUfXg'UbX'< UnUfXci g'A UhYf]U'g'

<5 N 5 F 8 G : 5 B 8 ° < 5 N 5 F 8 C I G ° A 5 H 9 F ⊫ 5 @GEÄÁÝ [ˇ åÁc@ Á] ¦[b % 8 dÁÁ	Ú[ơ} cũa () Á Ùấ} ã a Baa) cÁ Q] a Ba CÁ	Š^••ÁV@æ)Á Ùāt}ãa3&æ)oÁ ãa@Á Tãaātæaā[}Á	Š^••Á V@a)Á Ùa*}âa&a)oÁ Qi]æ&oÁ	Þ[ÁQ]æ&oÁ
addÓl^aac^ÁsaÁrðað jäa8æg cÁ@e æða Ág Ás@Aj`a 88Af;lÁs@Ár)çða[}{^}cÁ c@[`*@Ác@Á[`œ]^Áclæ)•][¦dÁx•^ÉAg;lÁsðað][•ædAg-Á@e æðag[`•Á {æc^¦ðæd•ÑÁÁ	ΠÁ	⊠Á	ΠÁ	ΠÁ
à DÍÔ¦^ææ^ÁæÁ a*} ã 388æ) ch@e æ å Áq Áv@ Á,* à 384Á; Áv@ Án} çā[}{ ^} cÁ c@[**@Á^æ•[}æà ^Á[;^•^^æà ^Á]•^óæba) å Ávæ&&ão}ok%[}å ã ã á]•Á ā]ç[çā]*Á c@ Á; ^ ^æ•^Á[-Á @e æ åå[*•Á{ ææ^¦äæþ•Áā]q[Ác@ Á ^}çā[}{ ^} cÑÁÁ	/ \	⊠Á	∏Á	∏Á
8ĐÔC đÁ ĐĐ ĐÁ [ˇ•Á; ðá•ðā]•Á; ¦Á ĐĐ ả ^Á ĐĐ ĐẮ [ˇ•Á; Á ĐĐ Č Ơ ^Á ĐĐ ĐĐ Ž ˇ•Á; ĐĐ ĐĐ ĐĐ ČĐ ČĐ ĐĐ ĐĐ ĐĐ ĐĐ ĐĐ ĐĐ ĐĐ ĐĐ	ΠÁ	∏Á	⊠Á	∏Á

<5 N5 F8 G`5 B8`<5 N5 F8 CIG`A 5 H9 F=5 @GEÄÁY [ˇ åÁc@∙Á]¦[b^&d#Á	Ú[ơ/) cũn (Á Ùất) ã Đốc (Á Q)] an So Á	Š^••ÁV@aa)Á Ùāt}ãa38aa)oÁ ,ãa@Á Tãaātæaā[}Á		Þ[ÁQ]æ&cÁ
å DÁÓ Á Í & & & å Á Í Á Á Á Á Á Á Á Á Á Á Á Á Í Á Á Á Á		ΠÁ	∐Á	⊠Á
^ DÁOZ [ÁæÁ] [[b & &Á] [&æc* åÁ, āo@ Áæ Áæā] [loÁæ) åÁ* • ^Á] æ) Á[¦ĒÁ , @ ^Á* & @ÁæÁ] æ) Áœæ Á; [oÁà^^} Áæā] [loÁË, āo@ Ác; [Æ, ð/• Á; Á æÁ* à ððÁæā] [loÆ; Á; à ððÁ • ^Áæā] [loÆ, [* åÁæ, Á; [b & oÁ• •]oÁ; Á æÁ• æ^¢ Áœæ æåÁ[lÁ^¢&^• āç^Á} [ā^Â-{ lÁ] ^[] ^Á'^• ãåð * Á[lÁ , [l', ð] * Á§ Áœ, Á; [b & oÁæ) æÑÁ	,	∏Á	⊠Á	ΠÁ
-DÁQ] anāÁā[] ^{ ^} canaā[} Á[-Á[¦Á] @ • a8aa ^Áā] ơ\-^¦^Á¸ áo@Áaa) Á anå[] ơ ả ấv{ ^;*^} & Á^•][} • ^Á] aa) Á[¦Áv{ ^;*^} & Ávçan& anaā[} Á] aa) ÑÁ	∏Á	ΠÁ	⊠Á	ΠÁ
* DÁÒ¢] [•^Á;^[] ^Á; ¦Á;d`&č ¦^•ÊÁ;ā@;¦Áà;ā^&d^Á; ¦Á;;åā;åā^&d^ÊÁ;Á æÁ•ã} ãã&æ;) oÁ;ã\Á;-Á [••ÊÁ;jö;'^Á;¦Áå^ææ@Á;jç[çā;*Á; ā¦a);åÁ -ā^•ÑÁ	∏Á	⊠Á	∏Á	∏Á

 $\text{WSQDESWOUA}_{A} \overset{\text{\tiny def}}{=} \text{WSQDESWOA}_{A} \overset{\text{\tiny def$

\text{CE|A; a* A* \(\text{a} \text{a}

8]gW gg]cb.ÁfLIVŁÁ@/gg 'h Ub' g][b]ZWLbhi]a dUWi k]h 'a]h[Uh]cb']bWcfdcfUhYX'ÁÔ[} • d' &aā[} Á æ&aā[āā] • Áæ] åÁ* č '^Á/• ãā^} cā#Á* • ^• Áæ• • [&āæ* åÁ ã@Áv@ ÁÚ| [lb &cÁ, [` |åÁ^` ` ā ^Áv@Á Á [` cā, ^Átæ) •] [| dÉ * ° Éæ; åÁåã] [• æþá - Á* { æþá - Á* æþá • Á; - Áæe æå [` • Á æe åæ | ěæ | &á A* æ | &á | A* * å &é Eá; å e Éå; à læð • A dæ) åÁ] | [] ^ | c Á; æð; cð Aæ; åÁ;] ^ | æð; Eð; à læð; Eð; à læð; e Éå, æð; cð Aæ; à A* [| c, ^ } o Áæ; åÁ*]] | æð; è Éð; à læð; • Éð; à læð; • Éð; æð; dæð; e Éð; æð; dæð; e Éð; æð; æð; þá; à læð; æð; þá; à læð; æð; à Á* [| c, ^ } o Áæ; åÁ*]] | æð; è Éð; ò æð; e Éð; æð; dæð; e Éð; æð; dæð; e Éð; æð; e Éð; à læð; e Éð; à læð; e Éð; à læð; e Éð; à læð; e Éð; æð; e Éð; à læð; è Eð; à læð; e Éð; à læð; e Eð; à læð; è Eð; à læð; e Eð; à læð; è Eð;

Á fWC@/gg·h\Ub·g][b]Z]WUbhjadUWHÁÞ[\[{ã·ÁÒ|^{^}cæb^ÁÙ&@[|Áā·Áæ]]¦[¢ã;ææ^|^ÁĒÈÉİË;ā/Á¦[{Ác@Á &&&^••Á][ā;cÁÇì]€ÄÜ^å¸[[åÁŒç^}`^DÁ-{¦Ác@ÁÚ¦[b/8dŽÁP[¸^ç^¦ÊÁ&[}•d`8cā;}Áæ&æçãæð•Á¸[`|åÁà^Á \^`ă^åÁqÁÁAæ, •][¦cÁæ)åÁ`•^Á¦[`cā,^Á@ææåå[`•Á;ææ^¦ãæ†Áā,Áæ&&[¦åæ)&^Á¸ãœÁæ)Áæ;]|a&æà|^Á \'`ä^åÁqÁAÁ;Áœ;A°|^} &\Á;ææå;}•Á;[`dåÁ°}•ÉŒ@(^^} &\Á;ææå;Áæ,Á°) \'`|åÁ°}•`¦^Ác@æðā;]æ&æ^Áq,Áæ&æ,Áq,Ãæ&Å|^{A}æ&æ,Áq,Áæ&@[|Áæ¢^Á;Ygg·h\Ub·g][b]Z]WUbhEÁ

. CDB&[¦åāj*Áq[ÁVæàn|^ÁHODÁqÁ0@ÁNSOQDĚNVÔÚDÉ\([•óAæ)åË•^Á&æe^*[¦ān•Á,[ˇ|åÁà^Á&[}•ãá^¦^åÁ;[¦{æ4|^Á &[{]æañan|^ÉV @}Á.•^•Áæ4^Áña^}cãan³åÁæ•Á&[}åãan[}æ4|^Á&[{]æañan|^Áq¦Áx@ÁUODCÉ&[}&N;}•Áæ4^Á6]ā&æ4|^Á

æ•[&ãææ^åÁ¸ão@Á][e^}cãæþÁ-jā @Á@ææåå•Á•`&@Áæ•Ájæ;åÁ`•^•Ác@æ¢Á;æÁæædæ&cÁàāå•ÉÁ*^}^¦æe^Áå`•ŒÁ
];[å`&^Á•{[\^Á[¦Á•e^æá Á]]`{ ^•ÊÁ&¦^æe^Á^|^&d[} 3&Áā;e^¦-^!^} &^ÊÁ[¦Á[c@-l¸ã·^Áà^Á&[}•ãå^!^åÁ
@ææåå[`•ÊÁ/@Á,¦[b^&cÁæ†^æÆn Á[&ææ^åÁ¸ão@ð,Áæþ ÁDā•]æ&^Árð @Áv^;|ææð,Áz[}^ÊÁ; @ææ@á¸[`|åÁn`` ā^Ác@æóÁ
æð,^Á,¦[][•^åÁrd`&c`¦^•Á;¦Á;àb^&æ•Á@æçã,*ÁæÁ@ð @AÁ,-Á;[¦^Ác@æð,ÁrÍ Á^^cÁà^Á;^~;|^åÁq Ác@ÁDĚVOÔÁ;¦Á
¦^çã\¸ÊÁ

\(\alpha\) \(\delta\)
Óæ•^åÁ;}Ás@áÁş·{¦{ ææā;}Éxs@ÁÚ¦[b/8cÁ;[ˇ|åÁ;[c4^•ˇ|cÁşÁæÁæ^ĉÁæeæååÁ;¦Ár¢&^••ãç^Á;[ãr^Á;¦Á;^[]|^Á ¦^•ãåā;*Á;¦Á;[¦\ā;*ÁşÁœÁÚ¦[b/8cÁæd^æÈAQ]æ&oó;[ˇ|åÁs^ÁYgg:h\Ub:g][b]ZWUbHÁ

file @/gg h Ub g][b]ZWUbh ja dUWWAV@ | ^ Áæ+^Á; [Ás[{][}^} o Á; -Ác@ ÁÚ|[b &cÁc@æÁ; [` |åÁą̃] æãÁ[| Á a o h-^|^Á; ác@Á() | b &cÆ*] ^ &ãæ&* • Æą] | [ç^{{^}} o Á a ó h-^|^Á; ác@Á() | b &cÆ*] ^ &ãæ&* • Æą] | [ç^{{^}} o Á æá á á h-° æá a á h

A]h][Uh]cb'AYUgi fYg.

< 5 N!% `Áv@ Áå^ç^|[]^¦Ár@aḥ|Ár•cæà|ã @Áæ;à åÁā[]|^{ ^}cÁs[}•d`&cā[}Árāc^Á;æ;æ*^{ ^}cÁ;!æ&cã&^•Ác@æÁ ¸ā|Áj¦^ç^}cÁq[¢ã&Á;ææ^¦ãæ;Aæ;åÁq[c@;¦Áå^à¦ã;Á-¦[{Ár}c^¦ā;*Ác@;ÁÔãc°qÁrq[¦{Áå;æã;æ*^Áæ;åÁ;ææ*;æéÁ •^•c^{ •ÊÁŞ&}&|`åā;*KÁ

æðÁ V@¦^Á @æļÁà^Á, [Á d; læt^Á; Á@ææåa[*•Á; ææ^¦ãæþ•ÁææÁ@AÚ![b/8cÁÚãæ^LÁÁ

Á

À

<5 N! & ÁÙ @ ˇ |åÁ] [ˈcæà |^Á*æ [|ã ^ Ḥ [¸ ^ |^åÁ^ˇ ˇ ã { ^} œÁà^Áˇ • ^åÁ[} Á•㺠ÆÁœ Á-{ ||[¸ã * Á-ã^•æ^Á] ' ^ &æ cã } • Á•æ Aæ A } kÁ

ædÁÙ]æ\Áæ¦^•o^¦•Áæ⊹Á^ઁã^åÁ;}Áæd|Á;[¦œæà|^Á;æ•[|ā;^Ё;[,^¦^åÁ`ઁā;{^}odÁ.

à ÀÀ Ò ˇ Ậ 〈 ^ } ơ Þ @ Þ Þ Áà ^Á (æā) cæā) ^ å ÁÐ Á Ē [[å Á [[\ ð] * Á& [} å āðā] } Æ Á āð Ø Þ ¢ @ Þ Ó Þ ^ • ¢ { • Áæ } å ÁÞ] æ \ Á æ b | ^ & Ø Þ • ¢ · Ø Þ • Ø Þ

å ÞÁ Ö[Á, [ơÁ^~~ ^|Á¯}} ạ * Á, ÏÁQ ơÁ~ ˇạ { ^} cÁĐôã] ^} • ^Á~ ^|ÁædÁ^æ ơÁF€Á^^ơÁ¦[{Á|[ˇ|&^•Át} āuā]} ÞÁ ^ ÞÁ Ö[Á, [ơÁ • ^Á~ ˇā] { ^} ơÁB, Áœd^æ Á, Áå¦ ^Áç^* ^ cædā]} ÞÁS^^] Áp^æç^• Áæ) å Áå¦ ^Á; ææ°¦ãæþ• Áæç æ Á¦[{ÁæÁ Q ơÁ ˇ~∤^¦ÞÁ

~£Á Þ[Á{ [\a}*Á;¦Á;]^}Á|æ{ ^Áæ|[, ^åÁ;^æ;Áæ;[|ā,^Ë;[, ^¦^åÁ``ă]{ ^}dÉ Á

%\$" < mXfc`c[miUbX'K UhYf EiU]hmi

< MBFC @C; M15B8 K 5H9FEI5 @HMMÁN [ˇ åÁs@ Á¸¦[bʰ&dÁÁ	Ú[ơ] cãæ (Â Ùā] ãã Bæ) cÁ Q.] æ& cÂ	Š^••ÁV@æ)Á Ùāt}ãa3&æ)cÁ ãa@Á Tãaātæaā[}Á	Š^••Á V@ajÁ Ùã}ãã&ajoÁ Qi]æ&oÁ	Þ[ÁQ]æ&oÁ
a ĐÁX ấị lạc v.Ác) Á, a c v.Á č a pác Á roa) å c b å A í l.Á, a e c v.Áá ã & @ c * v.Á l v č ã ^ { ^ } o Á [l.Á [c @ l , ã ^ Á * à * c a e) c ã a pļ ^ Á å ^ * l a c Å ^ Á * č l - a & v.Á [l.Á * l [` } å Å, a c v.Í Á ` a pác ÑÁ Å	ΠÁ	∏Á	⊠Á	∏Á
à DÁÙ à • ca) cã ẹlְ Áå ^ & l ^ æ • Á† ![ˇ } å ¸ æ œ · Á• ˇ]] ð • Á[! Áā] ơ · l ^ ! ^ Á • ˇ à • ca) cã ẹl ʿ Á ¸ ã œ ˙ ![ˇ } å ¸ æ œ · ! Á ^ & @ æ · A · ` & @ h @ æ · Á @ Á; ![๒ & A · { æ Áā[] ^ å ^ Å • ˇ • cæā] æ à ^ Á * ![ˇ } å ¸ æ æ · ! Á { æ) æ * ^ { ^ } cÁ[- Á c@ · Á à æ ā] Ñ Á		∏Á	⊠Á	∏Á
80 ÁÚ`à•œa) αῶτϥ ^Áτοφα^¦Áτο@ Á^¢ã•α3) * Á&i æāg æt ^Ájænac^i} Æi, Áτο@ Á•ãα^Á [ˈÁœà^æðēðāj&i¸åāj * Áτο@[`* @Áτο@ Áæφα^lænāj} Áj Áτο@ Á&i¸'i•^Áj ÁæÁ •d^æ(Á;lÁjāç^lÁj¦Áç@[`* @Áto@ Áæååãnāj} Á;Æni]^¦çāj *•Á*¦-æ&^•ÉÁ ājÁæÁ; æ)}^¦Á, @Æk@Á; [`jähÁ		⊠Á	□Á	∏Á
aDÁ^•ˇ oÁs ÁsaÁˇà•cæ) cáadón;[•ã;}Á;¦Áācææã;}Á;}ЁҚ;Á;~Ёãç\Á	∏Á	⊠Á	∏Á	∏Á
and à a ca) cael fág & ^a ^ ko Áac ^k, l áse [` } of ^á ` l ~as ^ k` } [~á Á æá, æ) } ^ l ☆ @ & @ ,[` l á Á ^ • ` l of Á Á [[å ā * 析, } 芷木 i 析 ~ • a h l á	□Á	⊠Á	ΠÁ	∏Á
aaaDASI^aæ^Á[¦ÁS[}dāa`ơÁ`}[~Á,æe^¦Á,@as@Á,[` åÁ^¢&^^åÁœ^Á &æq}æ∾ÁcÁ;Á^¢æ*cā;*Á[lÁ] æq}}^åÁ*c[¦{,æe^¦Áà æan;æ*^Á-°•o{•Á [¦Á; [çãa^Á`à•œa)œan,Áæååãā]}æhÁ[`¦&^•Á;Á;[ˇơåÁ`}[—LÁ;!Á		⊠Á	ΠÁ	∏Á
å DÁQÁ Á [[å Á © ece æ å É Á or `}æ á Æ Á [¦Ár^& & © Á [}^• É Á ã \Ár ^æ ^ Á [. Ár][`æ ð or Ás`^Ás[Á; [b^& 6As]`}åææā]}ÑÁ	□Á	□Á	ΠÁ	⊠Á
^DÁÔ[}- 38x0Á; ãx0@Á; Á;à•dˇ&oÁā[] ^{^}o}cææā[)Á;-ÁæÁ; ææ^¦ÁŤæájāčÁ &[}d[Á; æ)Á;¦Ář•cæā]æà; ^Á; [ˇ}å; ææ^¦Á; æ)æ*o^{^}oÁ; æ)ÑÁ	∏Á	∏Á	⊠Á	∏Á

[~Ēāc^Án¦[•ā[}ĒÁ][||ˇc^åÁiˇ}[~Á[¦Án¢&^••āç^Áiˇ}[~Ác@æcÁ&æě•^åÁ|[[åā]*LÁā[]^å^åÁ;¦Án^åāî^&c^åÁ|[[åÁ -|[¸•LÁā(^åÁæÁn)|^æ•^Á[-Á][||ˇcæ)•o-Áà´^Á[ÁB]ˇ}åæaā[}ÁæÁBjÁæÁ|[[åÁ@æeæååÆÁoˇ)æ€äÁ;¦Án^å&@Á[]}^LÁÁ[;Á &[}-|æ&c^åÁjāc@ÁæÁjæc^¦Á*ææ^¦Á *ææhÁ *ææhÁ; Ak*•cæājææì|^Át¦[ˇ}叿æh¦Á;æ)æ*^{ ^}oA;|æ)ÈÁ

9 bj]fc ba YbHJ' GYH]b[.ÁOĒ;^¦æt^Á¦æāj-ædþÁājÁW\ ãæ@Áā Á•|ā @q^Á|^••Áo@æţÁH Áāj&@•ÈÁT [•oÁ[-Áo@Á] |^8ājāææāj}Áædþ•Áa*¦āj*Áœ∮ājo°¦ÈÄÜæājædþÁājÁW\ ãæ@Áājo°}•^Áa[;{•ɸ@æk@Á[ç^ÁājÁ;[{Ás@Á}}[¦o@ ^•oÉÁkāc ædþÁj[ÁæājædþÁj[ÁæājædþÁj[4 Áso Á*];] o@ ÉÁÁ

8]gW gg]c b. Áfu! V / `YtÁ@ gg 'h Ub 'g][b] ZWUbhi]a dUWHÁØ č ¦ Áå^ç^|[] { ^} Ø, [` |å Áæå@ ¦ ^Á[ÁæļÁ æð]] &&æå|^Á, æœ^Áåã &@æ* ^Á, ` `ā^{ ^} œ Éð/@ |^ { !^ Éð@ ÁÚ|[b/ &ø, [` |å Å; [Ø, ā] |ææ^Áæ) ^Á, ææ^!Á `ææî Á *ææî Á *ææ] | &ææ åæå • Éð/ ææ^!Á @ææî • Á, āļ Áå ^Áæ, Áæ ^Ç^|[] ^ å Áæ Áæ@ ÁÚ|[b/ &ø, [` |å Å; [Ø, ā] |ææ^Áæ) ^Á, ææ^!Á ææ^!Á ææî Á Ó O Ó Ó O Ç^|[] { ^} Ø, Ó Úæb &/|• LÁÆ]] ![¢ā ææ/| Á ææî | A ÆÐ & ææ] | • Áæ] |

fly[]]]L'@/gg'h\Ub'g][b]Z]WUbhi]a dUWhk |h\`a]h][Unjcb']bWcfdcfUhYXEOE Áåã& *••^åÁā ÁÙ^&cā} À ÉÁ Óā|[*ā&æ\ÁÜ^•[`¦&^•Êc@ÁÙc'å^ÁOE^æ&&[}cæā]•Áç[ÁÇDÁÔ]æ•ÁŒA, æ&\&[`¦•^•Áæ}åÁ[`¦ÁÇDÁÔ]æ•ÁŒA, a&\[`e^*Áæ}åÁ[`;ÁÇDÁÔ]æ•ÁŒA, a&\[`e^*Áæ]åÁ[`;ÁÇDÁÔ]æ•ÁŒA, a&\[`e^*Ác@æÁ, a\[`e^*Ác@æÁ, a\[`e^*Ác@æÁ, a\[`e^*Ác@á];[]][•^Áæ}ÅÁ[]&[`e^*Áæ]^Á { [åãã&æā]}•Á[Á¢ã;a]*Á\$[;c^!o^A, a\[`e^*Aæ]*Á[]*[ç^{ ^}c^!EÁ@Á];[b\&EÁ\$, &|`åä]*Á\$[]![ç^{ ^}c^!AÁ@Áæ&&^•Á![æåÁæ]åÁ~č'!^Á!^•ãa^}cæa|Á&[}•d`&a]}ÁQ}A¢J[]&A¢J[] { ^}cÁUæ&A|•DÊA, [`jåÁ!^•`icåā æā]}Á

T^æe~`¦^•ÁÕÒUËFÁæ)åÁPOZËFÉÁ;¦ã[¦Áq[Áæ)^Á*;[~`}åÁåãcč¦àæ)&^ÉÁ\[•ã[}Áæ)åÁ•^åã[^}çÁ&[}d[|Á]|æ)•Á • @cd|Áà^Á• `à{ ãcc^åÁq Ác@ ÁÚ `à|&BÁY [¦\•Ácd) åÁÔ[{ { `}ãc ÁÖ^ç^|[]{ ^}cÁÖ^] ædq ^}c•Á{¦Á\^çã\, Ácd) åÁ æ]] ¦[çæ|Áæ) åÁ•@æ|Áã,&|`å^ÁÓTÚ•Áɗ,Áæåå¦^••Á•[ã|Á^¦[•ã|}Áæ) åÁ•ɗ;¦{ æ°\¦Á¦`}[~ÆÁŒååããã[}æ||^ÆÁ 8[]•d'8da[]A];[b'8d•ÁdææÁ,['|aÁaãc'kaÁ{[|^ÁdœæÁ,A[]-ÁdœæÁ,A[]-Ádæ&|^Á[]-Ádæ}àÆ,['|aÁá^Á•'àb'8dÁdÁc@A ¦^``āl^{^}o•A[~ÃO^}^\andAO[}•d`&aa[}AOBBaaçacAO[¦{]abAO|}ae\AO|}o•d`&aa[}AO^}\andAO|}ahAO|}ahAO|}ahAO|}ahAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|aaAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|&aaAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO|}abAO| $C \in U \stackrel{\text{def}}{=} = C \stackrel{\text{def}}{=} =$ ā[]|^{ ^}oÁ•o[¦{ , æe^¦Á&[}d[|•Áæ);åÁå^ç^|[]ÁæÁÙo[¦{ , æe^¦ÁÚ[||ˇoā[}ÁÚ¦^ç^}oā[}ÁÚ|æ)ÁŒ]YÚÚÚDÁ ãå^}cã-âj*Á-]^&ã-ã&AÒTÚ•ÁqÁà^Áqi]|^{ ^}c^àÁqíÁ\na*&^Áo@Áæ{[`}oÁqÁ-^åã;^}oÁæ)åÁqc@⊹Áj[||`cæ)orÁ Ö^ç^|[]{^}œ^OE`|^^{^}}oÁd[^•Á}[œÁ]@Á]&|`å^Á•]^&ãã&Áå^ç^|[]{^}œÁa^•ãt}•Á[¦Á]¦[][•æ4•ÉÁ}[¦Áå[^•ÁãÁ * læj oÁæj ^Án j cæjn { ^ j œ Á[lÁsh ç^|[] { ^ j dÆvo c l^A@ ` • aj * Áj l [loò &o Á allÁs ^Á ` à loò &o Át ÁÔ[` j c Áæ) å ÁÔæc o Á å^ç^|[]{ ^}oÁ+oæ)åæbå•EÁà`āþåaj*Áæ)åÁ+æ^cîÁ&[å^•EÁaj&|`åāj*Á\^çā\;Á[-Á+o[¦{;æe^¦Á(æ)æ*^{ ^}oÁ] | a&&a&^• ÉÁ, @ | ^ Ásql] | a&eaà | ^ ÈÁGÁ* c' | ^ Á, [| \ Á\$j, Á; | Ásqå bæ&^ } cÁ; Ásq) ^ Á; - Ás@ Á; c@ | Å, æe^ | &[` | • ^ • Æ; | &&` | ç^ | c• Å æhÁj¦[][•^ååÆó@ÅÖhç^|[]^¦ÁæÁh^`jãhåÁq[ÁjàœæãjÁj^&^•æhÁh*`|æe[¦^Áj^¦{ãæÁ[¦{ÁœÆj}/}ææÁ $\ddot{O}^{\ }$] æd $(^{\ })$ $O(^{\ æ•[&ãæe^åÅÁ ão@Á^¦[•ã[}Áæ)åÁ•d[{ . æe^¦Á|`}[~Á [ˈ|åÁà^Á`Ygg ˈh\ Ub ˈg][b]Z]WUbhik]h\ `a]h][Uh]cb ˈ]bWcfdcfUhYXA

fKKĽBc˙]a dUNNHÁOĒÁå^•&¦āā^åÁæà[ç^ÊÁœÁÚ![bʰ&ơÁæÁ][ơÁ[&ææ⁴åÁ¸ão@¾ÁæÁœˇ}æ∢ãÁ@ææååÁ[}^ÊÁæÁ ﴿[[åÁ[}^ÊÆæÁæå^}œãð*åÁaˆÁœÁæ⁄ÁæÁó%á°/å^¦æÁÓ{^!*^}&^ATæ)æ⁴^{ ^}ơÁOĒ^}&îÈæA

A]h][Uh]cb AYUgi fYg.

Q] |^{ ^} cæa } / (~; 9C!%UbX`<5N!%"

%%" @UbX'l gY'UbX'D`Ubb]b['

@5 B8 T G9 T5 B8 TD@5 BB=B; ĔÁY [ˇ åÁv@Á¸¦[b^&dÁ	Ú[ơ} యేజ ^Á Ùāt} ãā&a) oÁ Qi] aa&oÁ	Š^••ÁV@æ)Á Ùāt}ãa8æ)oÁ ,ãa@Á Tãaātæaā[}Á	Š^••Á V@ajÁ Ùa"}ãa38aajoÁ Qi]æ3oA	Þ[ÁQ]æ&oÁ
æÐÁÚ@•a8æa ^Ásáōçãã^Áæa;Ár•cæà ã @°áÁs[{{ `}}ãĉ ÑÁÁ	∏Á	∏Á	⊠Á	∏Á
à DÍÔæĕ•^ÁæÁrāt}ã&Bæay cÁ^}çā[]{ ^}œ4Áq[]æ86óhå*^Áq[ÁæÁq[]-Æ86Á ¸ãc@Ánay^ÁjæyåáÁr•^Áj æayĒd][æ86Ēq[¼^^* ææā]}Áæå[]c^åÁq[¼Ó@Á]*!][•^ÁpÁæç[ããā]*Áp¼áæã2æã3*ÁsyáA}çā[]{ ^}œ4Á~~&chVÁ	ΠÁ	ΠÁ	ΜÁ	ΠÁ

Á

Ø`¦c@¦Á¸^•cÁQ¸¸¸8|¸åä¸*Ác@ÁÚ¦[b\8cÁ+ãc\DÁō;Á¸¸å^ç^|[]^åÁ¸[]^¸Á+]æ&^Éæ;åÁ+c^^]Éå^}•^|^Áç^*^cæc^åÁ
æ^aÆj;c'¸¸°¸å¸åc¸å¸åcøÅ¸¸åæÅ¸°¸åcøÅ¸åæÅ¸6°¸å¸åæ¸ÅČ[¸¸å¸åå¸å忏常ÈV@ÁÕãcÃ,—ÁW,ãæøÆ;Ÿ[ç^¦}^åÁ
à^Ác@ÁÕãc q;ÁÕ^}^¦æÁÚ|æ;ÁÇæå[]c°åÁ¸AÆjJÍÉAæ;cÁ,°çã^åÁ¸AŒFJDÆ;ååAW,ãæøÁÖācÁÖ[å^ÁÇNÔÖDĚAV@Á
|æ*^¦ÁW,ãæøÁXæH^^Áã;Á*[ç^¦}^åÁà`Ác@ÁW,ãæøÁXæH^^ÁŒF>æÁÚ|æ;ÁÇVXŒLÚAGEFFDɸæ&øÁã;ÁæÁ
&[{]¦^@}•ãç^Áæ;åÁ[}*Áæ;*^Áæ;c'¸EÖ¦äåå&æ¸á}æÁ;}æÞÍ;|æ)}ä¸*Áå[&`{ ^}cÁœæÁ^]¦^•^}cAœæÁ^];^•^A
&[{]¦^•ã;æÁ,Áæ;åÁ[}*Áæ;*^Áæ;c'¸EÖ¦äåå&æÁ
&[{]¦^°å;æÁ,Áæ;åÁ[}*Áæ;*^Áæ;c'¸EÖ¦äåå&æÁ;}æÞÍ;|æ)}ä¸*Áå[&`{ ^}cÁœæÁ,A]¦^•^}cAæ;åÁ;
AcoæÁ[,AcoæÁ],AcoæÁ],A[]|^Á,@,Áæ;åÁæ;åÁæ;Áæ,Áæ,ÁW,ãææÁXæH^^ÈXVæ;Á]|æ;Á*[ç^¦}•Áæ;åÁ*•^Áæ;åÁ
å^ç^[]{ ^}oÁ;}&æÁ;}å&[¦][¦æc°åÁæ;倯;Áæ;Áæ)ÅW,ãææÆ;AæH^^ÈXVæ;Á]|æ;Á*[ç^¦}•Áæ;åÁ*•^Áæ;åÁ

fWc @/gg 'h Ub 'g][b]ZWUbhja dUWf\(\text{A}) \@\A\(\text{a})
[ÁT^}å[84][qÁĎ lã å å 8c4]} Á ác@ÁM] |æ) å ÁÜ^•ãå^} cãæþÉM €Ëæ&l^Á(∄ ã ˇ {ÁÇMÜK €DÁ[}∄ * Ååã d ð 8cdÉA Ô[}•d ˇ &c4]} Á[ÆÁ¢A Áª ÉÐ ð @Áæ) å Á][cÁ ČQ Á° Ÿ Áçæ Áª Ÿ Áçæ Áª Áæ] A [ĕ å åæ Áæ] A [ĕ å åæ Å¸ Áçæ Áª Ÿ [ĕ å åæ Å¸ Áçæ Áª Ÿ [ĕ å åæ Å¸ Áçæ Åå Ÿ [ĕ å åæ Å¸ Áçæ Åå Ÿ [ĕ å Åæ Ÿ Ææ] A Ÿ ææ Å Å¸ ææ Å¸ Åæ Ÿ Åæ Ÿ ææ Å¸ Åæ Ÿ Ææ Ÿ Ÿ Æ

V@ ÁÔãĉ Á,¦[][•^•Ág Áæ)}^¢Áæ]}[¢ã[æe^|^Âil€Áæ&¦^•Ág œæ†É&[||^&cãç^|^Á^-^¦¦^åÁg Áæe Ás@ ÁsÔ[}•^¦çæeã[}Á $\dot{\Delta} = \dot{\Delta} =$ $U] ^ AU = 2$ AU = 2 ^}&[{]æ••^•Áæ;å•Á;ão@;Ás@AÔãcÁs@æa&[}cæā;Á;]^}Á]æ&^Áæ;åÁ;æ4\•ÉðæeÁ;^|ÁæeÁ;c@¦Á;`à|&&Áæ&ãjããã•ÉÁ OB&[| åāj * | Êòo@ÁÔ[} • ^ | çææāj } ÁÚæ & ^ | • ÁQJ &| * åäj * Áæj] | [¢ãj ææ ^ | ÁGJ Í Áæ& ^ • Áj &ææ å Á * œ ãå ^ Áj ~Áo@ÁÚU ODÁ æċ^Ái¦[][•^åÁgíÁà^Ái¦^:[}^åÁÚØÁÇão@ÁœÁÚú`à|ã&+ÁÔ^}^¦æþÁÚ|æ}Áæè;åÁ•^Æå^•ã}æaā}DÁ;@ã&@Á]^&ãã&æþ|^Á aå^}cað • Á, `à|að Á, 'à|að Á, 'að A, 'að Á, 'að A, 'að Á, 'að A, 'a aa) åÁlael\•Ása) åÁl^&l^æasī} ÈÁV@AŠaa) åÁN•^ÁÖ|^{^} oÁl Ás@AFJJÍÁÔãCÁLÁNN ãæ@ÁÕ^}^\abÁúlaa) Álææ^•Ás@æA c@ ÁU`à|&&ÁQ`JDÀ|æ}åÁ`•^Áå^•ã'}æ\$1}Àã;Áã;Áå;c^}åÅå;C^}å^åÅå;F;Áj`à|&&Áæ&á;Ãã°A•Áæ Á;^|ÁæAí]^A;Á•]æ&A^Âæ}åÅ æ ÁÔælj^||æÆÁVæl{ æ*^Áæ}åÁc@^ÁØ[¦\•DÆ{ æ•c^¦Áj|æ}Áæ+^æÆÁæ}åÁæ+^æÁ, ãc@jÁc@^ÁÔ^}^¦æ‡ÁÚ|æ}•jA W} ¾ &[;] [| ææ^å/ÁÚ|æ) } ¾ * ÁŒ^æÁÇ&* ; | ^} d^Áœ Á; æ; ^Áè[* } åæ; Áæ; Áœ ÁO@ÁNXŒÚÁæ); åÁc@ÁÔãc œ Áæå; [] c^åÁ ÙU ODDÉÓ^8&ĕ•^Ác@Ájæl8^|•Áqic^}å^åÁqikA[¦Áqi]^}Áq]æ8^ÁÇãc@jÁc@ÁÔãcqiÁ&;¦\^}cÁÙU ODÁæeÁæ4jækáqíÁc@Á Ú¦[][•^åÅÚ¦[b^&cÁæb^Á, ão@a, Ác@-ÁJÍqÁÖ^}^¦æþÁÚ|æþqÁW}ā,&[¦][¦ææ^åÅÚ|æ}}ā,* ÁOE^æÆc@-Áj¦[][•^åÅ. æ)}^¢ææā[}Áæ)åÁj¦^:[}ā]*Á[-Ác@Ajæ&^|•Ác[ÁÚØÁÇão@ÁœÁÚÁÕ^}^¦æ)Áæ)åÁ`•^Áå^•ã}ææā[}DÁæ;^Á &[}•ãrơ\}ơÁ, ão @Áo@ Áā;ơ\}ơÁa; åÁa; åÁa; åÁ.•^•Áãà^}; ããa åÁ, ão @ã; Áo@ ÁJÍ qÁÕ^}^¦a; ÁQ Áa; åÃo; Áo@ ÁÔãc Á&a; Á cajã ^ Ásop Áj æk\ • Áj ¦ å āj æj &^ ÁQÔ āçã āj } ÁFÊÔ @æj c^ ¦ ÁFGÁj -Ás@ ÁNN ãæ@ÓÔ āc ÁÔ[å^ DÁj Áj ¦ [çãà^Á ǐ |^ • Át [ç^ \ } āj * Á Ôãô Áce) åÁn, `à|B&Á•^AÁn, ~ÁÚØÁ[}^åÁn¦[]^¦ô ÈÁN} å^¦ÁÔ[ç^¦}{ ^}œÁÔ[å^ÁÛ^&cá[}ÁnÎÏ|GÉÁsãô Ё;ై}^åÁn æd&^|•Á æk^Áj[ơÁ^ˇ ã^åÁţ Áà^Á[&æe^åÁ¸ão@jÁo@ÁÔãĉ ŒÁÙUŒĚÚæk&^|•Á&æ;Áà^Á[&æe^åÁæ;^;@¦^Á§iÁo@ÁÔ[ˇ}ċÊÁ æ Á[] * Áæ Ác@^Ácd^Á/••Ác@) ÁH∈€Ác&¦^•ÉA;} ^åÁa^Ác@ ÁÔãĉ ÉÉc; åÁ • ^åÁ[¦Á(*) å&a æÁ; *|] [•^•ÅæÁc@ Á $\vec{\alpha}$ \vec{A} a)}^¢æaā[}Áq[cæa+Áæa+]¦[¢ã[æae^|^ÁGJÎÁæa&¦^+ÉÉæa+åÁ,āl|Áà^Á`}å^¦Á&ãcÁ[.}^¦+@āAÁ;¦Áf]^}Á+]æ&^ÉÉc@áÁ][¦aā[}Á;¬Ás@^ÁÚ¦[b^8cÁsē/Ás[}•ã•c^}oÁ;āc@Ás@ ÁÖ[ç^¦}{ ^}oÁÔ[å^ĒÁ

\(\text{\Omega}\) \(\text{\Omega}\) \(\text{\Omega}\) \(\delta\) \

P[,^ç^\£Ác@^Á] ||][•^åÁÖ^ç^|[]{,^}oÁOE |^^{,^}]oÁ,[`|åÁ'^•dæAcA*^c^|[]{ ^}oÁq[Á[}^Á*ā]* |^Áæ4;āîÁ å [^||a] * Á| ^¦Á| æ}&^|Áæ} åÁ[} ^ÁŒÖWÁÇ¢&^] œÁ[¦Áá] Á&æe^•Á, ^¦^Áœ@Á•|[] ^Á^¢&^^å•Á €Á] ^¦&^} œÆ] ^¦Áo@A Ôão q ÁP aļo aã^ÁUç^¦|æê ÁU¦å ajæ) &^DÉA;¦ÁæÁq[œ4Á;Á]Áq[FIÁ;}ão EÜFÉPÁ:[}aj*Á,^˘ă^o ÁæÁ;ājaj~´{Á|[oÁ •ã^Á; ÁFCÍCCCÁ•ÁÇEÍCHÁxx&!^DÁ; ¦Á; x±&^|•Á; ão@ÁxÁ•|[]^Á; ÁGEà LÁ; ā;ā; ˇ{Á; oÁ•ã^Áā; &!^æ•^•ÁxæÁo@Á • [[] ^Á[Ác@ Á] æ&^|Áa &|^æ^• Étæ Á[`da ^åÁa ÁNÔÔÁÙ^&a] ÁJFHJÉHillside Development StandardsÉA Ô[}•ãc^}o^}ā@^b@•^^Ácæ}åæå•Êb@^Á^•`|cã;*Ájæ&^|Á&[}~ãt`¦æaã[}Áj¦[][•^•ÁiÊT€Ásæ&!^ÁÖ^ç^|[]{_^}oÁ Úæl&^|•Áo@ædÁ, [ˇ|åÁà^Á]¦^:[}^åÁ%ÜFËP+ŘÁPˇ||ÁÚ¦[]^¦æð•Á¦^&^}d^Á¦^&[¦å^åÁ•^˘ˇ^}œæþÁŠ[cÁŠã]^Á OTảbŏ•q{^};•Ác@{`*@Ác@^ÁÔ[`}c°q•Á{ ājārc^¦ãæ;;4Á]¦[&^å`¦^•Áæ;)åÁ, ā|,Á•`à{ ãcÁ•^``^}cãæ;;4ÁŠ[cÁŠāj,^Á ¦^• ` |caj * Áj ¦[] [• ^ å Áj æ 8 ^ |Á8[] - æt ` ¦ææti] } Á[¦Ás@ ÁÖ^ç^|[] { ^} cÁÚæ 8 ^ |• ÞÁOÐ 28[] ^ Áj -Ás@ Áðj æ ÁA^8[¦å ^ å ÁŠ[cÁ Šāļ^ÁÓĒĀBĎ•ct¯^};œĒĒ\$^]āBc^åÁó@Á9Ju¦[][•^åÁSBĪ}-āt¯¦æĒāĪ}+Á;@;}ÁBļÁOĒT`¦^ÁHāļÁā^Ár`à{ānc^åÁq[Áo@Á Ô[{{~`}ācAÖ,ç^|[]{^};œÖ^]adct_^};øJ¦ā[At]Ág]Ak[Ár`à{āncapAj-ÁsæAVÞ^ÁÚ/¦{āpÁ;!Áā,*|^Áæ;āfÁQ}*•āj*Á,ānc@jÁ Ö^ç^|[]{^}œÁÚæd&^|•Á\ÉËËÄÜ^çã?¸Á;Ás@ÁŠ[œÁŠā]^ÁOZāB`•d(^}œÁ,ā|Ása^Á&[}å`&c^åÁsî^Ás@ÁÔãcÁÒ}*āj^^¦Á ÜFËPÁ[}ā]*Á&ãda&AæAÁ; ^dĚAO*¦c@\ÊAc@[**@Ác@ÁN+^ÁÚ^¦{ãAÍ;[&^••ÁQ;¦ÁÚæ&&\|•Á;EÏDÁæ}åÁÔÔBÜÁ ¦^``ā^{^}o•ĒÁ^o&ÈDÁ8[}cæā;^åÁ, ão@á,Ác@ ÁPāļ•ãa^ÁUç^¦|æê,ÁÖã•dā&dĚÁÖ^ç^|[]{^}oÁ,ão@á,Áo@ ÁPāļ•ãa^Á Uç^¦|æÀÖãdãkoÁã,&|¸å^•Á•¸å{ãœáÁ[-Ác@Á-[||[, å,*kÁ•[ākáa)åÁ*^[|[,*åkækÁ¦^][¦œÉÁ•¸à•¸å•¸¦æ&^Á ãiç^•cãtaeaãi}•ÉA*¦asåãj*Á]|aa}•ÉAç^*^caeaãi}Á¦^][¦o•ÉA*¦asåãj*Á]|aa}•ÉA@å¦[∥[*^Á'^][¦o•ÉAæ}åÁ•d`&c`¦^Á ^|^çæaqī}•ĒĖÒæ&@Á@{`^Á¸[`'|åÁ^```ã^Áæqi]¦[çæqÁ;ÁæóAÓ`āåáā;*ÁÚ^¦{ãoEÁ;@ã&@Áā;&|`å^•Áæååãáqī}æqÁ^çã\;Á æ) å Áæ)] ¦[çæ)Áàˆ ÁÔ[ˇ} cˆ Áæ) å ÁÔãcˆ Áå^]æ d (^} o• ÈÁ

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ad DÎU ^ • ` ofāj Ás@ Á • • Á; Ásaç adajanà ãão Á; ÁsaÁ; } [, } Á; āj ^ ad Á^ • [` &^ Á c@ad Á; [` á Ása ^ Á; Á; ad; ^ Átj Ác@ Á ^ * āj } Ánd; å Åc@ Á ^ • ās ^ } o Á; Ác@ Á • cade^ NVÁ	ΠÁ	ΠÁ	ΠÁ	⊠Á
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9 bj]fcba YbHJ`GYH]b[.`V@Á([•ÓÁ]¦^å[{ā)æ)ơÁ(Ā;@Á(ā)^kæ)Á[`}åÁājÁT^}å[&ā,[ÁÔ[`}cÁæ)^Á æ**'^*ææ^Á;^•[`'k&^Á(ā)^kæ)ÊÄ;kā(æ)åÁæ)åÁæ)åÁæ)åÁ*kæ;^|ÊÁ;`}åÁæ;[}*Á(æ)^Ááā;^\•Áæ)åÁ*d^æ,•ÈĀV@Á Ø[¦åÁÕ;æ;^|ÁÓæ;•Áæ;^Á(&æ;°åÁājÁN)ãæ;®Éæ;|}*Á@ÄÜ`••ãæ)ÁÜā;^\ÈÁ

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agūÁÕ^}^¦æqā[}Á[-ÁæÁ•ˇà•æa;cãnqÁæ{4°{][¦æá^Á[¦Á]^¦{æà^}oás]&!^æ^Ásjáæ{àæ}oá,[ã~Áf^ç^ •Ásjáæ]áæ}á çæßājæcÁ[-ÁœAá]¦[b^8cÁājÁ^¢&^••Á[-Á•æa)åæå•Á ^•ææàjæ@åÁājÁc@Á [&æqÁ*^}^¦æþá] æþá[¦Á}[ã^Á [¦åājæà)&^ÉÁ[¦Áæ]] ã8ææì ^Á•ææ)åæå•Á[-Á[c@¦Á æ*^}&æ*°}%		⊠Á	ΔÁ	ΔÁ
à DÁÕ^}^¦ææā[}Á[-Á\¢&^••āç^Á;[ˇ}åÁs[¦}^Áçāà¦ææā[}Á [¦Á;[ˇ}åÁs[¦}^Á;[ãr^Á/°ç^ •ÑÁÁ	∏Á	□Á	⊠Á	∏Á
8DÁO[¦ÁæÁ]¦[Þ\&oÁ [&ææ^åÁ¸ão@ţÁc@Áçæðājão´Á[ÆæÁ]]¦ãçææ^Áæá]edājÁ;¦ÁæÁ]¦ãçææ^Áæá]edājÁ;¦ÁæþÁæá][¦oÁæð;åÁ•^Á;læð;Á;[Á;æ¦^A •`&@ÁæÁ]læðÁææ•Á;[oÁs^}Áæá]]œ^åÆÁ;ão@ðjÁç;[Á;ā/o@A [ÆæÁ]`à]æðÁæá][¦oÁ;¦Á]`à]æðÁ•^Áæá][¦dÆÁ;[`jåÁo@Á]¦[b\&oÁæ∂;æÁçÁr¢&V••ãç^Á;[ãr^Á/°ç^ •Á		□Á	⊠Á	∏Á

 $\begin{array}{l} \textbf{G][b]Z]WLbWY`7f]HYf]U. ``V@ÁÚ|[b\&cA, [`|åÁ@æç^ÁæA+ã] ãã&æ) cÁā[]æ&c⁄ãÁãAčc\{][|æ$ā`Á;\Á,^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{a},^|{$

ΙÌÁ

Á

9bj]fcba YbhJ 'GYhi]b[. '' \@ Á\\ āæ@Óāć ÁÔ[å^Á\] } cæā • ÁæÁÞ[ã^ÁU ¦ åā æ) & ÁÇĎāçãā ā} ÊÔ@æ] c \ ÁFÊÁ

OEcæl^ DÁcœæÁ• cæà |ā @• Áæ; àā\} cÁàæ• ^Á; [ã^Á; cæ) åæå • ÁcœæÁæ]] | Áţ Á; Á; Á;] ^ &ãæ&Á [} ā; Ååã c æo Á

¸ãc@j Ác@ÁÔāć Á; Á\\\ āææĚ\GE; àā\} cÁ; [ã^Á; Áœ) Áæ] E' } &[{]æ•ā; Á} [ã^Áæ• [&ãææ*åÁ, ãcæÁæ*á; Ã; Á

^} çā[] { ^} dÊà^ā; Á • `æļ ^ÁæÁs[{][•ãr^Á; Áe[* } å•Á! [{ Á; æ) ^Á[* !& • Å; ^æ& Áæ] åÁæ†ÈZ[!Ác@Á; * !] [•^Á

[-Ác@ÁÞ[ã*^ÁU ¦ åā; æ) & Êæ; àā\} cÁ; [ã*^Árç^|Áā Ác@Á*ç^|Á; àcæā; ^åÁ; @} Ác@Á; [ã*^Árç^|Áā Áæ; * !æ*^åÁ

[ç^!ÁæÁ, ^!ā; å¼ -Áãæ^^} ÁÇĒ DÁ; ā; c*•Á; āc@*óæÁs@; (ā) æå; Aí; Á; Á; ācæā; ^åA; @} ácæá; ^åæ*^} cãææá|^Á; * Á*o*^å; Æ*o*^å; æ

Table 2. City of Ukiah Ambient Base Noise Levels

Ncb]b['8]glf]Wfg'	H]a Y'DYf]cX'	Bc]gY'@/jY''GHUbXUfXg'fK65Ł'
ÜFÁs) åÁÜGÁ	F€IÆ€ÁÚTÁÄÄ IÆ€ÁÓÐ Á Ï IÆ€ÁÚTÁÄF€IÆ€ÁÚTÁ Ï IÆ€ÁOÐ EÏ IÆ€ÁÚTÁ	I €Á I Í Á Í €Á
ÜHÁ	F€J€€ÁÚTÁÄÄ V€€ÁQETÁ Ü V€€ÁQETÁÄÄF€J€EÁÚTÁ	IÍÁ Í€Á
Ô[{ { ^ &ãa‡Á	F€J€€ÁÚTÁÄÄ V€€ÁOÐÁ ÏV€€ÁOÐÁÄF€J€€ÁÚTÁ	Î €Á Î Í Á
Olåĭ∙dãed√hBÁ Tæ}ĭ~æ&sč¦āj*Á	CEţ^Ácaţ^Á Á	Ï €Á Á

Source: Ukiah City Code §6048

Table 3. Maximum Noise Levels Associated with Typical Construction Equipment

Á HmdYcZ9ei]da Ybh	@a UI 'Uh'%) ': YYhifK65ŁÁ
Ô[}&\^&\AÛæ; Á	F € ÉÁ
Ôlæ}^Á	JFÁ
Ô[} &\^ c^ÁT ãc^\Á/\` &\ Á	ÌJÁ
Óæ&N @A^Á	ììÁ
Ö[: ^¦Á	JGÁ
Ò¢&æçæ[¦Á	JFÁ
Ø[\ ãoÁ	ììÁ
Úæç^¦Á	ìÏÁ
Ü[^¦Á	J€Á
V¦æ&q[¦Á	JI Á
Y æ&\¦Á/¦`&\ Á	J€Á
Õ¦æå^¦Á	JÍ Á
Õ^}^lælÁQå*•dãælÁÒ``ā]{ ^}oÁ	JÍ Á

Source: Federal Highway Administration. 2006. Roadway Construction Noise Model (FHWA-HEP-

A]h][Uh]cb AYUgi fYg.

aeEÁÔ[}•dˇ&cā[}Ás[}dæsto•Á•@ed|Á•]^&ã^Ás@eeÁæd|Ás[}•dˇ&cā[}Á^ˇˇā]{^}dÉAāc^åá[¦Á;[àā]^ÉÁ•@ed|Áà^Á ^ˇˇā]]^åÁ¸ão@Á]¦[]^¦|^Á[]^¦æeā]*Áæa)åÁ(æaā]cæā]^åÁ(ˇ~-|^¦•Áæa)åÁ(cœº¦Á•cææ^Ë^ˇˇā^åÁ}[ã·^Á æec^}ˇæeā[}Áå^çã&^•ÉÁ

& BÁ Ő ʿ¦ā; * Ás[] • d ˇ & cā[} BÁ canā[} and Śks[] • d ˇ & cā[] Ár ˇ ā] { ^ } cÁ @ ch|Ás ^ Á; | and \$ År ` & @ And @ ch|Ás ^ Á; | and \$ År ` & @ And @ ch|Ás ^ Á; | and \$ År ` & @ And @ ch|Ás ^ Á; | and \$ År ` & contains
å ÈÁ Ú^¦Ás@ ÁÔāĉ q ÁÞ[ã ^ÁÚ¦åãj æ) & ÊÉ&[} • d`&aqī} Ár @æ|Á;[cÁæà ^Á;|æ& ^Á;|æ& ^Á; Ás@ ÁQ;`¦•Á; Æ ÉÁ æÈ ÈÁ; Ái K∈€Á ÈÈ ÀÍ

% " Dcdi `Uf]cb UbX < ci g]b['

DCDI@5H+CB·5B8· <cig+b; [ˇ àán@á]:[២&dáá<="" th="" ďáy=""><th>Ú[& } @ a a a a a a a a a a a a a a a a a a</th><th>Š^••ÁV@a)Á Ùāt}ãa&a)oÁ ,ão@Á Tãaātæaā[}Á</th><th></th><th>Þ[ÁQ]æ&oÁ</th></cig+b;>	Ú[& } @ a a a a a a a a a a a a a a a a a a	Š^••ÁV@a)Á Ùāt}ãa&a)oÁ ,ão@Á Tãaātæaā[}Á		Þ[ÁQ]æ&oÁ
aaDÁDD, å'&^Á*à•caa) caadA^{] aa)}^åÁ,[]* aaa[}Á*¦[, c@Ás,Ása) Ásd>aaEA ^āc@¦Áåā^&d^Á;C;¦Á^¢aa{] ^EAà^Á;}![][•ā,*Á;^,Á@{ ^•Áaa) åÁ à*•ā,^••^•D[¦Áā]åā^&d^ÂÇ;¦Á^¢aa{] ^EAc@[**@Á^¢c^}}•ā[}Å;-Á ![aaå•Á;¦Á;c@¦Ás,+aa•d*&c* ^DÑÁ	<u> </u>	ΠÁ	⊠Á	∏Á
à DÁÖ ã*] æ&^Á*à•œa) cãædÁ*{ à^!•Á;Á*cã*cā;*Á;^[] ^Á;!ÁQ*•ā;*ÉÄ }^&^••ãææā;*Á c@Á &[}•d*&oã;}Á[-Á: ^] æ&^{^}oÁ QQ*•ā;*Á ^ •^;@!^ŇÁÁ	ΠÁ	ΠÁ	⊠Á	ΠÁ

9 bj]fc ba Ybhu' GYhh]b[.ÁV@ÁÔãcÁ[-ÁW\ãæ@ÁS[{]¦ãr^•Á[-Áæ]]¦[¢ã[ææ^|^Á|ĒGÁ•` æ^AÁ[āf^•Á]āœ]Á T^}å[&ā][ÁÔ[`}cĒÓB&[¦åā]*Á[ÁœÁÔæā[¦}ãæÁÖ^]æd(^}cÁ;-ÁØ]æd, &^Ēk@Á][]`|ææā]}Á§ÁœÁÔ[`}cÁ [-ÁT^}å[&ā][Á]æAíJĒÌÍÁā]ÁŒFÌÁæ}åÁŒFÌÉæ]åÁFÎĒŒĴÁā;ÁœAÔãcÁ[-ÁW\ãæ@ĚV@ÁÔãc႖Ad)`æÁ*¦[] cœÁæ*Á à^ç^}AFJJ€Áæ)åÁŒFÌÁæç^¦æ*^åÁæ†]¦[¢ā[ææ]|^ÁŒĒHÃĒÓ^ç^^}ÁŒŒAæ)åÁŒ€ÆÁæ}åÁŒF€ÆÁæAÔācÁæååå^åÁIÍÁ ¦^•ãa^}œÉĀ;ÁHĒÃĒÆ[ÁæÞÁ]]`|ææā]}ÉÁUç^¦æþÆÁæAÔācÁ;ÁW\ãæ@æÅ[]`|ææā]}ÁœæÁā&I°A°

W}å^¦Ás@ AÔ[ˇ}ċq AÕ^}^¦æHÁÚ|æ)Ásè;åÁz[}ā;*ÁU¦åã;æ)&^ÊÁs@ Án}œiA^ċÁ,~Ás@ Án€ÏÁsæk!^•Áœæ Ás@ Án[c^}œiAsé) d[Áà^Áå^ç^|[]^åÁ¸ãc@Á]Áq[Á;}^Áå¸^||ã,*Á,^¦Á,€Áæ&¦^•ÊÁy¦ÁæÁq[œdÁ,-ÁĒÏÁ,¦ã;æ†Áå,^|lã,*•ÈÁQÀÉæååããã;}ÊÁ æ) ÁOXÖVVÁ, æ Ás^Ás(}•d`&c^å Áse Á; Ás @Á; Á æ&@Á; Á æ&@Á; æ &^|EÃ^•`|cã; *Áş Ás@ Á; [c^} cædÁ; ¦Á] Á; ÁH Á; cædÁ; ãe Á d Áà^Áå^ç^|[]^åĒÀV@ÁÔãĉÁ;ÃÁNNãœ@qÁÔ^}^¦æÁÚ|æqÁþa;åÁ •^Áå^•ã;æā;}Á;Ê[,ÁÖ^}•ãĉÁÜ^•ãå^}œā; (\$ÖÜDÁœ4|[` • Á[¦Áœ4å^} • ãĉ Á[-Á• ã¢Áå ` ^||ā] * Á` } 㜠Á] ^¦Áœ&!^ ÈÁN} å^¦Ác@• ^ Á!^* ` |ææā[} • ÊĆo@ ÁI I Áæ&!^• Á[¦Á ¦^●ãå^}cãad∮å^ç^|[]{^}cÁs[`|åÁs[}&^ãçæà|^Áà^Áå^ç^|[]^åÁ,ãc@Á]ÁgÁlH€Á}ã•ÈÁP[、^ç^¦ÊÁs@AÁ¦[][●^åÁ OĐÔ WÁÇ ¢&^] cÁŞ Á&æ•^•Á, @ ¦^Ás@ Á [[] ^Án ¢&^^å•Án €Án ^¦&^} cĐÁn ^¦Ás@ ÁÔ áô q•ÁP áļ•án ^Áu ç^¦|æê Áu ¦å ājæ) &^DÐÁ -{ | ÁœÁt cæÁt -Á | Át FIÁ } ão ÞÁOTc@`* @ÁÖ^ç^|[] { ^} œÁÚæb&^|• ÁFËHÁ æ Áb^Áb^ç^|[] ^åÁ ão@ Áo[`} c`qÁ $c@[**@\mathring{O}OBU\bullet EXOHAO^c^n[]{^}} & (AUA+8^)\bullet \mathring{A}[*] & (AUA+8^)\bullet$ Ö^}^¦æqÁÚ|æq}Á|æq}åÁ`•^Áå^•ãt}ææã[}DÁæq}åÁœd^Á[&ææ^åÁ,ão@q,Áo@AJÍoÁÖ^}^¦æqÁÚ|æq;oqÁN}āj&[¦][¦ææ^åÁ Ú|æ}}ā,*ÁŒ^æÆæÁ,^||ÁæÁœÁœÁ&`;¦^}œÁWKŒÚÐÙUŒÁE[`}åæ^ÊĀV@Á;;[][•^åÁÖ^ç^|[]{ ^}œÁÚæ&^|•Áæ^Á &[}•ãr♂}oÁ,ão@Áo@Ás^}•ãcÁsa)åÁsjo^}oÁ;Ás@ÁSÖÜÁsa)åÁ.•^Ás^•ãt}ææā[}Ása)åÁÜFPÁ[}āj*ÉÄÖDāåããā[}æe|^ÉÄ c@ÁFIÁ} ã Ác@ACE | ^ | aÁa^Áa^ç^|[] ^ aÁ} a^ | Ác@ÁO^ç^|[] { ^} oÁOE | ^^{ ^} oÁ [| aÁa^Á| - AÁAA] [| cai } Á Ác@Á { [å^¦æe^Áq[Áeæà[ç^Áq[å^¦æe^Ásp&[{^Áq}&se Án^~~ão^åÁn~áÁa^Ánô@ÁÔão°qÁÜPÞŒÁq¦Ánô@ÁG€FJËG€GÏÁÚ|æ}}ãj*Á Ô^&|^ÈÁ

OĒ ÁæÁ, ædoÁ, Ác@ ÁÚ¦[Þ&ŒÁ cāāāð•Á, [ˇ |åÁà^Á\¢c^) å^åÁ[Ác@Áæ+^æÆP]¸ ^ç^¦ÉÀà^&æ•^Ác@Á\¢c^)•ā[} Æ, Á
cāāāð•Á,[ˇ |åÁà^Áā, āc^åÁ[Ác@Á^ç^} ÆÖ\ç^|[] { ^} cÁÚæ&\•ÁœæÁæ+^Ƹ'; ^} d¸Á[}^åÁ[; Å
`cāāāð•Á,[` |åÁà^Áā, āc^åÁ[Ác@Á^ç^} ÆÖ\ç^|[] { ^} cÁÚæ&\•ÁœæÁæ+^Ƹ'; ^} d¸Á[}^åÁ] ; AåÁ[iÁ¸ iæÁ^•ãa^} &
å^ç^|[] { ^} cÉAc@ÁÚ![Þ&ÆÁá, &|`åå, *Áå^ç^|[] { ^} cÁ[ÁFI Á¸ }āæĒÁ, [ˇ |åÁ}[cÁåā^&d¸Áā, åš &^Á
• `à• cæ) cãæþÁ}] |æ} }^åÁå^ç^|[] { ^} cÁæ) åÁ,[] `|ææā} }Á†![¸ cÓæ¸Áæ/æ±Áæ-æ±Áv@Á^{ ææ¸å, *Âi | €Áæ&i^•ÁææA [ˇ |åÁà^Á; !^•^!ç^åÁæ-Æ] ^} Ár] æ&A¸[ĭ |åÁ, [cÁà^Áå°ç^|[] ^åÁ, ãcØÁ^•ãa^} cãæþÁ•^•Ác@æÆ[ĭ |åÁ^•ĭ |cƸÁ æ) ÁB¸&i^æ-^ÁB¸Á][] `|ææā} ÈÆZ[!Ác@Áæ;[!^{ ^} cĀ] ^åÁ^æe[}•ÉAc@ÁÚ![] [•^åÁÚ![Ы&A¸[ĭ |åÁ;[cƸå å &^Á • `à• cæ) cãæpÁ}] |æ)}^åÁ[] `|ææã[}Át¦[¸ cœÁs Áæ) Áæ; Áæ; ^æÆ* ãc@; Áåã^ &d^Á; Ás åã^ &d^ÈAQ] æ&c• Á¸[`|åÁà^ÁYgg` h\ Ub˙g][b]ZWUbh'Á
Á
fWĽ@Ygg`h\ Ub˙g][b]ZWUbhi]a dUWY'V @ÁÚ¦[b\&oÁ* ãc^Áã Áçæ&æ) oÁæ) åÁå[^• Á¸[oÁş &|`å^Áæ)^Áæ)^Á@`•ā; *Ác@æÁ
, [`|åÁà^Áåã] |æ&^寿 ÁæÁ^• `|oÁ; Ás@ÁÚ¦[b\&oÆQ] æ&c• Á¸[`|åÁà^ÁYgg`h\ Ub˙g][b]ZWUbhÉÁ
Á

%) " Di V`]WGYfj]WYg`

DI 6 @ 7 `G9 F J = 7 9 G ÉÝ [ˇ åÁs@ Á¸ ¦ [bʰ&dK	Ú[ơ} αã અ ^Á Ùā'} ã a& a) σÁ Q:] a& oÅ	Š^••ÁV@a)Á Ùāt}ãa3&a)oÁ ãa@Á Tãaātæaā[}Á		Þ[ÁQ]æ&cÁ
atガじ^・ 体育 ん * à・ ca + ca		Á	Á	Á
Øā^Á; [♂&æi; } ÑÁ	∏Á	∏Á	⊠Á	□Á
Ú[82^Á; [& 8c4] } ÑÁ	∏Á	∏Á	⊠Á	∏Á
Ù&@[•ÑÁ	∏Á	∏Á	⊠Á	∏Á
Úæ\•ÑÁ	∏Á	∏Á	⊠Á	∏Á
Uc@¦Áj`à æÁææãjããð∙ÑÁ	∏Á	□Á	⊠Á	□Á

Á **G][b]ZWUbWY7f]hYf]U.** V @ ÁÚ¦[b\&oÁ,[ˇ|åÁ^•ˇ|oÁ\$,ÁæÁ*ã} ã&Bæ)oÁ\$[j]æ&oÁ[Á,ˇà|æÁ*^¦çæA•Á;ÁæÁ^•ˇ|c\åÁ ∄ÁæÁ^ˇˇã^{^}oÁ[¦Á\$,&¦^æ•^åÁ;¦Á\¢]æ)å^åÁj,ˇà|æÁ*^¦çæA^Áæ&ãjãæð•Á;¦Árææ-āj*É\$\$,&|ˇåāj*Áã^Á;¦Á;[|æX^Á]¦[c\&cā;}ÈÁ&@[[•Áæ)åÁ,æk)•ÉÁÁ

8[] • \$\text{an} \chi \text{an} \text{an} \text{de} \text{An} \tex

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F97F95H£CBÄ	Ú[ơ/) cũna() Á Ùất} ã Đốc cá Qi] an SoÁ	Š^••ÁV@æ)Á Ùät}ãã&æ)oÁ ¸ão@Á Tãúātææā[}Á	Š^••Á V@a)Á Ùa*}ãa&a)oÁ Q:]æ&oÁ	Þ[ÁQ]æ&cÁ
adÁr [ˇ åÁs@Á; ˈb/8oÁş &'^æ-^Ás@Á•^Á;^ǣa;ª*Á^ǣa[;@[åÁ æ)åÁi^*ã[}æt]æt]•Á; Á;cœ;Ái^8k;^ææā]ætiææājæē*Á•*&@Ácææti • `à•æ;æætiætiætiætiætiætiætiætiætiætiætiætiæti	ш,,	ΠÁ	⊠Á	∏Á
à ĐẮỐ [^• Á;@ Á; [15/80 Á; 8 * å^Á^8 k ^ ææā; } æṭÁææāāāā • Á; Á^~ * ā^Ás@ Á 8[}• d* 8:ā } Á; Á*¢] æ}• ā; } Á; Á^8 k ^ ææā; } æṭÁææāāāā • Á; @æ@á; ā @Á @æç^Áæ; Áæåç^!•^Á; @• ā8æ‡Á~~8.0Á; } Á;@ Á*} çā[} { ^} 0ÑÁ	ΠÁ	ΠÁ	⊠Á	ΠÁ

9 bj]fc ba YbHJ`GYH†jb[.Á/@ÁW ãæ@ÁXæ||^^Á; ~^\!•ÁæÁ, ãå^Áçæðð c Á; ~Á^&\^æða} æþÁ;]][¦cັ} ãæð•ÈÁV@•^Á ā¸&\`å^Á; [¦^Ác@æ) ÁFHÁÔãc Á; æ\•ÊæÁ; `} æðā æþÁ;[|-Á&[``¦•^Éæ) åÁæÁ•\æc^Á; æ\•Á; æ) æð^åÅà Ác@ÁÔāc Á; -Á W ãæ@Áç; [Á^*ā]} æþÁ; æð «Á Aà Ác@ÁÔ[``} c LÁÔ[¸ ÁT[``} ææā ÁÜ^&\^ææā}} ÁŒF^æÁ; æ) æð ^åÁà Ác@ÁÔ[``} c LÁÔ[¸ ÁT[``} ææā ÁÜ^&\^ææā}} ÁŒF^æÁ; æ) æð ^åÁà Ác@ÁÔ Č`\^æ Á; -ÁSæ) åÁT æ) æð ^{ \ ÅSæ) åÁT æ) æð ^{ \ ÅSæ) åÁT æ) æð ^{ \ ÅSæ) åÁSæ} ^ÁT ^} å[&æ] [Á; æ) æð ^åÁà Ác@ÁWÛÁŒ{ ^ ÁÔ[\]]•Á; -ÁÒ} *ā] ^^\!•ĒÁQÁ æð åÃããã } ÊÓ@\!^Áæ4^Áæ] ¦[¢ā; ææ°\ÂÁEÁ; ĀŶ•Á; ÆÁ; æð AÁ; Ææ°\åÁG@ÉW ÁW ãæ@ÁXæ||^ÊÁ

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HF5BGDCFH5H+CB"ÁÁV [ˇ åÁv@Áj¦[炒&dÁ	Ú[ơ/) cũna()^Á Ùất} ã Đốc cá Qi] an ScÁ	Š^••ÁV@ea)Á Ùa†}ãã&ea)oÁ ,ão@Á Tãađæea[}Á		Þ[ÁQ]æ&cÁ
æÐÁ Ô[}⊣æBoÁ, ān@ÁæÁ]¦[*¦æṭĒÁ] æḥĒÁ[¦åā]æþ&^Á[¦Á][æb¢Á æåå¦^••ā]*Ár@Á&ā&ï ææā]}Ár^•ơ<{ĒĀ;8 °åā]*Áræþ•āÆĀ[æå,æĒÁ àæ&î& ^ÁæþåÁ,^å^•dææþÁæ&ājāæ•ÑÁ	∏Á	ΠÁ	Á	ΠÁ
à DÁÔ[}- -Baon(-Ás^As -84]}•ã c^}o-Á; āc@ÁÔÒÛ OEÁÕ ~ãs^ āj^•ÁsAFÍ€Î ÈHÊÁ • `áåāçāāj}Ájà DÉÓ!āc^ -ãæÁy ÁOE; æf:āj*Á/ æ38ÁQ]æ&o-ÑÁ	∏Á	∏Á	⊠Á	∏Á
8DÁÙ à•cæ) cã# j^Ág & ^æ•^Á@e æbå•Áb*^Ág ÁæÁ*^[{ ^dæÁ*^ē^•ð}}Á -^æc ¦^Áợ È ĐÁ• @æ] Á& ¦ç^•Áj ¦Áåæ) *^![*•Ág ơ\•^&æ] }•DÁj ¦Á g &[{] ææã ^Á•^•ÆĎÈ ĐÁæd{ Á* *g { Å* *g } *DÁý	ΠÁ	ΠÁ	⊠Á	∏Á
åDÄÜ^•` oÁ§,Á§;æå^``ææ^Á^{ ^¦*^}&.Áæ&&^••ÑÁ	∏Á	∏Á	⊠Á	ΠÁ

G][b]ZWUbWY7f]hYf]U.ÁQ] æ&o Á[Átæ)•][¦ææā[}Áæ) åÁtæ-æ&Á[`|åÁa^Áð] ãæ&æ) óÁsÁc@ÁÚ![b\&oÁs[} |æ&o\åÁ ¸ãoÁæÁ[&æÁ]|æ)Ê[¦åð]æ}&^Á;¦Á][|æ&óÁæåå¦^••ð]*Átæ) åÆE[æå]æÉÀaæ&&A\Áæ) åÁ]^å^•dææ,Áæ&ðãããð•LÁ &[}|æ&o*AÁ¸ãoÁÔÒÙOÆÕ`ãa^|ð]^•ÂU^&ÆÆÍ €ÎlÈHÇaDɸææ&Ø&[}ææ,éÅåó*)åæÁ;¦Áæ)æf:ð]*Ádæ,e∮:ð]*Ádæ)•][¦ææð]}Á ã[]æ&o*LÁ*à•œò;cæd|Áð;&|^æ*AÁæe æåå•Áå*^Át[Á*^[{ ^dæ&Áå^•ð]}Á°ææ;¦^•LÁ;¦Á^•*|o*åÁð,Áð;Æð;æå^**æ*Á ^{ ^¦*^}& Áæ&&^••ÈÁÁÁ

QÁŒFÌĒÁœÁU~ãX^ÁĮ~ÁÚ|æ}}ã,*Áæ;åÁÜ^•^æ&@ÁÇUÚÜDÁ¸`à|ã @åÁæÁV^&@;ãæ;ÁCãçã[¦^ÁĮ}ÁEvaluating Transportation Impacts in CEQA ÇŒFÌ DÁ¸ @ã&@ÁæÁ¸¢°}å^寏Á¸Í[çãã^ÁæåçãX^Áæ;åÁ%8[{ { ^}åææã}}•ÁĮ¦Á
^çæj ææã;*ÁXTVÊÁ¸ @ã&@Áæ²^}&ã°•^åæj åÁ¸cœ¦Á*}äã3°•Á; æáÁ°•^ÁæAc@ãÁåãã&¦^æß;ÈŒ Ååãa&°•^åÁ¸lœ¦Á
à^|[¸ÊÁœÁV^&@;ã&æþÁCãçã[¦^Á;~^¦•ÁœæÁ&&!^^};å*Áœ°•@|å•Á; æÁs^Á•^åÁ[Áãå^}æã^}œã^Á, @}Áæ;åÁ°•^Á
]¦[b/&o•ÊÁ`&@ÁæÁ{æþÁA°•ãå^}œäpÁ;¦[b/&o•ÊÁ@¢Á*¢]^&c°åÁ[Á&æ*•^Áæþ/••Ēcæè,Ēá³}ãã3æ;óÁ
ą́]æ&óÁ¸ãæ@;óÁ8[}å*&æå;*ÁæÁs^œæåpåáÁ;ææãbÁcčå°ÈÁ

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V@Á[||[] ā * Á[&æÁ, |æ] • Á@æç^ Á@æ (| &ææl) Áææl Åææl Åææl A•• Ádæ) •] [| cææl] } Á āc@g Ác@ ÁÔãc Á; ÁW āæ@ÁCEFI ÁW ææ@ÁCEFI ÁW ææ@ÁCEFI ÁW ææ@ÁCEFI ÁW ææ@ÁCEFI ÁW ææ@ÁCEFI ÁZEFI ÁZEF

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, ``` GÁ ¢ã cã * Á, [å ^ | • Á; ¦Á, ^ c@ å • Ásd ^ Á, [oÁse cæājæà | ^ Áq Áx • Cā, æc Áx @ Áy ^ @ Bk | ^ Á, ā ^ • Ád æç ^ | ^ å Á; ¦Áx @ Á, æd cā &` | æd Á] ¦ [b % oÁs ^ ā * Á& [} • ãs ^ | ^ å ÉzénÁ ^ æs Ásd ^ } & Á, æ Ásd æf : ^ Áx @ Á; | b % co Áy @ Bk | ^ Á, ā ^ • Ád æç ^ | ^ å Á ` ædāææāç ^ | ° ÉA Ù ` & @ÁsnÁ ` ædāææāç ^ Ásd æf • ã Á, [` | å Áx çæ j æc ^ Áæ&d ¦ • Áx ` & @Áse Áx@ Áse;æājæà jāāc Á; -Ád æð • ãt Á; [¢ā, āc Áq Á; c@ ¦ Á å ^ • cājææāj } • ÉAx c& ÉAzO[¦Á, æð ^ Á; ¦ [b % &o• ÉÁsnÁ ` ædāææāç ^ Ásd) æþ • ãr Á; -Ás[} • d ` & cāj } Ád æ-æð Á; æð Ás ^ Ásd]] ¦ [] ¦ãæex ÈÁ Áx

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8]gW gg]cb. fu!VŁ @/gg h ub g][b]ZWubh]a duwi Áv @ Áu ÚÜÁV^&@ &&AÓŒçã [¦^Á[}ÁEvaluating
Transportation Impacts Under CEQA • * * * ^ • • Ác@æÁæÁ@ { ^ Áaæ ^ åÁd] Ág] ¦[æ&@Æ Á[}^Á[}^Á[-Ác@ Áa^ • óÁ
{ ^c@ å•Á[¦Áæ•^•••]*ÁXT VÁ¦[{ Á'^•ãa^}cãe^Á]¦[b/&o•ÈO•Á][c^åÁ]Ác@ ÁV^&@ &&AÓŒaçã[¦^ÊÁ(æ)^Á
æ*^}&&•Á•^Á&&!^^}] * Ác@^•@|å•+ÁfÁ* &] ^ &&A(A)**
æ* ^}&&•Á•^Á&&!^^}] * Ác@^•@|å•+ÁfÁ* &] ^ &&A(A)**
æ* ^}&&A(A)**

Ø[¦Ác@ Ál^æ=[}•Árcæe^åÁæà[ç^ÉÃc@ ÁÚ¦[bʰ&cÁş[ˇ|åÁş[cÁ&[}-læ&cÁşãc@ÁÔÒÛ CŒŐˇãå^|āj^•ÁhÁFÍ€ÎIÈŒÃ}[¦Á ¸[ˇ|åÁãó&[}-læ&cÁşãc@ÁæÁ^*ã[}æþÁşlæ)Áş¦Áş[læ&á^(klæe-å&ÆQ]æ&c•Áş[ˇ|åÁá^ÁYgg¨h\Ub˙g][b]ZWUbH'ÁÁ Á

fWXL:@/gg'h, Ub'g][b]ZWUbh]a dUWY'ÁQI] | [¢ã æc^|Á}^É@æhÁ, ā^Á, Á@Á\¢ā cā,*ÁTÌ ÁQÁ fá^Á æâ^Á!æç^|Á] | āçæc^Áæ&&^••Á[æå£ã^*ā] à *Áæó@Á@á&&&^••Á[āço,Aí] a cá ææ^Áæ&&^••Á[æå£ã^*ā] à *Áæó@Á@á&&&^••Á[ā có æá&&^••Á] a có æáÆã] à *Áæó&&^••Á[á có Á@í •ā có Aí] a có Ágí Ár có Aí] a có Ágí Aí] [••ā Ár có Aí] a có Ágí

^ÍÁn<u>oòo]•Knan, tì, ^}å[&ā;[&[*È;¦*Đa∳</u>∧•ĐilGHHEÏÍ⊕BOÐEFÏÉÜ V ÚÉOT•ÉOT&[]o^åÃGÌ, ^àÉ-;¦{ænoÃG UÈ;å-Áng;*ÈÁFFDÁ. Á Ôæţā[¦} ãæ¢Ö^] ædq ^} ớṭ ÁZ[¦^•d^Áæţ åÁZā^ÁÚ¦[ơ &cāt]} ÁÇÔæţÁZā^DÁæţ åÁc@ÁNN ãæ@ŔNæţļ^^ÁZā^ÁŒ c@ţiác Á
ÇNNXZOŒÁ@æç^Á¦^ç㸠^åÁc@ÁÚ¦[b>&cÁæţ åÁ&t]} å* &c^åÁæ¢ ãc^Áçã ãŒÁŒţÁ!]¦[ç^{ ^}œÁ; [`|åÁà^Á
å^ç^|[]^åÁã¸Áæ&&[¦åæţ &c^á¸ãæðAZā^Áæţ åÁo`āţåā;*Á&[å^•Á\þæc^åÁqt Ár{ ^\;*^} &c^Áæ&&^••Áæţ åÁ•æ^c ÈÁ
V@¦^-{¦^ʶ;|[][•^åÁæ&&^••Æt]]¦[ç^{ ^}o∳¸[`|åÁş[oÁş &¦^æ•^Ád;æ-ã&Á@æ ædå•ÊÃ;[¦Áş[`|åÁc@^Ák^•`|oÁ
⏯ţæå^``æc^Ár{ ^\;*^} &c Áæ&&^••Æt]]æ&o^Á[`|åÆs^ÁYgg;h Ub;g][b]ZWUbHÉÁÁ

%, "Hf]VU 7 i `hi fU FYgci fWYg''

HF=65@71@HF5@F9GCIF79G""Y[" å/km@/å, b/86/8eĕ•^/Á æÁ• à• œa) @ ф/æåç^!•^Á&@ œa) *^Áā, Ác@ Á•ā} ã & æa; & & Á[- ÁæÁciāa æ4Á & c' æþÁ/^•[" &^Ékå/-ā]^å/ájÁ()" à ækÁÜ/-•[" &^• Áô] å∧4• & æā;} Á CF€I Áæ-Áã@ Áæ-Áã & Ék²-æ '-ÞĒ, ææ-Æ&; c' æþÁæ; å• & æa; ^ Áœ-æá; Á *^[* æ] @ &æa; ^á⁄a, ā/ā; Ác²;{•/í, -Ác@, Á•ā, á/æ; å/æ; & ē]]^/í, -Ác@, Á æ; å• &æ; ^Ē⁄-æ&; ^á/ā] ææ-Ék²; ['á] à b/8c/A, ão@ Áæ; c' æþÁçæ; ^Ác[ÁæÁ Öæjā[} ãæ/Þææ; ^ÁCE, ^ ææ-Áæ; å/áæ, Éæ-Áæ; å/ææ-Æ; /Ác[ÁæÁ	Ùar}āa&aa}oÁ Qo]aa&oA	Š^••ÁV@a)Á Ùa*}ãa38a)oÁ ¸ão@Á Tãa2*aæa[}Á	Š^••Á V@eajÁ Ùat}ãaBæajoÁ Qu]æ&oA	Þ[ÁQ:]æ&oÁ
æĎÁŠã ơ åÁ[¦Á^ ā 裔 ^Á-[¦Á ã ຜ] * Á∄ Ác@ ÁÔæļã[¦} ãæÁÜ^*ã ơ ¦Á[Á Pã ť[諸æÁ Ü^•[ˇ &^• ЁĀ[¦Á ∄ Á æÁ [8æÁ l^*ã ơ ¦Á[-Á 廢 ť 諸æÁ ^•[ˇ &^•Áæ Áå^∄^åÁ∄ ÁÚˇà ã&ÁÜ^•[ˇ &^•ÁÔ[å^Á•^&æí]}ÁÍ€⊖€正介 [薤¦Á	. —	⊠Á	ΠÁ	∏Á
à DÍOZÁ^•[ˇ &^Áå^ơ { 夏^åÁà^Ác@Á↑æåÁæ⁴^}& ÉÉijÁæ→Áãã&l^ơై}Á æjáÁ•ˇ]]['ơåÁà²Á•ˇà•œà œà œà Áæ¾^}& ÆÁ ﴿Áà^Á•ã}ãææ) Á]ˇ •ˇæ) ơÁ ợÁ Á&læơ ææÁ•^Ó-4;lœÁąÁ• àåãçãã∮Á¸ØA&læolææb;lææÁ• Ü^•[ˇ &^•ÁÔ[å^ÁU›&夏]}Á € 日 庄庄ÁgÁæ]]ĵą*ÁœÁ&læolææb;lææÁ•oó -{ cœÁjÁ°àåáæãã}Á¸ÁœÁjÆÛ,•áU°aæÁJ›•[ˇ &∧ÁO[å^ÁU›&æ]}Á € 日 庄ÉÁ cæÁpæáÁæ⁴^}& ÁæÁææÁ¸ÁæÁlæÁæÁ²}ãææææææÁ.ÁæÆÁ^•[ˇ æ∧Á -﴿ÁæÆææÁæ²}& ÆÁÞæææææÅÁæÆ¸ÁææÁå²}æææææææææææææææææææææææææææææææææ		⊠Á	ΠÁ	ΠÁ

G][b]ZWUbWY7f]HYf]U.ÁCE,Át] æ&cÁt Átā ææk& |c'læh^•['l&^•Á,['lahÁ^•['l&^•Á] ãææ,chá, Mille book ^!^Át Á æchá ææk obá, Mille book obá, Mill

9 bj]fcba YbHJ`GYHjb[.ÁQēÁsã&*••^åÁşÁl^&cáj}ÁsÉÔ`|c'|æþÁÜ^•[`|&^•Éæb^æ•Ás@æÁæb^Á;[•oÁc]ææl^Á &*|c'|æl|^Á•^}•ããāç^Áāj&|`å^Ác@[•^Áæålæ&^}oÁd[Á•d^æ(•ÉÁ•]|āj*•ÉÁæ)åÁ{ããË|[]^Áà^}&@•Áæà[ç^Á ;æz^|&[`|•^•Ás^&æ*•^Ápæãāç^ÁQĘ^|&æ}|•Áæ)åÁa^od^|•Áæ;[|^åÁxæ*^Áæ&&^••ÁgÁ;[ææà|^Á;æz^|ÉÁ Á

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- •Á Ô[^[c^ÁXæ||^^ÁÓæ);åÁ;-ÁÚ[{ [ÁQåãæ)•Á
- $\bullet \acute{A} \ \, \tilde{O} \ \, \tilde{a}\tilde{a}\tilde{a}\tilde{a}\tilde{a}/A \hat{Q} \ \, \tilde{a}\tilde{a}\tilde{a} + \hat{A} \hat{Q} \ \, \tilde{a}\tilde{a} + \hat{A} \hat{Q} \ \, \tilde{a}\tilde{a}\tilde{a} + \hat{A} \hat{Q} \ \, \tilde{a}\tilde{a} + \hat{A} \hat{Q} \ \, \tilde{a} + \hat{$
- •Á P[] |æ) åÁÓæ) åÁ(ÁÚ[{ [ÁQ) åãæ) •ÁÁ
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- •Á Ü^å, [[åÄxæ|/^ÁŠãɑd/AÜãç/¦ÁÓæ)åÁ; ÁÚ[{ [ÁQåãæ)•ÁÁ
- •Á Ù&[cœ ÁXæ||^^ÁÓæ) åÁ; ÁÚ[{ [ÁQ åãæ) •Á
- •Á Ÿ[\œ̂[Á/¦æð^ÆÁ,[ơÁ^å^\æ]|^Á/&[*}ã^åA

8]gWigg]cb.fu!VŁ@/gg'h\Ub'g][b]ZWUbhi]a dUWHĂOEÁs^e&lâs^aÁā,AÙ^&cā;}Á.ÊÔ`|c'læþÁÜ^•[`'l&^•ĒĀ,-Á cœiÁQiãaæhÁUc'å^ĒÁ,[Á&`|c'læþÁ^•[`'l&^•Á,^l^Ásá^}cāð'åÁ,ão@)ÁO¦[b'&cÁs4^æÁseÁseÁseÁsé)fof,Ac@Á^&['lå•Á •^æ&@Ájāc^læc'l^Á^çãi,ĒÁ;lÁse&@@^[][*a&æþÁð\láÁ*'lç^^ĒÁQIÁsæååãaā[}ĒÁs`^Á[ÁīæÁ[][*læ;@Ēóc@Ásāc^ÁsA &[}•ãa^l^åÁ[Áœeç^ÁsæÁ],Á[c^}caæþÁ['lÁ&*|c'læþÉæb&@[[[*a&æþÉæb}åÁæø†aÁæog["a&Á^•[*l&A*•ĒÁ

Oţc@`* @Á; [Ád āà^•Á@œç^Á&[] cæ&c^åÁc@ ÁÔāc Á[-ÁW\ āæ@Ág Á\^``^•cÁ; [cãa&ææā]}Á`}å^¦ÁOŒÓÁ GÊÁd āàæÁ}[cãa&ææā]}•Á[-~^¦ā]*Ác@Á[]][¦c³}āc Ág Á'^`^•cÁ-[¦{ æþÁ&[}•`|cææā]}Á, ^!^Á•^}cÁg Á[&æþÁd āà^•Á[}Á
][cãa&ææā]}•Á[-~^¦ā]*Ác@Á[]][¦c³}āc Ág Á'^``^•cÁ-[¦{ æþÁ&[}•`|cææā]}Á, ^!^Á•^}cÁg Á[&æþÁd āà^•Á[}Á
Ö^&^{ à^!ÁFÍ ÉĞG€G€EĂQ Áœååāāā]}ÉæÁ^``^•cÁ*^\ā]*ÁæÁā cá, -Ádāà^•ÁœæÁ*@2`|åÁa^Á&[}cæ&c*åÁ;æ•Á*)cÁ
[á\@AFOEPÔÉÞ[cã&^•Á^!^Á*^}cÁg ÁœÁæååāāā]}æþÁdā*-Æå*^}cãa*åÁà*ÁæÆÞOEPÔÁ;}Ææj*æb^ÁFI ÉĞG€GFÉÁ
U}Áæj*æ†ÂG ÉĞG€GFÉÆæÁ^``^•cÁ[¦{ æþÆ}]}æ∮&[}•`|cææā]}Áà^Aæ@ÁÚā][|^çā|^ÁÚ[{ [ÅÞææā]}Á;æ•Á%§āçååÁA
OŒÓ GÁ&[}•`|cææā]}Á;æ•Á&[}&]*å^åÁáÁāæ^Á[}ÁTæÁHÉG€GFÉÁÓ[!!^•][}å^}&^Á;āc@ÁÚā][|^çā|^Á
Ú[{ [ÁÞææā]}Á@æ•Áà^^}Á[&æ*Á]&[}æåÁ-[Á&[}æå^)}cãa*]£ÁV@Á[ācó4[ÆÓ-EÉÓ[!!^•]]}æ&c*a*Áæ*Aá]&|*å^åÁā]Á
5 HLWY a Ybh7 ÉÁ

^ O^•]ār^Ác@^Á,^*ænāç^Áājåāj*•ÁsojåÁs@^Á[¸Á,[c^}cāsdÁ(¦Á^•[ˇ|&^•Á(Á,&&ˇ|Á;)Ёār^Éós@¦^ÆsóA,[c^}cãsdÁ(¦Á ¦^•[ˇ|&^•Á(Áà^Áājænáç^lc^}d^}d^Áaãs&[ç^!^aÁa*iāj*Á*¦[ˇ]åÁaãscč¦àāj*Ásoscāçānān•ÈÁV@¦^-[¦^ÉÁTānātænā]}Á T^æ-ˇ¦^•ÁÔWŠËFÁsojåÁÔWŠËGÁ,[ˇ|åÁso^Áā[]|^{ ^}c^åÉAQ]æ&o-Á[Á,[ˇ|åÁso^ÁYgg'h\Ub'g][b]ZJWUbhik]h\` a]hj[Uhjcb']bWcfdcfUhYX"Á

A]h][Uh]cb AYUgi fYg.

. Q0.]|^{^}o@eea[}A[Aπ'] @e%—eea]åAπ'] @e&"Á ...

% " I hj`]hjYg`UbX`GYfj]WY`GnghYa g`

IH—@H—9G·5B8·G9FJ-₹9·GMGH9AGËÁY[ˇ åÁv@Á∫:[bº&dÁ	Ú[ơ} యూజ ^Á Ùã} ãa&a) oÁ Q:]aa&oÁ	Š^••ÁV@a)Á Ùāt}ãa&a)oÁ ,ão@Á Tãoātæaā[}Á	Š^••Á V@e)Á Ùa*}ãa8æ)oÁ Qu]æ&oÁ	Þ[ÁQ]æ&cÁ
aednü^``ā^Á; Á^•` oÁg Áo@Á^ [&æeð]}Á; Á&[}•d`&æð]}Á; Á^,^, Á; Á ^¢] að å^åÅ, ææ' ÉÅ, æ•c^, ææ' Á d^æ∉ ^}oÁ [Á•¢]; Á, ææ' Á å æð] æ*^ÉÁ^ ^&d &&Á] [, ^ ÉÅ) æĕ æþÁ* æ• ÉÅ Ác^ ^&[{ { `} &&æð]}•Á -æ&ðjáðð•ÉÁc@Á&[}•d`&æ]}Á ; Á^ [&ææð]}Á , Á, @æ&@Á&[` åÁ&æ•^Á •ð]}äðbæð;oÁ*)çā[}{ ^} cæþÁ~~&oÑÁ		⊠Á	∏Á	ΠÁ
à DÁP æç^Ár`~a&a) đó, ææ^¦Ár`]] a)•Áæçæaqaæà ^Áq[Ár^¦ç^Áo@Ág; [b)&oÁ æ)åÁ^æ•[}æà ^Áq[i^•^^æà ^Árč' ^Á&^ç^ []{ ^}œÁs`;ā;*Á;[;{æd£Á å; ^Áæ)åÁ;` @a ^Ás; ^Á^æ)•ÑÁ	∏Á	ΠÁ	⊠Á	ΠÁ
8DÁÜ^• [ơÁạ ÁæÁå^ơ¦{ ạ æạā] Áà Áơ@Á, æơơ, æơ¦Ád^æạ (^) ơÁ] [çãa^!ÉA, @&@é^^¦ç^•Á] lÁ(æ Á•^!ç^Ác@Á] i[b/8cóc@æÁãóA@æ Á æå^ ~ æe^Á8æ] æ8ác Át Á•^!ç^Ác@Á] [b/8cơ•Á] [b/8cơ•áÁâ^{ æ) åÁa Á æååããā] Át Ác@Á] çãa^!ơ•Á°¢ã cā) *Á8[{ { ãt ^}o•ÑÁ	· ·	ΠÁ	⊠Á	∏Á
å DÁÖ^}^ æe^Á[ãāÁ;æe ơ Ág Ár¢&^••Á;Árææ^Á;lÁ[&æþÁcæ)åæå•Æð;lÁ ājÁr¢&^•Á[ÁcæÁ&æ]æ&ãĉÁ[Á][&æþÁð;læedč&č;l^Æð[lÁ]cæ];ãe^Á āj]æäÁcæÁæææð;{^}óÁ,Á[ãáÁ;æe ơ Árå*&æð]}Á[æþÑÁ		ΠÁ	⊠Á	∏Á
^DÁÔ[{] ^Á¸ã0@Á^å^¦æþÉA•œæ^ÉÁæ)åÁ [&æþÁ;æ)æ*^A;^\%à*&æ*.**********************************	∏Á	∏Á	⊠Á	∏Á

. **G][b]ZWUbWY7f]HYf]U.Á**Q]æ&orÁ[Á QặãcÁs)åÁ∧¦çã&∧Á^•ơ√{•Á,[ˇ|åÁs∧Á∄}ãã&æ)oÁsÁs@ÁÚ¦[b^&oÁ∧•ˇ|ơ^åÁ ã,Áo@Á&[}•dˇ&cã[}Á[¦Á^¢]æ)•ã[}Á;⊸Á Qặãã>•Áo@æóÆ[ˇ|åÁ&æ*•∧Á∄}ãã&æ)oÁ√}çã[}{^}œ¢Á~∞^&orLÁ@æç∧Á

ā̞•ˇ~a&an) óḥ æan'kárˇ]] |an•Áææçæajæaà|^Áq[Ác@áÚ¦[kn·&oÁàˇ¦ā̞*Á̞[¦{ æþÁq[Án·¢d^{ ^|^Áa¦^Án^æð•LÁn^•ˇ|ơ°åÁạjÁ ā̞æan^ˇˇæan^Ásæajæ&acîÁ̞-Ác@Á̞æ-ơ¸ æan'kár^æaq ^}óḥ|æajdÁn^}^!æanàÁq[|añÁ¸æ-ơ^Án·¢&n^åä̞*Ác@Ásæajæ&acîÁ [-Á[&æþÁa̞-ˈæ-dˇ&cˇ|^ʎṭ¦Áā[]æaiā̞*Ác@Áæ&@n·ç^{ ^}oʎ̞-Áa[|añÁ¸æ-ơ^Án°å &cai̞}Át[æþ-Lʎ̞¦kæain^åÁq[Á&[{]|^Á ¸ãc@Áæp^Á;æajæt^{ ^}o⁄AæpååÁn^å*&cai̞}Ánæætơ•Áṇ¦Án**|ææai̞}•Án|æænåÁq[Áa[|añÁ¸æ-ơ∩ÈÁ

9 bj]fcba YbHJ`GYH]b[.Á/@Á(æt)[lãcÁ;ÁÓācÁ];[]^¦cã>Áæ+^Á+^¦ç^åÁà^ÁÓācÁ;æe^¦É+^,^¦ÉA|^&dæ3cácÁ æ) åÁdæ @ÁS[||^&cā;}ÉÁP[,^ç^¦É+[{^Á];[]^¦cã>Á,ãcã;Ác@ÁY^>•c¹}ÁPā]•ÉÁ;&|`åā;*Ác@ÁÚ![][•^åÁ Ú![b^&cÁ•ãc>ÉÁa[Á;[cÁc;'!^}d^Ácæ;^Áæ&&>•ÁqÁãcÁ°ácÁ°ácÁ°ácÁ°íAj;[]^¦cÁ;°æå^Á;ÁcæÁócácÁ]āæÞÉÁ •^¦çã&>•Áæ4^Á;![çãa^åÁà^Á;¦āçææ^Á^¦çã&^Á;[çãa^¦•Áæ)åÁ;]^&ãæHÁåādædææÞÁ°{{æða^åÁà^[,£á

.`. Electric. V@ÁÔāc Á; -ÁW. ãæ@; ÁÒ|^&dã&ÁWājāc ÁÖ^]ædd ^}ơ∮¦[çãa^•Á^|^&dã&Á^¦çã&^•ÁqÁ;j]°¦að•Á; ãæ@;Á c@ÁÔāc Ájā; ãæ ÉÁ, @ā^ÁÚæ&ãã&ÁÕæ ÁBÁÒ|^&dã&ÁQÚÕBÒDÁ;¦[çãā^•Á^¦çã&^•Áq¦j]^¦að•Á; °øāâ^Á; -Áæ@ÁÔācÈ

V@ÁÔã¢Á, ÁNN, ãæ ©ÁGEGEÁN à æ}Á æ chát æ}æ t^{ ^} oÁÚ|æ)ÁÇWYTÚDÁ, æ Áæå[] chåÁs ÁÔã¢ÁÔ[ˇ} &ĀÁ;}ÁR `}^Á ŒÃGEGFÈN @ÁWYTÚÁS[}•ãá∧¦•Á+^ç∧¦æ∮Á*¦[¸c©Á+&N}æðā, eÁā, &|ˇåā, *Áæ)Áæååããā;}æ∮ÁŒÉÉÉÁæ)åÁíÆEEEÁ @[[\ˇ]Á+&N}æðā, •Áæ)åÁs^ch¦{āj^åÁs@æÁc@¦^ÁãaÁsæa;æ&ã¢Ác@[ˇ*@Ác@ÁGEIÍÁ;|æ)}āj*Á@¦ã[}Áq[Á+∧¦ç∧Á c@•^Á¦[¸c@Á;¦[bh&aā;}•ÈÁ

Solid Waste EAV @ ÁNN ãæ@Áæ) å-āļlĒĄ o ãå ÁÔãc ÁāĮ ãơ Á; Áx ã&@ ÁŪ] ¦ā * • ÁÜ[æå ĒÁc[]] ^ å Áx &x ãçã * Á; ` } æ&ā æÁ • [|ãå Á æ c Áā; ÁŒEF Áæ) å Ác@ ÁÔāc Áæ Á; [!\ ā; * Á; } Á&æ] ā; * Ác@ Áæ) å-āļlĒÞ[Á; ^ , Á æ c Ár ^ } ^ !æc å Á; ālÁà ^ Á] ![&x • • ^ å Ác@[* * @Ác@[* * @Ác@ Áæ) å-āļlĒŪ[|ãã Á æ c Ár ^ } ^ !æc å Áā; Ác@ ÁNN ãæ@Áxæļ^ ^ Ææ Ár ¢] [!c å Á; !Ååã] [• æþÁ; Á c@ ÁÚ[d^![ÁPā]• ÁŠæ) å-āļlÁā; ÁÜ[|æ; [ÁÖ[* } c ĒÁV @ ÁXæļ^ ° q Á•[|ãã Á; æ c Áåã] [• æþÁ• ^ • c { Á&[} • ã c Á; ĀæÁ |æ* ^ Áş[| * { ^ Ást æ; • ~ !Á ææā; } ĒÁNN ãæ@Áxæj • ~ !ÁÜææā; } ĒÁ, @æ æÁ &x ãç^ • Á; æ c Á; !Ár ¢] [!dÉÁ

8]gWigg]cb.ÁfUL:@/ggˈh\Ubˈg][b]ZWUbhi]a dUWik]h\`a]h][Uh]cbˈ]bWcfdcfUhYX"Ù^¸^¦Éĸæe^¦Áæ}åÁ ^|^&dã&Á qããa•♠Á¸[ˇ|åÁs^Á;¦[çãã^åÁq Ás@ÁÖ^ç^|[]{^}œÁUæ\$&^|•ÉÀU^¸^¦Ásæ}åÁ¸æe^¦Á¸ã|Ás^Ás^ç^|[]^åÁs^Á

fK!YL'@/gg'h\Ub'g][b]Z\VLbhi]a dUW\"\CE\# a} ã&&æ) oÁæ ['} oÁ -Á+[|aã Á æ e^Áa Á}[oÁæ) cæa a&á] æe^åÁq Áa^Á
*^}\!æe^åÁ|[{ Ác@ ÁÚ|[b\&oÁæ) åÁæ|Á[|aã Á æ e^Á, ['aÁa^Áåā]]• ^áA; Áæ&&[!aæ) &^Á aæé#æ}&^Áa aæé#æ}åÁq Áææ*åÁq Áa; ææ*åÁq Áa; ææ*åÁq Áa; ææ*åÁq Áa; ææ*åÁq Áææ*Áæ; åÁq &æ#Áææ*óÅ; aæ#Áææ*óÅq ææ*åÁq Áa; ææ*åÁq Áa; ææ*åÁq Áæ; ó*æ*åÁq Áa; ó*æ*åÁq Áa; ó*æ*åÁq Áa; ó*æ*áÁq Áa; ó*æ*áÁq Áæ; ó*æ*áÁq Áa; ó*æ*áÁq Áæ; ó*æ*áÁq Áæ; ó*æ*áÁq Áæ; ó*æ*áÁq Áæ; ó*æ*áÁq Áa; ó*æ*áÁq Áu] aæ*åÁa^Áu] aæ*åÁa^Áu] aæ*åÁq Áa; ó*æ*ó*áAq Áa; ó*æ*ó*áAq Áa; ó*æ*ó*áAq Áu] aæ*åÁq Áu] aæ*åÁq Áu] aæ*áÁq Áu] aæ*åÁq Áu] aæ*áq Áu] aæ*åÁq Áu] aæ*áq Áu] aæ*åÁq Áu] aæ*åAq Áu] aæ*á

OЩÁs^ç^|[]{^}ơÁ¸[ˇ|åÁs^Á^ˇˇã^åÁs[Æs[{]|^Á¸ão@Áse|Á^*ˇ|ææā[}•Á¸^¦ææā]ā]*Ás[Á¸æ•ơ¸ææ^¦ÉÁ[|ãsÁ¸æ•ơ°ÉÁ ạà¸åÁ,o@~¦Ár^¦çã&^Ár`•ơ{{•ÉÁ

A]h][Uh]cb A YUgi fYg.

&\$" K]`XZIfY'

Ú[c^}cã# ^Á Ùã*}ãã&æ}cÁ Q;]æ&cÁ	Š^••ÁV@ea)Á Ùat}ãaBaa)oÁ ão@Á Tãadaeaa[}Á	Š^••Á V@a)Á Ùāt}ãa8aa)oÁ Qt]æ&oÁ	Þ[ÁQ]æ&oÁ
□Á	∏Á	⊠Á	∏Á
□Á	□Á	⊠Á	□Á
□Á	⊠Á	□Á	□Á
ΠÁ	∏Á	⊠Á	∏Á
	□Á □Á	Úāt } ãaākæaj ch Úāt } ãaākæaj ch Q] ææch Táaā ææaaa } h Táaā ææaaa } h Á □Á □Á □Á □Á	Ûât } ãa8ca) oÁ Ûât } ãa8ca) oÁt }

G][b]ZWUbWY7f]INYf]U.ÁQ] æ&æ Á[Á, āpå-ā^Á, [ˈ|åÁà^Árā] ãææa) ơÆÁœ ÁÚ|[l/b/&cÁ, ^l/A[l/aæ*åÁs, Á;lÁ,^æ ÁæÁ
Ùææ*ÁÜ^•][}•ãaāãc ÁŒ-æÁÇÜÜŒÐÁ[lÁ|æ)å•Á&|æ•ãæ³åÁæ Áç^l^Á@æ @Áā^Á@æ æåÁ•^ç^lãc Á:[}^•Áæ)åÁ
• `à•æ)ææl/Ás[]æāl^åÁsæ)Ár{ ^!*^}& ÂA^•][}•^Á|æ)LÁr¢][•^åÁÚ|[l/b/&cÁ;&&`]æ)æÁi, Á;āå-ā^Á[||`æ)æA[lÁr}&[]*œ)æÁi]d[||^åÁa]l^æål/Ás[]|`æ)æÁi, Ás[]åãā]}•Ár`&@ææA[]]^Áæl/ás[]-Áæl/ás[]*Ás[]*Ás[]|`æ]æÁi, Ás[]|*æ]æÁi, Æs[]|*Ás[æ]æÉi, Æs[æ]æÉi, Æ

9 bj]f c ba YbHJ · GYH]b[. ÁÞ[} ^Á; -Á@Áæ; å•Á¸ ão@¸ ÁœÁÕãc Á; -ÁW, ãæ@Áæ+^Á; &æ*°åÁ¸ ão@¸ ÁæÁÕæ; |} ãæÁ
Ö^] æd (^} œ́[-ÁØ[¦^•d^ÁÇÕæ; AÆAÕã^DÁUææ*ÁÜ^•] [}•ãa ¡ããc ÁOE^æÁÇÜÜŒEŘP[¸ ^ç^¦ÊÂÔ[ˇ } ċ Á|æ; å•Á
ą̃ { ^åãæ*\|^Á¸ ^•ớ; -Á@ÁÕãc ÁǸ &¾ åå; *ÁœÁ; æø; ¼æ; ¼æ; ¼æ; ÁœÁ; æ°¸ ©DÁæ; Áí; &ææ°åÁ; ão@¸ ÁœÁÜÜŒÁ
æ; åÁæ; Á&Jæ••ãæ³åÁæ; Áææ; å *Áæ∮‰; ÁPª @Áã^Áœ; æåå; ^°ç^¦ãc ÈÓÇ©; ˇ ®Á; [œ́; &æe°åÁ¸ ão@¸ Áæ; ÁÜÜŒÉÁ
c@ÁÕãc ¼; -ÁW, ãæ@ÁÇVÔÔÁh ŒEEDÁæ; Áæå;] c°åÁæ@ÁÜÜŒÁ^* ˇ |ææí; }•Á; ¦Áæ; å•Á¸ ão@¸ ÁæÆAÕāc Á; ãæ-Á; &æe°åÁ
ą¸ ÁPª @Á; ÁX^¦^ÁR³ @Áá^Áæ; Æ; Æ;

V@ÁÚ¦[២&cÁ•ãrÁãrÁãrÁå°ç^|[]^åÁ¸ãr@ÁÔæţÁØãrÁ~~|Áà¦^æ+•ÁæţåÁœæÁà^^}Á•`àb/&cÁq Áç^*^œæãţ}Á
{ æjæ*^{ ^}oÁj¦æ&cã&^•ÁðjÁ;¦å^¦Áq Á¼å°&rÁãrÁãr\ÁðjÁc@ÁY ^•ơ¦}ÁP∄j•ÈÆŒ‡•œæå^åÁ~^|Áà¦^æàÁ¸æéÁ
&[}•d`&c¾åÁpP[¦cœÁq ÁÙ[`cœDÁæq[}*ÁœÆÁgæ*^Áj-ÁœA,Á°ãr\ÁðjÁc@ÁY ^•ơ¦}ÁØ∭|•Áæq[}*ÁœÁr}æå/Ár}*cœÁq Á*\åi/*ææ^ÁôæĉÁq Á;í
¦^å*&^Á*\Á¶[æå•Áæ)åÁj¦[ơ&cÁc@Á&[{ { `}ãcÁ![{ Á¸ãpå-ãrÁãr\Áã;Áæ—ÉE æðjơ}æð,&rÁæ)}~æð,Arí-[¦{ ^åÁ
[}Ác@ÁF=€ËcÁ¸ãa^ÊCÈ Ü; ārÁř^|Áà¦^æð,Áæ,Áæ,Áæ€EÈ ÁæðjåÁææ,Aæ,†Ác€EFJɸãc@Ár}*[ðj*Áæð})`æþÁ;æðj¢}æð,Arí-[¦{ ^åÁ
],^¦-[¦{ ^åÁàrÁæ,Ás@Áy;[]^¦c²Á; }}*EðrÇ,A[]]^¦EÁ

OE Áåãa & ••^åÁĀJÁÙ^&cĀJ}ÁJĒPææåå•ÁæJåÁPææåå[*•ÁTæc^¦ãæHÞĒc@ÁÔ[*}c°qÁÒUÚÁJ|æJÁæJÁATRPTÚÁ æåå¦^••Ár{ ^!*^}&^Áj]^¦ææĀJ}•ĒÐJæcï¦æÞÁåãaæoc'¦•ÁÇAJ&J*Á¸Ãå-ê^ŒÉæÞÁ¸^||ÁæÞÁ;ãaðæÆAJ}Árdæc^*ðì•Á qÁ^å *&^ÁJ[c^}cãæHÁãr\•ÈÁV@ÁÔācÁ¸ÁWXãæ@Áæå[]c^åÁãæÞÁðò¦ãaå&GQAJæHÁæJ}^¢HÁ&@æJc^¦Á¸Ác@ÁTRPTÚÁ Á

8]gWigg]cb.: fluž V:/: XŁ: @/gg: h\ub:g][b]ZWubhi]a duwh" O= Áå^•&| aa^å Áæà[ç^Ác@ ÁÚ|[b^&cÁæ/æÁã Á å^ç^|[]^åÁ, ão@Á~`^|Áà¦^æ\•Áæ) åÁœæ Áà^^}Ár`àb^&oÁ([Áç^*^œæa[}}Á(æ)æ*^< ^}oÁ|¦æ&cã&^•Áā;Á[¦å^¦Á([Á ¦^å`&^Á`^|Á|| æåÁ, ão@à,Áo@ÁY^•e^¦}ÁPā||•ÈÁV@ÁÚ¦||b/&oÁ,ãoÁã,Áå^ç^|||]^åÁ,ão@Áæ)Á^¢ã;cā;*Áæ&&^••Á||æåÁ c@eenÁpæela?•Á¦[{ÁrìÁoÁpÁnÁnÁdÉÁ,ããn^Á,ão@Áo@Á,æenb¦ão;ÁnÁãoÁsn^ā,*ÁseÁ,ā,ã; *{ÁnÁO€ÁoÁ,ãa,^ÉÁ√@Án^&cā}}•Á o@aanÁad^ÁrìÁoÁ, ãã^Áad^Án @;¦oÁājÁ^}*o@ÁQaj]¦[¢ã[æae^|^Ár∈€ÁoÁ[}*DÁa);åÁ@aeç^Á, ãã^Áo°;}¦Ë; ĭorÁā[{^åãaee^|^Á à^f¦^Ái¦Ásee°¦Ás@{ EÁÓIc@Ás@ ÁÔætã[¦}ãæHÖ^]æte(^}eÁi√ÁZ[¦^•d^Áse)åÁZã^ÁÚ¦[e^&cãi}ÁQÔætHÁZã^Dán DÁse)åÁs@Á \\\\age@\dx\ae\\^^\AO&\^\AOE\cQ\\age\age\afe(\dx\x\o\o\dx\ae *¦æç^|Áæ&&^••Á[æåÁ,ā|Áà^Áā[]¦[ç^åÁ,ão@Áæ•]@æþóÁæ)åÁæÁ&`|Ëå^Ë=æ&Æãã,Áæ&&[¦åæ)&^Á,ão@Áæ|Á&`¦¦^}oÁã!^Á æ) å Án æ^c Á&[å^•Áæ]] | &&æà|^Áq[Ác@ÁÚ¦[b/&dŽÁV@Á,¦[][•^åÁq[]¦[ç^{ ^} o Á, [ˇ|åÁq[&\^æ^Ác@Á\c^|Á, -Á ~ã^Á;|[c^8cā]} Á[Á;@ÃÚ|[b^8cÁsc^adě) @ÁÚ|[b\8cÁsc+[Á] &] å^•Á; å°•Á] • cællæði]} Á Á; áæ^!Áæ) • Áæ) å Áã^Á@ålæ) • Á of ÁnceååÁn^, Á, æc^¦Ánof¦æt^Ánd;¦æt^Ánd;¦[c^8kodi} Ánce8dia@n•ÁniAn@A′^•c^¦}Afrai|•ÉAÚ/^¦Án@AÓædaaf¦}aædAOdi^AÔ[å^ÉA æÁj[¦æĬ}ÁjÁœÞÁ;æÞ¦ÁQ;æðð•Áàæ•^åÁj}Árã^Áæ)åÁj`{à^¦ÁjÁQ}{^•DÁ;ã|Áà^Á∧`čã^åÁjÁà^Áæ|[œ^åÁj¦Á ~ã^Á;¦[c^&cã;}Á•^¦çã&^•Áæ;àÁ&æ;}[cÁà^Á;•^åÁ;¦Á.^•ãå^}cãæ;Á;•^LÁc@áÁ;āl/Áà^Áæ&&[{]|ã@åÁà^ÁæÁ;[ææÁ • ā a&@ác@æaÁ, āļlÁà^Áā, • cæeļ/° å Áā, Ác@ Ácæ} \• ÈÁQ Ácœå å ã aã, } ÊÁÚ` à | ā&ÁÜ^• [` ¦ &^• ÁÔ [å ^ ÁÛ ^ &cā, } • Á, GJ €Áce) å Á, GJ FÁ &[}cæājÁsœååãããj}æþÁ^~~~ã^{^}o•Á[¦Áæèjå•Á,ão@ajÁx^¦^ÁPã @ÁØã^ÁÙ^ç^¦ãcÁZ[}^•Ás@æéÁ,[~|åÁsæ}]|^Ás[Ás@A ܦ[b^&qÆV@,•^Áş]&|`å^Æà`qÁæç^Á;[qÁāão°åÁq[Æko@Á[||[,ā]*Á,@a&@Áæc^Áå^•āt}^åÁq[Á,¦[çãå^Áå^-^}•ãà|^Á •]æ&^Áæ}åÁæ³^Á;|[c^&cai}Á;|Á;^_Á&;}•d*&cai}Áæ}åÁ^}•*|^Áæå^~~`æe^Á^{ ^¦*^}&^Áæ&&^••kÆj&\^æ•^åÁ] | [] ^ | c^ Á|ā, ^ Á• ^ càæ&\ • Á-{ | Áæ|Áæ}] | a&æà|^Á&[} • d` &aī, } LÁ[} Ë ãc^ Á, æc^| Á• q; | æt ^ Á-{ | Á-ā/Á] | [c^ &aī, } EÁ å¦ãç^, æê Ð[æå, æê Áŝ]^•Áse}åÁ;]^&ãã&Bæaã[}•Ásæ•^åÁs}Ás^•ã*}æc^åÁ.•æ*^LÆse|Á,^æc@⊹Ás¦ãç^, æêÐ[æå, æê Á • ˇ ├æ&^• Áà^ā ˇÁ\} ˇ ā ^^ ├^åÁ[ˈÂÍ ÉŒŒ]àÁ¢^ @&|^• LÁ œ¢ā[ˇ { Á|[] ^Á; ÁFÎ Ã ĹÁč ¦} [ˇ ÓÁ^ˇ ˇ ã^{ { ^} o• LÁ ææ^Á ¦^``ã^{^}o Áca}åÁ•^càæ&√•ÉÁ;æ√ã;*Á•cæ}åædå•ÉÁ·^|•Á/^å`&cã}}Á^*`|æcã|}•ÉÁ·08EÁOEIÁ·č'¦^Á/•ãå^}cãaþÁ å^c^|[]{ ^} oÁ, [` |åÁà^Á\^cā\, ^åÁà^Áà^Áà^Áà^] æ(^} oÁæ) åÁà^Á\^` ã^åÁt, Áæå@¦^Át, ÁælÁã^Áæ&^cÁ • cæ) åæ;å• ÉÁS) & | `åã] * Ás@)• ^ Án c&ÉÁ

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à DÍC ^ • Ác@ Á		⊠Á	∏Á	∏Á
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8]gW gg]cb. flutA@gg h ub g][b]Z]Wubh]a duwk h a]h a]h [uh cb]bWcfdcfuh x " ú | [b & & (] [} ^ o Á āj8|`åāj*Ás@^Áæ&``ãrānāj}ÊÁsej}^¢æænāj}ÊÁsejåÁ,¦^:[}āj*Áj-Ájæd-&^|•ÊÁsjÁsœååãnāj}ÁsjÁs@^ÁSjoŚSāj^ÁD£åbŏ•d;^}o•ÊÁ ¸[ˇ|åA}[O^ååā^&d^A¦^•ˇ|o^ðajA]@•a8ædAā[]æ&o•AqAo@A]@•a8ædA^}çā[}{^}dĒP[¸^ç^¦ĒPāj~¦æ•dˇ&c`¦^A a[] | [ç^{^{^}}, ^} o Áxe) å Áx@ Á, [o^} caad-Áx[} o d`&aa[} Á, -Á] Á(Á, ^ç^} Á a, * |^ Éaxe[aî ÁQ { ^ • Áxe) å Á, ^ç^} Áxe • [&aaxe^ å Á c@ÁÖ^ç^|[]{ ^}cÁCE |^^{ ^} dÉÁP`||ÁÚ|[]^|cãn•Áã Á&QQ[•ā]*Áq Ál^` ã^Ác@Árā]*|^Éæ(āj ÁQQ{ ^•Áq Áb^Á Ü^•da&qā}•ÁÇÔÔBÜ•DÁ{¦ÁÖ^ç^|[]{^}qÁÚæd&^|•ÁFËHÈQAÁæååããā}}ÊÉædç@`*@Á;[cÁ^``āl^åÊÁc@^Á;ãããæãã}}Á { ^æ `¦^•Ás[}œæj^å^åÁ¸ãœæjÁœðÁðÜTÞÖÁ[¦Á^•ãå^}œæqÁá°ç^|[]{^^}œÁ¸ã|Ásф•[Ásî^Ásj&|`å^åÁsjÁs@ÁÔÔBÜ•ÉÁ Ö^ç^|[]{^}@ÁÚæd&^|•ÁFÉHÁ¸ã||Ái@ā||Ás^Ásj&|`å^åÁsjÁs@Ásaj]|&Sææã[}Á[¦Ásaj}^¢ææã[}ÁsajåÁsi¦^:[}^åÁsjÁs]FÉPÉÁ ˇ}å^¦Ác@ÁÔ[ˇ}৫Áœn)åÁÔã6c|Aŭ¦ãråå&3ca[}ÈÄOT≘Áå^•&¦ãa^åÁc@[ǐ*@[ĭ 6QcóAc@ÁQ)ãããæn)ÄÜcå°ËÄ&[}•dĭ&ca[}Áæn)åÁ * | [` } å /\$åārc`| àāj * Áxe\$cāpātā • Áxe• • [&āxee ^ å Å, ãt @Áx@• • ^ Æs[{] [} ^ } o• Æs[` | å Áx• • ` | c/Áş /ååā ^ & c/Á ā } ã ã&æ) c/Át] æ&o• Á æ) å ÁPæ æ¦å[ˇ•ÁTæc^¦ãæd•ÉÁP¯å¦[|[*^Áæ) å ÁY æc^¦ÁÛ`æhâcÊÁÞ[ã^^ÉÁWdājāzð•Áæ) å ÁÛ^¦çā&^ÁÛ¯•c^{•ÉÆæ) å Á Yājå-āj^ÈÁP[¸^ç^¦ÉÁ(ãzðiæaj}}Á(^æe`¦^•Áāā^}cãað å Á,ão@ajÁc@ Áæe[¦^{^}cāj}^aá Ár^&cāj}•Á;[`|å Ál^å`&^Á ã] æ&o•Ág ÁYggʻh\Ubʻg][b]Z|WUbhik]h\'a]h[[Uh]cbʻ]bWcfdcfUhYXEÁ

- $$\begin{split} \text{FEA} & \text{OFCRAPACE} \& @ [\parallel * \text{alkaph} \hat{O} [\} \bullet * \mid \text{ca} * \text{ACCFRAPACE} \& @ [\parallel * \text{alkaph} \hat{U} * \mid \text{c}^{^} \text{AU}^{^}] \ [\mid \text{ch} \text{CCFD} \hat{U} \text{DEH} \hat{O} \text{acc} \text{A} \text{ANN} \text{acc} \text{ANN} \\ & \text{Y} \land \bullet \text{ch} \text{Y} \land \text{PAP} \text{ACE} \text{Y} \land \text{CAPACE} \text{ACE} \text{Y} \land \text{CAPACE} \text{ACE} \text{ACE$$
- HÉÁ ÔæÞÁØÃ ^ÉÉÔæÞÃ[¦} ãæÁØÃ ^ÁPææååÁÙ^ç^¦ãcÁZ[}^ÁTæÞÁ ^àÁXà ¸^¦ÉÁ @cd HEÐ *ã Èà ^ÈBæÈ [cEØPÙZÐÁ
- Í EÁ Ôæṭã[¦}ãædÖ^]æbq(^}of(-ÂÔ[}•^¦çææā[} EÁÔæṭã[¦}ãædŐ^[∥[*a8æṭÁÛ*¦ç^^EÁWÈÜEĞSæţå•|ãå^Á
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- ÏΕĂÔæţā[¦}ãæ¢Ö^]ætq(^}σή(•ÁØξ)æ)&^ÈĂŒţ^!ã&æ)ÁÔ[{{`}ãcÂÛ`¦ç^^ÈĂ @cd MeD;; Èā[-È&æÈ[çeDÜ^][¦σ•ΘÖ^{[*|æ]@a&´Ü^][¦σ•ΘΟξ^\¦ã&æ)´Ô[{{`}}ãc´Û`¦ç^^ÁÁ
- Ì EÁ Ôæpā[¦} ãædÖ^]ædd ^}on[rád[rádð]æðe A/ÁO[}d[|ÈÁO}çã[Ùd[¦Ásaæææææ^Á @d • MED _ E}}çã[•d[¦Eão & B&æe [ç£AÁ
- $J \stackrel{.}{\text{E}} \hat{O} \stackrel{.}{\text{aff}} [\] \stackrel{.}{\text{aff}} \stackrel{.}{\text{aff}} [\] \stackrel{.}{\text{aff}} \stackrel{.}{\text{aff}}] \stackrel{.}{\text{aff}} [\] \stackrel{.}{\text{aff}} \stackrel{.}{\text{aff}} \stackrel{.}{\text{aff}}] \stackrel{.}{\text{aff}} \stackrel{.}{\text{$
- $F \in \widetilde{H} \widehat{O} =
- FCHÁÓ ãC Á; -ÁM ãæ ĐÁÓ ãC &|^ Á&; åÁÚ^å^• dã; ÁT æ• c^¦ ÁÚ|æ; HÁÚ|æ; HÁÚ|^] æ; ^åÁi^ ÁŒ;æÁÚ|æ; } ā; * ÆÁÖ^• ã } ÉÁ Y ɽ; æ; • Áæ; åÁ⁄ æ; ÁÓã ^ÁT ^} å[&ā; [HÁOÉ * * • cÁCEFÍ HÁ
- $FHEÄD ac Á ANN accelló [a^ES accele ^ } a^a ADECFE ACCELE ACC$
- FI EÁÔãCÁ, ÁM Ü@EÁP[*•¾*ÁÒ|^{^}œM]åææ^ÁGEFJEGECÏ EÁOTĀ[]¢^åÁU&Q à^¦ÁQHEÁGEFJÁæ)åÁ
 Ô^¦œãAåÁs^ÁPÔÖÁÖ^&^{ à^¦Á ÉÁGEFJÈ©Z MEQ , B&ÃC[~\ãæ@EX[{ ED||b^&o*EQ)*•¾*Ë
 ^|^{ ^} CË]åææ^EÁ
- FÍ BÁZÔ^å^¦æ|ÁP∄ @ æ ÁDÃ{ ãjãrdæaā[} BÁG€€Î BÁÜ[æå¸æ ÁÔ[}•dˇ&cā[}ÁÞ[ãr^ÁT[å^|ÁÇZPY CŒ PÒÚBÉÍ BÉÍIDÁÁ

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ÎÎÁ

- FÌ ĐẾỢ P Θ ĐẾY œơ \ Á Væ) \ ÁÚ |æ) } ¾ * ÁÙ ở å ÁT ^{ [¦æ) å ˇ { ĐẾN ¦^] æb ^ å ÁB ^ ÁÕ P Θ ĐẾΘ ^ &^{ à ^ ¦ÁF € ĐẾΘ € Θ ĐẾΑ Á
- GEÉÁRæ&[à•:[[}Áæ)åÁOŒ•[&ææ^•ÉÁQ,&ÉÁÓ¾[[*a&æ)ÁOŒ•^••{ ^}cÁOťåå^}å*{ Á+[¦ÁÜæ;^ÁÚ]æ)cÁ
 OΥ^••{ ^}cÁæ}åÁÓ[æ)å&æ)ÁÚ*;ç^^Á{¦ÁOťÚÞ•Á€€FËÐ €Ê HÆFÍÏ ËÐ €ËÐFÆFÍÏ ËÐ €ËÐÆÐÆ;åÁ
 €€1-ÉFJ€ËÐFÆK*|^ÁJÆG€€FÉÁ
- GOĐÁT^}å[&ã][ÁÔ[ˇ]&ÃIÁ;ÁŐ[ç^\}{^}œÁÇTÔUÕDŘÓGEFÏÁT^}å[&ã][ÁÔ[ˇ)ċÁÜ^*ã[}æþÁ V¦æ)•][¦œæā[}ÁÚ|æ)ÞÁÚ|^]æb^åÁsîÁÖææ^^ÁÓææ^•ÁÔ[}•ˇ|œ]*ÞÁOÐå[]œ³åÁØ^à¦ˇæфÂÍÞÁG€FÌÞÁ @œd•MED; Èţ^}å[&í[¼]*È;*Ðã/•ÐÎIGHHEÏÍ€ÐЀFÏÉÜVÚÉO•ÉŒå[]æ³åÃĠì¸^àÉ-∫;{æ gÃGJÈ;å-ÁÁ
- CHÉT $^{\}$ å[& 4] [ÁÔ[$^{\}$] $^{\}$ ć ÁO BÁÛ $^{\}$ æbác ÁT æb æt $^{\}$ $^{\}$ óÁÖ æ d & CóÁ, $^{\}$ æbác ÁÖ æbá[$^{\}$] æbác [$^{\}$] æbác ÁT æbóc [$^{\}$] æbác ÁT æbóc $^{\}$ óÁÚ [æbác $^{\}$] æbác ÁT æbóc $^{\}$ æbác $^{\}$] æbác $^{\}$ æbác $^{\$
- GIÈÁT^}å[&3][ÁÔ[ˇ]cీÁOEāÁÛˇæþácÁTæ)æt^{^}oÁÖærdækoÁ,^à•áæ^ÈÁ @cdHeÐ, ÈkiÈ ^}å[&3][È&æÈ•Ðæĕ{åÐàð•^|Ë}*ã,^Ëà,4¦{ææā}}È@c|ÈÁ
- GÍEÁT^}å[&ā][ÁÔ[ˇ}♂ÁŒā][¦αÄŠæ)åÁN+^ÁÔ[{{ã•đ₄}}EÁT^}å[&ā][ÁÔ[ˇ}♂ÁŒā][¦αÁ Ô[{]¦^@}}•ã;^ÆŠæ)åÁN+^ÁÚ|æ)ÈÄÜ^çã;^åÁRˇ}^ÂÎEÁFJJÎEÁ
- QÎ ÊÁT^}å[84][ÁÔ[ˇ]cÂØã^ÁPæææååÁÙ^ç^¦ãcÁTæ;ÈÁÞ[ç^{ à^¦ÁIÊÆ€€ËÊÁ
- Cì ÉÁT ^} å[&ða [ÁÔ[ˇ } c² ÁT ˇ | cáÉTˇ | cáÉTˇ | cá á 86cá } aþÁP æ æb å ÁT ácá æcá } ÁÚ|æþ ÁÇT RPT ÚDÁÓCå[] c^ å Á Ö^ &^{ à^ | ÉÁGEGEEÁK[| ÁGÉÁG @æþ c | ÁFÉÁG ác Áp ÁKK áægÁRť | ár å á8cá } æþÁCE; } ^ ¢ÉÁæå[] c^ å Ás ^ Ás@ Á Ôác Áp ÁKK áægÁÞ[ç^{ à^ | ÁFÌ ÉÁGEGEEÁ
- HۃÁT^}å[&&][ÁÔ[ˇ]ĉÁÚ¦[]^¦ĉÁÛ^æ&®ÁÇVÜCESÃ/DÉÁ @c| KHBDdæ&\ ãÉAV[È; ^}å[&&][È&æÈ•^dæ\ ãHÐD)^æ&&@Dæ&&^|Èæ•]¢ÁÁ

- HGHÁT^}å[84][ÁÔ[ˇ] c´ÁY 4¾å|æ)åBWàæ)ÁQ)c^\-æ8^ÁQY WODÁZ[}^•ÁTæ)ÊÁ}åæe^åÈÁ
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- HHEÀT^}å[&@][ÁÔ[ˇ] c´ÁÕ^}^¦æþÁÚ|æ)EÁsæå[] c^åÁSjÁG€€JÁsæ)åÁpæe cÁ^çãi^åÁG€FÍEÁ
 @@c HED; _ È ^}å[&ã[[&[ˇ] c´È'+D[[c^!]{^}dD]æ)}ā]*Ëaˇāåā]*Ë
 •^¦cæX^•Diæ)•D) ^}å[&ã[[ËX]ˇ] c´Ë^}^¦æ#Ä |æ)ÁÁ
- H LÉT^} å[84][ÁÔ[*] c ÁGEFJEGEG ÁP[*•4]*ÁÒ|^{^} cÁÇ ®ÁÔ^8|^DÉGEEÉÁ
 @cd HED) _ LÈ ^} å[84][8| * } c È L** D*[c^\!} { ^} dED | aa; } 4 * Éa * 4å 4 * Ë

 •^\cab*(-28*)•D | aa; EQ * 4 * ^|^{ ^} cÁÁ

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- Hì ĐÂÚ cæc^Á/ æc^¦ÁÜ^•[~; \&^•ÁÔ[}d[|ÁÓ[æhá ĐÃÕ^[V;æ&\^; ÞÁ @d]•MED^[dæ&\^; È;æc^; à[æhá•B&æh≧[ç ÞÁ
- HJÉÁJ~ãX^Á; ~ÁÚ|æ}} ã; * Áæ} å ÁÜ^• ^æ&@ÁQJÚÜDÁV^&@; &&æÁQĒāçã;[¦^Á;} ÁÒçæ; ææã; * ÁV¦æ;•][¦ææã;} Á
 Q;]æ&œ•ÁQJÁÖÒÛQŒÉÖ^&^{ à^¦ÁG€FÌĒ<u>Á@d;• Kæp; j; È;}¦BòæÈ;[ç£ã;[&•£05€FJ€FGGË</u>
 ÏIH′V^&@; &&æ;ć C£ãcã;[¦^È;å-Á
- I ۃÁNNÈÙÉÖ^]æd{ ^}œ¼ -ÁOE ¦æc'|c' ¦^ÆÉÛ[āÁÔ[}•^¦çæðā[}ÁÛ^¦çæðA'ÉÁY ^àÁÛ[āÁÛ'¦ç^^ÉÁ @cd•MED ^à•[ā*'¦ç^^É&É**[çÈ•åædE];çEOE[]EP[{ ^Úæt^É@a'AÁ
- I FÉÁNÉÙÉÄÖ^] ædq ^} ơÁ, ÁĐà ĐÁĐ ÅÁ đá ĮÃ^ÉÓ} çã[} { ^} æðÁÔ[} ^ ¦ çæðá] } ÁU } Įà ^ÁÛ^ ♂ { ÉÁ @ d ÆÐ & l È È [cÐ & l EÞ)] [¦ ơ Ð] ^ & ð Ëã « ° å Ëã ° © ææ° Ë^] [¦ ơ Ø OBB ææ Mà ° å Á

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U![b\8c\\ 8[}\delta\\ 8[}\delta\\\ 8[]\delta\\\\ 8[]\delta\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	<5 N!% 'Á'@ Áå^ç^ []^!Á @#Á*• œ# [ã @## å Á ã]] ^{ ^} o*8[} • d* &@] Á* æ* !ã# Á# æ# ^{ ^} o# !æ&æ A]] ^{ ^} o*8[} • d* &@] Á* æ* !ã# Á# æ# ^4 o@ !Áå^à!ã Á C@## Ā] Ā A' A' A' A' A' A' A' A	Ö^ç^[[]^¦Á	Ö^ç^ []^¦Á	Ö`laj*Á &{}•d`&ca[}Á
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Õ¦[`}åÁ åãrc`¦àāj*Á æ&cājãaãn•Áæ)åÁ &[}•d`&cāj}Áj-Á c@Aj¦[b^&c4,[` åÁ	BC=1% ÁÚ¦ā[¦Áq[Áà`ā¦åā]*Á]^¦{ãoÁ[¦Á*¦æåā]*Á]^¦{ãoÁ ã•`æ)&^ÉÀ c@`Áå^ç^ []^¦Á•@æ Á&[{] ^Á¸ão@Ác@^Á -{ [¸ā]*hÁ	`Ö^ç^[]^¦Á	Ö^ç^[[]^¦Á	Úlā[lÁ[Á ār• ĭæ)&^Á[-Á à ĭā¦åā]*Á[lÁ *læåā]*Á]^!{āærÉÄ	

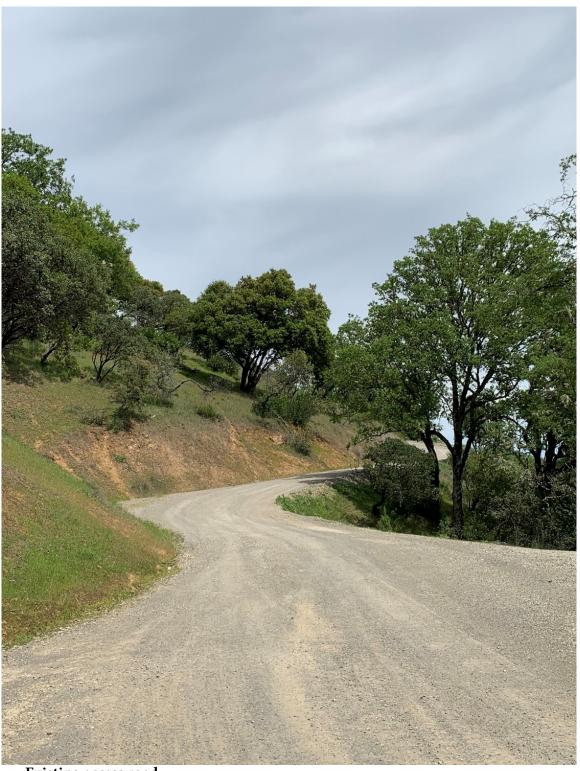
City of Ukiah

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Existing Site Photographs



Existing access road



Existing water tank site



Existing "house site" on one of the proposed Development Parcels



natural resource planning & management



Biological Assessment Report

Prepared For:

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APNs: 001-040-83, 157-070-01, 157-070-02, and 003-190-01

Prepared by Jacobszoon & Associates, Inc.

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Section 1.0: Introduction

This biological assessment was prepared by Jacobszoon and Associates Inc. for the City of Ukiah for the purpose a lot line adjustment to reconfigure parcels for future single-family residential development on approximately 55 acres. The project site is located just west of Ukiah, CA within Sections 19 and 30, Township 15N, Range 12W, Mount Diablo Base and Meridian, in the Ukiah USGS 7.5-minute quadrangle, APNs: 001-040-83, 157-070-01, 157-070-02, and 003-190-01 (Appendix D: Map 1, Study Area-Topographic Map). A site visit was conducted on February 5, 2021. A botanical survey was conducted on March 30, 2021. Additional botanical survey results will be amended in once completed.

The purpose of this study was to identify and map areas within the parcel that are potential sensitive natural communities and to locate special-status plants and special-status animal habitats to determine if they would be directly or potentially impacted by the proposed project. The Study Area referred to within this report comprises approximately 55 acres and includes existing dirt and gravel roads, fire breaks, water tank pad sites, and areas cleared for potential house sites (Appendix D: Map 2, Study Area-Aerial Map).

This report includes the following:

- Regulations and Project Description (Section 2)
- Field Survey Methodology (Section 3)
- Study Area Setting (Section 4)
- Field Survey Results (Section 5)
- Assessment Summary and Recommendations (Section 6)
- Tables of Special-Status Plants and Wildlife within CNDDB nine quads (Appendix A)
- List of Species Observed (Appendix B)
- Representative Photographs of Study Area (Appendix C)
- Supporting Maps (Appendix D)
- Supporting Documents (Appendix E)

Section 2.0: Regulations and Descriptions

2.1 Regulatory Setting

In addition to the requirements of Mendocino County's permitting process, the project shall comply with Federal, State, and local regulations designed to protect sensitive natural resources. The following natural resources are protected under one or more of several Federal and/or State regulations and should be considered when designing and/or implementing the proposed project within the Study Area:

Essential Fish Habitat: protected through changes to the Magnuson-Stevens Fishery Conservation and Management Act to maintain sustainable fisheries in the United States, administered by National Marine Fisheries Service (NMFS):

• Includes habitats (rivers, creeks, estuaries) that may support anadromous fish (fish migrating from ocean habitat into freshwater river habitat), as well as commercially and/or ecologically valuable fishes.



<u>Streams, Lakes, and Riparian Habitat:</u> protected under the California Fish and Game Code (CFGC), administered by the California Department of Fish and Wildlife (CDFW):

• Includes creeks and rivers (bodies where water flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life), and vegetation adjacent to and associated with (riparian habitat).

Waters of the State: protected under the State Water Resources Control Board

Waters of the U.S.: protected under the Clean Water Act (CWA), administered by the Environmental Protection Agency (EPA) and U.S. Army Corps of Engineers (Corps):

• Includes wetlands, streams, rivers, and other aquatic habitats meeting the guidance issued by the Corps.

2.2 Natural Communities and Sensitive Natural Communities

<u>Sensitive Natural Communities:</u> protected under the California Fish and Game Code (CFGC), administered by California Department of Fish and Wildlife (CDFW 2020):

• Includes terrestrial vegetation or plant communities that are ranked by NatureServe and considered "threatened" or "endangered" by CDFW, lists of such are included in *List of Vegetation Alliances and Associations* (CDFW 2020).

2.3 Special-Status Species

<u>Special-status Plant and Wildlife Species including Critical Habitat:</u> protected under one or more of the Federal Endangered Species Act (ESA), California Endangered Species Act (CESA), California Environmental Quality Act (CEQA), administered by the U.S. Fish and Wildlife Service (USFWS), and/or CDFW:

- Includes plants listed under the ESA and/or CESA, or those plants ranked by the California Native Plant Society (CNPS) as Rank 1, 2, 3 and 4.
- Includes wildlife listed under the ESA and/or CESA, and wildlife listed by CDFW as Species of Special Concern, Fully Protected Species, and/or Special status including Invertebrates, Birds of Conservation Concern listed by USFWS, Species of Concern listed by National Marine Fisheries Service (NMFS), Western Bat Working Group (WBWG).

Section 3.0: Field Survey Methodology

3.1 Assessment Methods

The biological resource assessment is designed to identify sensitive communities within the Study Area and determine the existence or potential occurrence for special-status species. The assessment is also designed to address the potential for cumulative impacts to biological resources that may occur as a result of the project and to make recommendations to reduce or mitigate potential impacts.



The biological resource assessment includes the analysis and comparison of existing habitat conditions within the Study Area and the documented range and habitat requirements of sensitive plant and wildlife species described in CDFW's California Wildlife Habitat Relationships System (CWHR).

Jacobszoon & Associates Inc. senior biologist Alicia Ives Ringstad conducted a biological resource assessment of the Study Area on February 5, 2021, consisting of approximately six (6) hours. The Study Area was assessed to document: (1) the on-site plant communities, (2) existing conditions and their ability to provide suitable habitat for any special-status plant or wildlife species, and (3) if sensitive biological communities (e.g. wetlands, vernal pools) are present.

Plants species observed during the site assessment were recorded and are listed in Appendix B. Plants listed in Appendix B were identified using *The Jepson Manual: Vascular Plants of California 2nd Edition* (Baldwin et al. 2012) to the taxonomic level necessary to determine rarity. The names provided in this biological assessment report follow *The Jepson Flora Project* (JFP 2021).

3.2 Database and Resource Descriptions

Prior to conducting field surveys, available reference materials were reviewed, including the United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) *Web Soil Survey,* the United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI), the Ukiah 7.5'-minute USGS quadrangle topographic map, and the most recent available aerial imagery. The 100-year flood zone was assessed using the Federal Emergency Management Agency's (FEMA) National Flood Hazard Layer (NFHL) (Appendix D, Map 8: FEMA National Flood Hazard Layer Map). The location of streams and watercourses within the project vicinity were reviewed using datasets from California Streams and the California Department of Forestry and Fire Protection (CAL FIRE).

Existing vegetative communities were reviewed using CDFW's Vegetation Classification and Mapping Program (VegCAMP) data for the potential existence and location of sensitive biological communities including Mendocino Cypress (*Hesperocyparis pygmaea*) and related vegetation. Where VegCAMP data was not available, existing vegetative communities were reviewed using USDA Forest Service Classification and Assessment with Landsat of Visible Ecological Groupings (CALVEG) data.

Databases queried for the occurrence of special-status species include the USFWS Information for Planning and Consultation (IPaC), California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (online edition, v8-03 0.39), and the California Department of Fish and Wildlife California Natural Diversity Database (CNDDB) Spotted Owl Data Viewer, RareFind and Quick Viewer processed and unprocessed data (online edition, v5.94.01). The CNDDB consists of mapped overlays of all known populations of sensitive plants and wildlife. The database is continually updated with new sensitive species population data.



The CNPS database produces a list of sensitive plants that have population occurrences registered within the scoping range. Various habitat characteristics are included with each listed species, including location of the Study Area with regard to the geographic range of sensitive plant species, location(s) of known populations of sensitive plant species as mapped in the CNDDB, soils of the Study Area, elevation, presence/absence of special habitat features (vernal pools, serpentine/volcanic soils, etc.) and plant communities existing within the Study Area.

While use of the CNPS inventory does not eliminate the need for an in-season botanical survey, it can, when used in conjunction with other information, provide a very good indication of the suitability of a site as habitat for sensitive plant species. The CNDDB consists of mapped overlays of all known populations of sensitive plants and wildlife (Appendix D, Map 3: CNDDB Vicinity Map). The database is continually updated with new sensitive species population data.

California Wildlife Habitat Relationships (CWHR) Predicted Habitat Suitability is a dataset accessed through CNDDB BIOS Commercial/Spotted Owl Viewer that represents areas of suitable habitat within species' documented ranges. Examination of the CWHR dataset was applied when: 1) the data is available for the species of concern, and 2) when there is a moderate to high potential for an animal to occur on or within 100 feet of the Study Area. CWHR examines whether the areas being examined in the biological assessment is habitat which *may* support a species of special concern. Habitat suitability ranks of Low (less than 0.34), Medium (0.34-0.66) and High (greater than 0.66) suitability are based on the mean expert opinion suitability value for each habitat type for breeding, foraging, and cover (CDFW 2021).

3.3 Database Resource Assessment

A scoping of the CNDDB and CNPS Inventory of Rare and Endangered Plants was performed to identify existing and historical occurrences of special status species and sensitive terrestrial communities within the project vicinity. The scoping extended to twelve quads surrounding and including the Ukiah 7.5-minute USGS Quadrangles and included the Boonville, Cow Mountain, Elledge Peak, Laughlin Range, Orrs Springs, Potter Valley, Purdy's Gardens, Redwood Valley, and Ukiah 7.5-minute USGS Quadrangles. In addition, a 0.25-mile radius scoping area was completed for the identification of northern spotted owl (*Strix occidentalis caurina*, NSO) Activity Centers. No spotted owl territories (Activity Centers) are located within the 0.25-mile buffer.

Prior to the site visit, the databases listed above were accessed to determine whether sensitive biological communities, special-status species or other sensitive areas were documented within the vicinity of the Study Area (Appendix D: Map 3, CNDDB Vicinity Map). During the site visit, existing habitat conditions were evaluated and used to assess the potential for presence of special-status species. The potential for each special-status species to occur in the Study Area was then evaluated according to the following criteria:

• <u>No Potential:</u> Habitat on and adjacent to the Study Area is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).



- <u>Unlikely:</u> Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the Study Area is unsuitable or of very poor quality. The species is not likely to be found on-site.
- <u>Moderate Potential:</u> Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the Study Area is suitable. The species has a moderate probability of being found on-site.
- <u>High Potential</u>: All the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the Study Area is highly suitable. The species has a high probability of being found on-site.
- <u>Present:</u> Species is observed on the site or has been recorded (i.e. CNDDB) on-site recently.

A complete list of all special-status species and communities listed in the nine-quad scoping of the CNDDB and CNPS as well as those listed in an official USFWS IPaC search of the project area is included in Appendix A: Scoping Table of Special-Status Species and Communities and Potential to occur within the Study Area, and in supporting documents within Appendix E.

3.4 Biological Communities

Biological communities present within the Study Area were classified based on existing plant community descriptions described by Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986), USDA Forest Service Classification and Assessment with Landsat of Visible Ecological Groupings (CALVEG) system, and the Manual of California Vegetation Online Edition (MCV2 Alliances, CNPS 2021b). However, in some cases it may be necessary to identify variants of community types or to describe non-vegetated areas that are not described in the literature. Biological communities were classified as sensitive or non-sensitive as defined by CEQA and other applicable laws and regulations.

The currently accepted vegetation classification system for the state that is standardly used by CDFW, CNPS, and other state and federal agencies, organizations, and consultants for survey and planning purposes is the *Manual of California Vegetation* (MCV; Sawyer, Keeler-Wolf, and Evans 2009). Unlike Holland, this vegetation classification system is based on the standard National Vegetation Classification System (NVCS) and includes alliances (a floristically defined vegetation unit identified by its dominant and/or characteristic species) and associations (the finer level of classification beneath alliance).

Although the CNDDB still maintains records of some of the old Holland vegetation types, these types are no longer the accepted standard, and the CDFW Vegetation Classification and Mapping Program (VegCAMP) has published more recent vegetation lists for the state based on a standardized vegetation classification system that is currently being developed for California and which is consistent with the MCV classification system. Global and state rarity rankings have been assigned for various types on the recent VegCAMP lists.



3.4.1 Non-sensitive Biological Communities

Non-sensitive biological communities are those communities that are not afforded special protection under CEQA, and other Federal, State, and local laws, regulations, and ordinances. These communities may, however, provide suitable habitat for some special-status plant or wildlife species, and are described in Section 5.1.

3.4.2 Sensitive Biological Communities

Sensitive biological communities include those that are listed in CNDDB as well as MCV2 alliances or associations with state ranks of S1-S3. Aquatic resources (e.g. watercourses, ponds, wetlands, vernal pools, etc.) are also considered sensitive biological communities and are afforded special protections under CEQA and other Federal, State, and local laws, regulations, and ordinances. Sources for assessing sensitive terrestrial or aquatic natural communities include *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986), *List of Vegetation Alliances* (CDFW, 2020), *A Manual of California Vegetation* (CNPS 2021b), California Streams, and USFWS National Wetlands Inventory (NWI).

Sensitive Natural Communities

CDFW considers any MCV2 alliance or association with a state rank of S1-S3 a sensitive natural community. Global and state rankings are defined below.

Global Ranking:

- G1-Critically Imperiled: At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.
- G2-Imperiled: At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.
- G3-Vulnerable: At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.
- G4-Apparently Secure: Uncommon but not rare; some cause for long-term concern due to declines or other factors.
- G5-Secure: Common; widespread and abundant.

State Ranking:

- S1-Critically Imperiled: Critically imperiled in the state because of extreme rarity (often 5 or fewer populations) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the state.
- S2-Imperiled: Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the state.
- S3-Vulnerable: Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the state.
- S4-Apparently Secure: Uncommon but not rare in the state; some cause for long-term concern due to declines or other factors.
- S5-Secure: Common, widespread, and abundant in the state.



Critical Habitat

Critical habitat is a term defined by the ESA as a specific geographic area that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. The ESA requires federal agencies to consult with the USFWS to conserve listed species on their lands and to ensure that any activities or projects they fund, authorize, or carry out will not jeopardize the survival of a threatened or endangered species. Federal agencies must also ensure that their activities or projects do not adversely modify critical habitat to the point that it will no longer aid in the species' recovery. In many cases, this level of protection is similar to that already provided to species by the ESA jeopardy standard. However, areas that are currently unoccupied by the species, but which are needed for the species' recovery, are protected by the prohibition against adverse modification of critical habitat.

Aquatic Resources

Watercourses and other waterbodies were classified using guidance from the *California Forest Practice Rules 2020* (FPR). Wetlands are determined using the USFWS National Wetland Inventory (NWI) database and are defined in the 1987 USACE Wetlands Delineation Manual as "Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Wetlands generally include swamps, marshes, bogs, and similar areas. Wet areas are areas with observed hydrophytic vegetation and/or other hydrologic indicators that suggest the area is influenced by ponding or flooding for a significant amount of time throughout the growing season. Wet areas should be given the same protections as wetlands for the purposes of this assessment until a wetland delineation is conducted to confirm the presence and extent of wetlands.

3.5 Special-status Species

Special-status plants (native, vascular and non-vascular) and animals assessed are of limited abundance in California, with known occurrence or distribution in Mendocino County, and were derived from the following lists:

- Federal listed or threatened or endangered plants or species of concern (FT, FE, FSC)
- California State listed or rare, threatened or endangered plants or species of concern (SR, ST, SE, SP, SSC)
- Board of Forestry Sensitive (BFS)
- California Department of Fish and Wildlife (CDFW) Status animals: Fully Protected, Species of Special Concern and Watch List (FP, SSC, WL)
- California Native Plant Society Rare Plant Rank (CRPR) list 1A species (plants presumed extirpated in California, and either rare or extinct elsewhere)
- California Native Plant Society Rare Plant Rank (CRPR) list 1B species (plants rare, threatened or endangered in California and elsewhere)
- California Native Plant Society Rare Plant Rank (CRPR) list 2A species (plants presumed extirpated in California but more common elsewhere)
- California Native Plant Society Rare Plant Rank (CRPR) list 2B species (plants rare, threatened, or endangered in California but more common elsewhere)
- California Native Plant Society Rare Plant Rank (CRPR) list 3 (plants which more information is needed- a review list)



•Á California Native Plant Society Rare Plant Rank (CRPR) list 4 (plants of limited distribution – a watch list)

Rare, threatened, and endangered plants are not necessarily limited to those species which have been "listed" by state and federal agencies but should include any species that, based on all available data, is rare, threatened, and/or endangered under the following definitions:

A species, subspecies, or variety of plant is "endangered" when the prospects of its survival and reproduction are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, over-exploitation, predation, competition, or disease. A plant is "threatened" when it is likely to become endangered in the foreseeable future in the absence of protection measures. A plant is "rare" when, although not presently threatened with extinction, the species, subspecies, or variety is found in such small numbers throughout its range that it may be endangered if its habitat continues to deteriorate.

The site assessment is intended to identify the presence or absence of suitable habitat for special-status species known to occur within the Study Area. The site visit does not constitute a full season protocol-level survey and is not intended to determine the actual presence or absence of a species. If a special-status species is observed during the site visit, its presence will be recorded and discussed. All plant and wildlife species observed were recorded and are included in Appendix B.

Section 4.0: Study Area Setting

4.1 Climate and Hydrology

The project site is located west of Ukiah, CA within Sections 19 and 30, Township 15N, Range 12W, Mount Diablo Base and Meridian, in the Ukiah USGS 7.5-minute quadrangle (Appendix D: Map 1, Study Area). The Study Area is located along a ridgetop that divides the Orrs Creek – Russian River watershed (HUC-12, 180101100403). The average annual precipitation is 41 to 63 inches, the average annual air temperature is 55-60 degrees F, and the average frost-free period is 240 to 340 days.

4.2 Topography and Soils

The Study Area is located at approximately 840-1,600 feet in elevation and is underlain by two (2) soil mapping units, according to the United States Department of Agriculture, Natural Resources Conservation Service's *Web Soil Survey*: Map Unit Symbol 141, Hopland loam, 30 to 50 percent slopes; and Map Unit Symbol 151, Hopland-Wohly loams, 50 to 75 percent slopes (Appendix D: Map 4, Soil Map). A description of the soil series are as follows:

Hopland loam, 30 to 50 percent slopes (Map Unit Symbol 141): This map unit is located on mountains and hills. Included in this unit are small areas of Squawrock, Hellman, Witherell and Cummiskey soils. California black oak and Pacific madrone are the main tree species. Among the trees of limited extent are Douglas-fir, Oregon white oak, interior live oak and blue oak. The elevation range is 490 to 2,400 feet.



•Á Hopland loam is moderately deep, well drained soils formed in material weathered from sandstone and shale. Redvine soils are on dissected stream terraces and have slopes of 2 to 30 percent.

<u>Hopland-Wohly loams</u>, 50 to 75 percent slopes (Map Unit Symbol 151): This map unit is on hills and mountains. Included in this unit are small areas of Bearwallow, Cassabonne, Hellman and Squawrock soils. The native vegetation is mainly oaks and scattered pockets of Douglas-fir. The elevation range is 500 to 2,500 feet.

- •Á Hopland soil is moderately deep, well drained soils formed in material weathered from sandstone and shale.
- •Á Wholy soil is moderately deep, well drained soils formed in material weathered from sandstone and shale.

4.3 Biota and Land Use

Regionally, the Study Area has historically been used primarily for timber and firewood production, recreation, homesite development, and wildlife habitat (USDA Web Soil Survey, 2021). Section 5 provides a detailed account of the biological communities found on-site, including sensitive and non-sensitive biological communities and additionally the special-status flora and fauna with potential to occur within the Study Area.

Section 5.0: Field Survey Results

5.1 Biological Communities

The Study Area and immediate surroundings were assessed prior to a site a visit on February 5, 2021 to determine local biological communities present and develop a comprehensive list of all plant and wildlife species that may be present. Natural communities referred to in this report include Holland 1986 descriptions, USFS CALVEG classifications, and the Manual of California Vegetation (MCV2) alliance descriptions.

Holland Descriptions:

The Study Area is within Cismontane woodland, Valley and foothill grassland and Broadleaved upland forest habitat as best classified by the habitat classification system described by Holland 1986. Descriptions of these habitat types are as follows:

- •Á <u>Valley and Foothill Grassland</u>: Introduced, annual Mediterranean grasses and native herbs. On most sites the native bunch grass species, such as needle grass, have been largely or entirely supplanted by introductions. Stands rich in natives usually found on unusual substrates, such as serpentinite or somewhat alkaline soils.
- •Á <u>Cismontane Woodland:</u> Trees deciduous, evergreen, or both, with open canopies. Broadleaved trees, especially oaks, dominate, although conifers may be present in or emergent through the canopy. Understories may be open and herbaceous or closed and shrubby. This type occurs on a variety of sites below the conifer forests in Mediterranean California.



•Á <u>Broadleaved Upland Forest</u>: Stands of evergreen or deciduous, broadleaved trees 5 meters or more tall, forming closed canopies. Many, but not all, with very poorly developed understories. Several are seral to montane conifer forests. It includes the "mixed evergreen forest" of the Coast Ranges.

USFS CALVEG Classifications:

According to USDA Forest Service CALVEG mapping delineation, the regionally dominant vegetation type within the Study Area is comprised of Black oak, Oregon white oak, Pacific Douglas-fir, Douglas-fir-Ponderosa pine, Interior live oak and Interior mixed hardwood (Appendix D: Map 5, CALVEG Classification Map). Descriptions of these vegetation types are as follows:

- A California Black oak: California Black Oak (Quercus kelloggii) occurs extensively in this zone at elevations up to about 6000 feet (1830 m). It has been mapped abundantly as a dominant hardwood in the Eastern Klamath Mountains and Oregon Mountain Subsections (Mountains Section) and in the Eastern and Central Franciscan and Konocti Flows Subsections (Ranges Section) and scattered 13 among twenty-five other subsections in the three sections. It may develop into relatively pure stands on moderately steep slopes or may associate with Oregon White Oak (Q. garryana var. garryana) and/or Canyon Live Oak (O. chrysolepis) on drier or harsher sites. These stands are commonly found within or below the Douglas-fir (Pseudotsuga menziesii), Mixed Conifer - Pine and Ponderosa Pine (*Pinus ponderosa*) types, often as a result of fire or other disturbance, especially in Douglas-fir areas. Black Oak commonly is a major understory hardwood in those conifer types and also typically grows on better soils than those of the Canyon Live Oak-dominant type. Commonly associated shrubs include both upper and lower montane species such as various Manzanitas (Arctostaphylos spp.), shrub Oaks (Quercus spp.), Deerbrush (Ceanothus intergerrimus), Brewer Oak (Q. garryana var. breweri), Wedgeleaf Ceanothus (C. cuneatus), etc.
- •Á Pacific Douglas-Fir: Douglas-fir (*Pseudotsuga menziesii*) is the dominant overstory conifer over a large area in the Mountains, Coast, and Ranges Sections. This alliance has been mapped at various densities in most subsections of this zone at elevations usually below 5600 feet (1708 m). Tanoak (*Lithocarpus densiflorus var. densiflorus*) is the most common hardwood associate on mesic sites towards the west. Along western edges of the Mountains Section, a scattered overstory of Douglas-fir often exists over a continuous Tanoak understory with occasional Madrones (*Arbutus menziesii*). Canyon Live Oak (*Quercus chrysolepis*) becomes an important hardwood associate on steeper or drier slopes and those underlain by shallow soils. Black Oak (*Q. kelloggii*) may often associate with this conifer but usually is not abundant. In addition, any of the following tree species may be sparsely present in Douglas-fir stands: Redwood (*Sequoia sempervirens*), Ponderosa Pine (*Pinus ponderosa*), Incense Cedar (*Calocedrus decurrens*), White Fir (Abies concolor), Oregon White Oak (*Q. garryana*) and Bigleaf Maple (*Acer macrophyllum*), among others. The shrub understory may also be quite diverse and includes a wide range of shrubs and forbs.



- •Á Interior Mixed Hardwood: No single species is dominant in the Interior Mixed Hardwood Alliance, a mixture that has been mapped most extensively in the Central Franciscan and Ultrabasic Complex Subsections of the Mountains Section and the Mount St. Helena Flows and Valleys, Coast Franciscan and Marin Hills and Valleys Subsections of the Coast Section. It also occurs with less abundance in thirteen other subsections in all three sections. The mixture in this area includes diverse proportions of Oregon White (Quercus garryana), Canyon Live (Q. chrysolepis) and Blue (Q. douglasii) Oaks, with lesser amounts of California Bay (Umbellifera californica) and Coast Live Oak (Q. agrifolia). Conifer associates are mainly Douglas-fir (Pseudotsuga menziesii) and in western areas, Redwood (Sequoia sempervirens). This alliance has been mapped at elevations generally below about 4000 feet (1220 m). Annual grasses and forbs typically occur in these open sites.
- •Á Oregon White Oak: Oregon White Oak (Quercus garryana) is widely distributed from British Columbia to this zone, with outlying scattered populations further east and south to the Sierra Nevada Mountains and southern California. The tree form (Q. g. var. garryana) becomes a local canopy dominant in woodlands of the three sections of this zone across thirty-one subsections, becoming especially prominent in seven of them. Mapped elevations of this type are usually below about 5800 feet (1768 m). Often developing on poor, exposed or droughty soils in inland valleys, foothills or rocky ridges, the Oregon White Oak type also is found in poorly drained areas having occasional standing water or next to stream terraces. On better sites, it is usually out-competed by species such as Douglas-fir (Pseudotsuga menziesii) and California Black Oak (Q. kelloggii), often becoming a minor element in mixed hardwood types. Other associated species include other conifers such as Ponderosa Pine (Pinus ponderosa), Gray Pine (P. sabiniana) and various Oaks (Quercus spp.). Open sites often have a grass understory.
- •Á Douglas-fir-Pine: Douglas-fir (*Psuedotsuga menziesii*) shares canopy dominance with Ponderosa Pine (Pinus ponderosa) at elevations below about 6000 feet (1830 m) in drier sites of the Mountains and Ranges Sections, and more rarely in the eastern sectors of the Coast Section. The type has been mapped within twenty-nine subsections, having greater spatial frequency towards the east and south sections of the zone. Knobcone Pine (*P. attenuata*) may occasionally be present as a minor component of the conifer overstory. Pacific Madrone (*Arbutus menziesii*), California Black Oak (*Quercus kelloggii*), Canyon Live Oak (*Q. chrysolepis*) and Bigleaf Maple (*Acer macrophyllum*) are often present in the understory, while Tanoak (*Lithocarpus densiflorus var. densiflorus*) is usually absent. This type may grade into the Mixed Conifer Pine type in the Coast Ranges as site conditions become more mesic or disturbance factors less significant in the landscape. It is less prominent in the moister, outermost Klamath Mountains area where it intermixes with Pacific Douglas-fir forests.



•Á Interior Live Oak: The Interior Live Oak (*Quercus wislizenii*) Alliance occurs mainly in southern areas of the Coast and Mountains Sections as mapped in eight subsections. It is often found to the north and east of the Coast Live Oak (*Q. agrifolia*) Alliance distribution and topographically above Blue Oak (*Q. douglasii*) dominated stands towards the east. This type often indicates xeric or rocky sites when associated with other hardwood types and has been mapped at elevations up to about 4400 feet (1342 m). The shrubby form (*Q. wislizenii var. frutescens*) may also dominate a site, especially in areas of frequent fires. Occasional trees and shrubs such as Douglas-fir (*Pseudotsuga menziesii*), Gray Pine (*Pinus sabiniana*), Blue Oak (*Q. douglasii*), Oregon White Oak (*Q. garryana*) and Chamise (*Adenostoma fasciculatum*) may be associated with this pure hardwood alliance. Interior Live Oak is known to hybidize with California Black Oak (*Q. kelloggii*) and Coast Live Oak (*Q. agrifolia*), occasionally making field identification more difficult.

MCV2 Alliances:

Biological communities observed were classified using data collected in the field and the Manual of California Vegetation Online Edition (MCV2 Alliances, CNPS 2020b). Five (5) MCV2 Alliance communities (Appendix D: Map 6: MCV2 Classification Map) were observed on site:

- •Á Quercus garryana Forest & Woodland Alliance: Oregon white oak forest and woodland
- •Á Pseudotsuga menziesii Forest & Woodland Alliance: Douglas-fir forest and woodland
- •Á Quercus kelloggii Forest and Woodland Alliance: California black oak forest and woodland
- •Á *Umbellularia californica* Forest & Woodland Alliance: California bay forest and woodland
- •Á Pinus attenuata Forest & Woodland Alliance: Knobcone pine forest and woodland

Detailed descriptions of these communities are as follows:

Quercus garryana Forest & Woodland Alliance: Oregon white oak forest and woodland:

- •Á Characteristics Species: *Quercus garryana* var. *garryana* is dominant or co-dominant in the tree canopy with *Juniperous occidentalis, Pinus jeffreyi, Pinus ponderosa, Pinus sabiniana, Pseudotsuga menziesii, Quercus chrysolepis, Quercus kelloggii* and *Umbellularia californica*.
- •Á Vegetation Layers: Trees < 30 m; canopy is open to continuous. Shrub layer is usually open. Herbaceous layer is open to intermittent and mostly grassy.
- •Á Membership Rules:
 - oA Quercus garryana > 30% relative cover in the tree canopy; > 25% absolute cover, and lacking an appreciable conifer cover.
 - oA Quercus garryana > 30% relative cover in the tree canopy often with other oaks such as Q. kelloggii.
- •Á Habitats: Raised stream benches, terraces, slopes. and ridges of all aspects.
- •Á State Rarity Rank: S3
- •Á Global Rarity Rank: G4



Pseudotsuga menziesii Forest & Woodland Alliance; Douglas-fir forest and woodland:

- •Á Characteristic Species: *Pseudotsuga menziesii* is dominant or co-dominant with hardwoods in the tree canopy with *Abies concolor, Acer macrophyllum, Alnus rhombifolia, Arbutus menziesii, Calocedrus decurrens, Chamaecyparis lawsoniana, Cornus nuttali, Pinus contorta, Pinus lambertianana, Quercus agrifolia., Quercus chrysolepis, Quercus garryana, Quercus kelloggii, and Sequoia sempervirens.*
- •Á Vegetation Layer: Trees <75m; canopy intermittent to continuous, and it may be two-tiered. Shrubs are infrequent or common. Herbaceous layer is sparse or abundant.
- A Membership rules:
 - oA Pseudotsuga menziesii > 50% relative cover in the tree canopy and reproducing successfully, though hardwoods may dominate or co-dominate in the subcanopy and regeneration layer; Abies concolor, Chamaecyparis lawsoniana, Pinus contorta, P. ponderosa, and Sequoia sempervirens <20% relative cover; and Notholithocarpus densiflorus <10% relative cover in the tree canopy.
- •Á Habitats: All topographic positions and aspects. Substrates various, including serpentine.
- Á State Rarity Rank: S4Á Global Rarity Rank: G5
- A Global Rainty Rails. G5

Quercus kelloggii Forest and Woodland Alliance: California black oak forest and woodland:

- •Á Characteristics Species: *Quercus kelloggii* is dominant or co-dominant in the tree camopy with *Abies concolor, Arbutus menziesii, Calocedrus decurrens, Pinus attenuata, Pinus ponderosa, Pseudotsuga menziesii, Quercus agrofolia, Quercus chrysolepis, Quercus garryana, Quercus lobata* and *Umbellularia californica*.
- •Á Vegetation Layers: Trees < 40 m; canopy is open to continuous. Shrub layer is open to intermittent. Herbaceous layer is sparse or grassy.
- •Á Membership Rules:
 - oÁ *Quercus kelloggii* > 50% relative cover in overstory, and conifers are not conspicuous; or *Q. kelloggii* > 30% relative cover in the overstory and *Pinus ponderosa* may co-dominate.
 - ○Á *Quercus kelloggii* > 50% relative cover in the tree canopy; emergent conifers <10% relative cover.
 - oÁ Quercus kelloggii and Pinus ponderosa 30-60% relative cover in the overstory.
- •Á Habitats: All topographic positions and aspects. Soils are moderately to excessively drained.
- Á State Rarity Rank: S4Á Global Rarity Rank: G4

Pinus attenuata Forest & Woodland Alliance: Knobcone pine forest and woodland:

- •Á Characteristic Species: *Pinus attenuata* is dominant or co-dominant in the tree canopy with *Arbutus menziesii*, *Juniperus occidentalis*, *Notholithocarpus densiflorus*, *Pinus contorta*, *Pinus coulteri*, *Pinus monticola*, *Pinus radiata*, *Pinus sabiniana*, *Pseudotsuga menziesii*, *Quercus chrysolepis* and *Quercus wislizeni*.
- •Á Vegetation Layers: Trees < 25 m; canopy is open to continuous and one or two tiered. Shrub layer is sparse to continuous. Herbaceous layer is sparse.



- •Á Membership Rules
 - oÁ *Pinus attenuata* > 50% relative cover in the tree layer; if co-dominant, > 30% relative cover.
- •Á Habitats: Slopes of all aspects, ridges. Soils are derived notably from ultramafic, granitic, sedimentary, and volcanic substrates.
- •Á State Rarity S4
- •Á Global Rarity G4

Umbellularia californica Forest & Woodland Alliance: California bay forest and woodland:

- •A Characteristic Species: *Umbellularia californica* is dominant or co-dominant in the tree or tall shrub canopy with *Acer macrophyllum, Aesculus californica, Alnus rhombifolia, Alnus rubra, Arbutus menziesii, Corylus cornuta, Juglans californica, Notholithocarpus densiflorus, Pinus sabiniana, Platanus racemosa, Pseudotsuga menziesii, Quercus agrifolia, Quercus chrysolepis, Quercus wislizeni* and Sequoia sempervirens.
- •Á Vegetation Layers: Trees < 25 (30) m; canopy is intermittent to continuous. Shrub layer open to intermittent. Herbaceous layer is sparse to abundant.
- •Á Membership Rules
 - oÁ Conifers < 30% relative cover in canopy, *Umbellularia californica* > 30% relative cover in the tree canopy.
 - oA *Umbellularia californica* usually > 50% relative cover in the overstory as a tree or tall shrub; when with *Alnus rhombifolia* or *Quercus wislizeni*, > 30% relative cover.
- •A Habitats: Alluvial benches, streamsides, valley bottoms, coastal bluffs, inland ridges, steep north-facing slopes, rocky outcrops. Soils are shallow to deep, sandy to clay loams. The USFWS Wetland Inventory (1996 national list) recognizes *Umbellularia californica* as a FAC plant.

Á State Rarity: S3Á Global Rarity: G4

5.1.1 Non-sensitive Biological Communities

Non-sensitive biological communities are those communities that are not afforded special protection under CEQA, and other Federal, State, and local laws, regulations, and ordinances. The Study Area is comprised of three (3) non-sensitive biological communities, as classified under the MCV2 system:

Pseudotsuga menziesii Forest & Woodland Alliance: Douglas-fir forest and woodland CDFW State Rarity Rank: S4 (Apparently Secure)

Quercus kelloggii Forest and Woodland Alliance: California black oak forest and woodland CDFW State Rarity Rank: S4 (Apparently Secure)

Pinus attenuata Forest & Woodland Alliance: Knobcone pine forest and woodland CDFW State Rarity Rank: S4 (Apparently Secure)

Descriptions of these communities are listed above in section 5.1, Biological Communities, and include the Manual of California Vegetation (MCV2) alliance descriptions.



5.1.2 Sensitive Biological Communities

Sensitive biological communities include those that are listed in CNDDB as well as observed MCV2 alliances or associations with state ranks of S1-S3 and are listed on CDFW's *List of California Sensitive Natural Communities* (CDFW 2020). The Study Area is comprised of two (2) non-sensitive biological communities, as classified under the MCV2 system:

Quercus garryana Forest & Woodland Alliance: Oregon white oak forest and woodland CDFW State Rarity Rank: S3 (Vulnerable).

Umbellularia californica Forest & Woodland Alliance: California bay forest and woodland CDFW State Rarity Rank: S3 (Vulnerable).

Recommendations to avoid or mitigate potential impacts to sensitive natural communities are discussed in Section 6.0, Assessment Summary and Recommendations.

Sensitive Aquatic Resources:

The Study Area contains two (2) Class II watercourses and four (4) Class III watercourses that were observed and mapped on-site.

Recommendations to avoid or mitigate potential impacts to aquatic resources are discussed in Section 6.0, Assessment Summary and Recommendations.

5.2 Special-status Species

5.2.1 Special-status Plant Species

Upon review of the resource databases (Appendix E: listed in Section 3.2, forty-six (46) special-status plant species have been documented within the vicinity of the Study Area. Please refer to Appendix A for a table of all special-status plant species which occur within a nine-quad search surrounding the Study Area and additional discussion of the potential for each species to occur within the Study Area. Special-status species documented within five miles of the Study Area are depicted in the CNDDB Vicinity map (Appendix D: Map 3, CNDDB Vicinity Map).

Of the forty-six (46) special-status plant species within the vicinity of the Study Area, seventeen (17) special-status plant species have a moderate to high potential to occur within the Study Area. The remaining twenty-nine (29) special-status plant species documented within the vicinity of the Study Area are unlikely to occur or do not have the potential to occur due to one or more of the following reasons:

- •Á Hydrologic conditions (e.g., vernal pools, riverine) necessary to support the special-status plant species are not present within the Study Area.
- •Á Edaphic conditions (soils, e.g., rocky outcrops, serpentinite) necessary to support the special-status plant species are not present within the Study Area.
- •À Topographic conditions (e.g., montane) necessary to support the special-status plant species are not present within the Study Area.
- •Á Unique pH conditions (e.g., alkali scalds, acidic bogs) necessary to support the special-status plant species are not present within the Study Area.



- Associated vegetation communities (e.g., interior chaparral, tidal marsh) necessary to support the special-status plant species are not present within the Study Area.
- The Study Area is geographically isolated (e.g., outside of required elevations, coastal environment) from the documented range of the special-status plant species.
- Ecological conditions (last recorded observations, human-made or natural disturbance) have encroached on species to a point to cause presumed extinction.

The habitat requirements for the seventeen (17) special-status plant species with moderate or high potential to occur within the Study Area is described in the table below:

SPECIES	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
Plants			
mountain lady's-slipper Cypripedium montanum Rank 4.2	Lower montane coniferous forest, broadleaved upland forest, cismontane woodland, north coast coniferous forest, often on dry, undisturbed slopes. Elevation ranges from 607 to 7300 feet (185 to 2225 meters). A perennial herb (rhizomatous), the blooming period is from Mar-Aug.	Moderate Potential. Cismontane woodland and broadleaved upland forest are present within Study Area and may provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment or during the botanical survey conducted on March 30. There are no recommendations for this species.
Koch's cord moss Entosthodon kochii Rank 1B.3	Cismontane woodland, often growing on soil over riverbanks. Elevation ranges from 607 to 1198 feet (185 to 365 meters). A moss, there is no distinct blooming period.	Moderate Potential. Cismontane woodland is present within the Study Area and may provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment and there are no recommendations for this species.
stinkbells Fritillaria agrestis Rank 4.2	Cismontane woodland, chaparral, valley and foothill grassland, pinyon and juniper woodland, sometimes on serpentine soil, mostly found in non-native grassland or in grassy openings in clay soil. This species has a serpentine affinity of 2.7 (strong indicator). Elevation ranges from 33 to 5102 feet (10 to 1555 meters). A perennial bulbiferous herb, the blooming period is from Mar-Jun.	Moderate Potential. The Study Area contains chapparal habitat that may be suitable for this species.	Not Observed. This species was not observed during the biological assessment or during the botanical survey conducted on March 30. There are no recommendations for this species.
Roderick's fritillary Fritillaria roderickii Rank 1B.1	Coastal bluff scrub, coastal prairie, valley and foothill grassland, often on grassy slopes, mesas. Elevation ranges from 66 to 2002 feet (20 to 610 meters). A perennial herb (bulb), the blooming period is from Mar-May.	Moderate Potential. Grassland habitat is present within the Study Area and may provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment or during the botanical survey conducted on March 30. There are no recommendations for this species.



CDECIEC	HABITAT DECLUDEMENTO	POTENTIAL TO OCCUR	RECOMMENDATIONS
SPECIES	HABITAT REQUIREMENTS	IN THE STUDY AREA	
Mendocino tarplant Hemizonia congesta ssp. calyculata Rank 4.3	Cismontane woodland, valley and foothill grassland, open woods and forests, sometimes on serpentine. <i>H. congesta ssp. calyculata</i> has a serpentine affinity of 1.5 (weak indicator). Elevation ranges from 738 to 4593 feet (225 to 1400 meters). An annual herb, the blooming period is from Jul-Nov.	Moderate Potential. Cismontane woodland and grassland habitat are present within the Study Area. This species is sometimes found in serpentine soil, but not always; therefore, the Study Area may provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment; however, the biological assessment was not conducted during the blooming period. It is recommended to survey for this species during the appropriate blooming period (Jul-Nov).
congested- headed hayfield tarplant Hemizonia congesta ssp. congesta Rank 1B.2	Valley and foothill grassland, often in fallow fields, sometimes along roadsides. <i>H. congesta</i> ssp. <i>congesta</i> has a serpentine affinity (1.3, weak indicator/indifferent). Elevation ranges from 17 to 1706 feet (5 to 520 meters). An annual herb, the blooming period is from Apr-Nov.	Moderate Potential. Grassland habitat is present within the Study Area. This species is sometimes found in serpentine soil, but not always; therefore, the Study Area may provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment; however, the biological assessment was not conducted during the blooming period. It is recommended to survey for this species during the appropriate blooming period (Apr-Nov).
Contra Costa goldfields Lasthenia conjugens FE Rank 1B.1	Valley and foothill grassland, vernal pools, alkaline playas, cismontane woodlands, often found in swales and low depressions in open grassy areas. Elevation ranges from 4 to 1477 feet (1 to 450 meters). An annual herb, the blooming period is from Mar-Jun.	Moderate Potential. The Study Area contains the required habitat (cismontane woodland and grassland habitat) and may provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment; however, the biological assessment or during the botanical survey conducted on March 30. There are no recommendations for this species.
bristly leptosiphon Leptosiphon acicularis Rank 4.2	Chaparral, cismontane woodland, coastal prairie, valley and foothill grassland. Elevation ranges from 181 to 4922 feet (55 to 1500 meters). An annual herb, the blooming period is from Apr-Jul.	Moderate Potential. The Study Area contains the required habitat (cismontane woodland) and may provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment; however, the biological assessment was not conducted during the blooming period for this species. It is recommended to survey for this species during the appropriate blooming period (Apr-Jul).



SPECIES	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
broad-lobed leptosiphon Leptosiphon latisectus Rank 4.3	Broadleaved upland forest, cismontane woodland. <i>L. latisectus</i> has a serpentine affinity of 2.0 (weak indicator). Elevation ranges from 558 to 4922 feet (170 to 1500 meters). An annual herb, the blooming period is from Apr-Jun.	Moderate Potential. Cismontane woodland and broadleaved upland forest are present within the Study Area. This species is sometimes found in serpentine soil, but not always; therefore, the Study Area may provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment; however, the biological assessment was not conducted during the blooming period. It is recommended to survey for this species during the appropriate blooming period (Apr-Jun).
redwood lily Lilium rubescens Rank 4.2	Chaparral, lower montane coniferous forest, broadleaved upland forest, upper montane coniferous forest, north coast coniferous forest, sometimes on serpentine. <i>L. rubescens</i> has a serpentine affinity of 2 (weak indicator). Elevation ranges from 99 to 6267 feet (30 to 1910 meters). A perennial herb (bulb), the blooming period is from Apr-Aug.	Moderate Potential. Broadleaved upland forest is present within the Study Area. This species is sometimes found in serpentine soil, but not always; therefore, the Study Area may provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment; however, the biological assessment was not conducted during the blooming period. It is recommended to survey for this species during the appropriate blooming period (Apr-Aug).
green monardella Monardella viridis Rank 4.3	Broadleaved upland forest, chaparral, cismontane woodland. Elevation ranges from 328 to 3314 feet (100 to 1010 meters). A perennial herb, the blooming period is from Jun-Sep.	Moderate Potential. Cismontane woodland and broadleaved upland forest are present within the Study Area. This species is sometimes found in serpentine soil, but not always; therefore, the Study Area may provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment; however, the biological assessment was not conducted during the blooming period. It is recommended to survey for this species during the appropriate blooming period (Apr-Jun).
white- flowered rein orchid Piperia candida Rank 1B.2	North Coast coniferous forest, lower montane coniferous forest, broadleaved upland forest, sometimes on serpentine. Often found in forest duff, mossy banks, ultramafic (serpentine) rock outcrops and muskeg. <i>P. candida</i> has a serpentine affinity of 1.2 (weak indicator/indifferent). Elevation ranges from 66 to 5299 feet (20 to 1615 meters). A perennial herb, the blooming period is from May-Sep.	Moderate Potential. Cismontane woodland and broadleaved upland forest are present within the Study Area. This species is sometimes found in serpentine soil, but not always; therefore, the Study Area may provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment; however, the biological assessment was not conducted during the blooming period. It is recommended to survey for this species during the appropriate blooming period (May-Sep).



SPECIES	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
Mayacamas popcornflower Plagiobothrys lithocaryus Rank 1A	Chaparral, cismontane woodland, valley and foothill grassland, moist sites. Elevation ranges from 985 to 1477 feet (300 to 450 meters). An annual herb, the blooming period is from Apr-May.	Moderate Potential. Cismontane woodland and grassland habitat are present within the Study Area and may provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment; however, the biological assessment was not conducted during the blooming period. It is recommended to survey for this species during the appropriate blooming period (Apr-May).
beaked tracyina Tracyina rostrata Rank 1B.2 USFS: S	Cismontane woodland, valley and foothill grassland, chaparral, often observed in open grassy meadows commonly within oak woodland and grassland habitats. Elevation ranges from 492 to 2609 feet (150 to 795 meters). An annual herb, the blooming period is from May-Jun.	Moderate Potential. Cismontane woodland and grassland habitat are present within the Study Area and may provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment; however, the biological assessment was not conducted during the blooming period. It is recommended to survey for this species during the appropriate blooming period (May-Jun).
showy Indian clover Trifolium amoenum FE Rank 1B.1	Valley and foothill grassland, coastal bluff scrub, sometimes on serpentine soils (ultramafic), open sunny sites, swales, along roadsides and eroding cliff faces. <i>T. amoenum</i> has an ultramafic affinity (1.3, weak indicator, indifferent). Elevation ranges from 17 to 1017 feet (5 to 310 meters). An annual herb, the blooming period is from Apr-Jun.	Moderate Potential. Grassland habitat is present within the Study Area and this species is sometimes found in serpentine soil, but not always. The Study Area may provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment; however, the biological assessment was not conducted during the blooming period. It is recommended to survey for this species during the appropriate blooming period (Apr-Jun).
Methuselah's beard lichen Usnea longissima Rank 4.2	North coast coniferous forest, broadleaved upland forest. Often grows in the "redwood zone" on tree branches of a variety of trees, including bigleaf maple (<i>Acer macrophyllum</i>), various oaks (<i>Quercus spp.</i>), ash (<i>Fraxinus spp.</i>), Douglas-fir (<i>Pseudotsuga menziesii</i>) and California bay (<i>Umbellularia californica</i>). Elevation ranges from 148 to 4807 feet (45 to 1465 meters).	Moderate Potential. Broadleaved upland forest is present within the Study Area; therefore, the Study Area may provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment. Trees are not proposed for removal; therefore, there are no recommendations for this species.



SPECIES	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
oval-leaved	Chaparral, cismontane woodland,	Moderate Potential.	Not Observed. This
viburnum	lower montane coniferous forest.	Cismontane woodland is	species was not observed
	Elevation ranges from 706 to	present within the Study	during the biological
Viburnum	4593 feet (215 to 1400 meters). A	Area and may provide	assessment; however, the
ellipticum	shrub, the blooming period is	suitable habitat for this	biological assessment
	from May-Jun.	species.	was not conducted
Rank 2B.3			during the blooming
			period. It is
			recommended to survey
			for this species during
			the appropriate blooming
			period (May-Jun).

No special-status plant species were observed within the Study Area during the Biological Assessment. A complete list of all plant and wildlife species observed within the Study Area was compiled during the site visit on February 5, 2021. A botanical survey was conducted on March 30, 2021. Further botanical surveys will be conducted in May and July of 2021 and results will be amended to this report.

5.2.2 Special-status Animal Species

A total of forty-four (44) special-status wildlife species have been documented within the vicinity of the Study Area. Please refer to Appendix A for a table of all special-status wildlife species which occur within the vicinity of the Study Area and discussion of the potential for each species to occur within the Study Area. Special-status species documented within five miles of the Study Area are depicted in the CNDDB Vicinity map (Appendix D: Map 3, CNDDB Vicinity Map).

Of the forty-four (44) special-status wildlife species within the vicinity of the Study Area, thirteen (13) special-status wildlife species recorded have a moderate to high potential to occur within the Study Area. The remaining thirty-one (31) special-status wildlife species documented within the vicinity of the Study Area are unlikely to occur or do not have the potential to occur due to one or more of the following reasons:

- •Á Aquatic Habitats (e.g., streams, rivers, vernal pools) necessary to support special-status wildlife species are not present within the Study Area.
- •Á Vegetation Habitats (e.g., forested area, riparian, grassland) that provide nesting and/or foraging resources necessary to support special-status wildlife species are not present within the Study Area.
- •A Physical Structures and Vegetation (e.g., caves, old-growth trees) that provide nesting, cover, and/or foraging habitat necessary to support special-status wildlife species are not present within the Study Area.
- •Á Host Plants (e.g., *Cirsium sp.*) that provide larval and nectar resources necessary to support special-status wildlife species are not present within the Study Area.
- •Á Historic and Contemporary Disturbance (e.g., cattle grazing, agriculture) deter the presence of the special-status wildlife species from occupying the Study Area.



•Á The Study Area is outside the documented nesting range of special-status wildlife species.

The thirteen (13) special-status wildlife species with moderate or high potential to occur within the Study Area are described in the table below.

SPECIES	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS		
Amphibians					
red-bellied newt Taricha rivularis CDFW: SSC IUCN: LC	T. rivularis inhabits coastal forests, typically in redwood (Sequoia sempervirens) forest habitat although also found in other forest types (hardwood etc.). Adults are terrestrial and fossorial. Transformed juveniles leave aquatic environments and go into hiding in underground shelters, often until ready to reproduce. Breeding occurs in streams often with relatively strong flows.	High Potential. Habitat within the Study Area is ranked High (1.00) in suitability according to the CWHR Predicted Habitat Suitability Map. Aquatic habitat is not present within the Study Area; however, the Study Area may be used for migration and refugia. There is a known occurrence of this species approximately 0.7 miles northwest from the Study Area along Gibson Creek according to CNDDB.	Not Observed. This species was not observed during the biological assessment. It is recommended to survey for this species prior to ground disturbance.		
Avifauna					
northern goshawk Accipiter gentilis BLM: S CDF: S CDFW: SSC IUCN: LC USFS: S	A. gentilis are often found in dense, mature and old growth stands of conifer and deciduous habitats. Younger seral stands that include larger residual or defective trees are also used. Nest often on cooler (northerly or easterly) moderate slopes in dense vegetation or within riparian zones, but close to openings. Nest sites are often located next to water, which may provide a break in canopy for easy access to the nest stand or may influence microclimate or prey distribution.	High Potential. Habitat within the Study Area is ranked Medium (0.44) and High (1.00) in suitability according to the CWHR Predicted Habitat Suitability Map. There are no stands of dense, mature and old growth conifer or deciduous forest in the immediate vicinity of the Study Area; however, areas withing the Study Area does contain conifer and deciduous forest stands.	Not Observed. This species or nests were not observed during the biological assessment. No trees are proposed for removal; however, it is recommended to survey for this species within 500 feet of ground disturbance activities.		



SPECIES	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
golden eagle Aquila chrysaetos BLM: S CDF: S CDFW: FP, WL IUCN: LC USFWS: BCC	A. chrysaetos is an uncommon permanent resident in northern California. This species ranges from sea level up to 11,500 feet inhabiting rolling foothills, mountain areas, sage-juniper flats and desert. This species frequently nests in secluded cliffs of all heights with overhanging ledges and in large trees in open areas.	High Potential. Habitat within the Study Area is ranked Moderate (0.44) and High (1.00) in suitability according to the CWHR Predicted Habitat Suitability Map. There are no stands of dense, mature and old growth conifer or deciduous forest in the immediate vicinity of the Study Area; however, areas withing the Study Area does contain conifer and deciduous forest stands.	Not Observed. This species or nests were not observed during the biological assessment. No trees are proposed for removal; however, it is recommended to survey for this species within 500 feet of ground disturbance activities.
osprey Pandion haliaetus CDF: S CDFW: WL IUCN: LC	P. haliaetus are strictly associated with large, fishbearing waters, primarily in ponderosa pine and mixed conifer stands. Foraging habitat consists of open, clear waters, rivers, lakes, reservoirs, estuaries, lagoons, swamps, marshes, and bays. Diet consists almost exclusively live fish. Large trees, snags, and blownout treetops are used for cover and nesting. Nests are located on or near the tops of trees, snags, cliffs, or human-made structures.	High Potential. Habitat within the Study Area is ranked Moderate (0.44) and High (0.77) in suitability according to the CWHR Predicted Habitat Suitability Map. There are no stands of dense, mature and old growth conifer or deciduous forest in the immediate vicinity of the Study Area; however, areas withing the Study Area does contain conifer and deciduous forest stands.	Not Observed. This species or nests were not observed during the biological assessment. No trees are proposed for removal; however, it is recommended to survey for this species within 500 feet of ground disturbance activities.
yellow warbler Setophaga petechia CDFW: SSC USFWS: BCC	S. petechia often inhabits riparian deciduous habitats in summer: willows, alders, cottonwoods, and other small trees and shrubs typical of low, open canopy riparian woodland. This species will also breed in montane shrubbery in open conifer forest. S. petechia migrates through woodland, forest and shrub habitats. Nests above ground in a deciduous dappling or shrub.	Moderate Potential. Habitat within the Study Area is ranked Low (0.22) to Moderate (0.44) in suitability according to the CWHR Predicted Habitat Suitability Map. The Study Area contains does contain montane shrubs in open conifer and deciduous forest that may be potential habitat for this species.	Not Observed. This species was not observed during the biological assessment. It is recommended that nesting bird surveys be conducted prior to vegetation removal.



SPECIES	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR	RECOMMENDATIONS
northern spotted owl Strix occidentalis caurina FT, ST CDF: S IUCN: NT NABCI: YWL	S. occidentalis caurina are yearround residents in dense, structurally complex forests, primarily with old-growth conifers. Nests on snags and within tree cavities, and often is associated with existing structures (old raptor nests, squirrel nests and A. pomo nests).	IN THE STUDY AREA Moderate Potential. The Study Area is approximately 4.3 miles southeast from the closest NSO Activity Center and 4.5 miles northeast from the nearest critical habitat as identified by the USFWS. The Study Area is located within suitable habitat according to the CWHR Predicted Habitat Suitability Map. The Study Area does not contain large conifers for nesting but may provide suitable foraging habitat for this species.	Not Observed. This species or evidence of this species was not observed during the biological assessment. Trees are not proposed for removal; therefore, there are no recommendations for this species.
Insects			
obscure bumble bee Bombus caliginosus CDFW: SSC IUCN: VU	B. caliginosus are often found in coastal areas from Santa Barbara county north to Washington state. Food plant genera includes Baccharis, Cirisum, Lupinus, Lotus, Grindelia, and Phacelia.	Moderate Potential. The Study Area contains suitable habitat and food plant genera for this species.	Not Observed. This species was not observed during the biological assessment. Brush and grassland are proposed for removal; however, there is adequate potential habitat surrounding the Study Area. There are no recommendations for this species.
western bumble bee Bombus occidentalis State: CE USFS: S Xerces: IM	B. occidentalis are formerly common throughout much of western North America; however, populations from southern British Columbia to central California have nearly disappeared. They occur in a variety of habitat types and are generalist pollinators. B. occidentalis are commonly encountered along stream banks, meadows, disturbed areas, or on flowers by roadsides.	Moderate Potential. The Study Area contains suitable habitat and food plant genera for this species.	Not Observed. This species was not observed during the biological assessment. Brush and grassland are proposed for removal; however, there is adequate potential habitat surrounding the Study Area. There are no recommendations for this species.



SPECIES	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
Mammals			
Sonoma tree vole Arborimus pomo CDFW: SSC IUCN: NT	A. pomo lives in humid coastal forests consisting of Douglas-fir, grand fir, western hemlock, and/or Sitka spruce. This species requires Douglas-fir and grand fir needles as a food source and nesting materials. Nests are frequently found in trees along the bole, in branch crotches, or in the top of snags. Nests are most often found along roads, skid trails, or forest edges; however, they could exist further in the forest with dense canopies making nest identification difficult. This species is distributed along the North Coast from Sonoma County north to the Oregon border, being practically restricted to the fog belt.	Moderate Potential. Habitat within the Study Area is not suitable in some areas, ranks Low (0.33) withing Montane Hardwood- Conifer habitat and High (1) within Conifer Forest habitat according to the CWHR Predicted Habitat Suitability Map. The Study Area does contain Douglas-fir trees and map provide suitable habitat for this species.	Not Observed. This species or evidence of this species was not observed during the biological assessment. Trees are not proposed for removal, but if trees were to be removed, it is recommended to survey those trees for this species.
North American porcupine Erethizon dorsatum IUCN: LC	E. dorsatum are commonly found in coniferous and mixed forested areas, and can also inhabit shrublands, tundra and deserts, albeit less frequently as this species tends to spend much of its time in trees. This species makes its dens in hollow trees, decaying logs and caves in rocky areas. Recognized as primarily solitary and nocturnal, E. dorsatum may be seen foraging during daytime.	Moderate Potential. Habitat within the Study Area is ranked Low (0.33) within the Montane Hardwood habitat to Moderate (0.55) within the Hardwood-Montane Conifer habitat in suitability according to the CWHR Predicted Habitat Suitability Map. The Study Area may contain suitable habitat for this species.	Not Observed. This species or evidence of this species was not observed during the biological assessment. It is recommended to survey for this survey prior to ground disturbance.
western red bat Lasiurus blossevillii CDFW: SSC IUCN: LC WBWG: H	L. blossevillii roosts primarily in trees, often 2-40ft above the ground from sea level through mixed conifer forests. Typical habitats include cismontane woodland, lower montane coniferous forest, riparian forests and woodlands. This species prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	Moderate Potential. Habitat within the Study Area is ranked Moderate (0.66) within the Hardwood- Montane Conifer habitat in suitability according to the CWHR Predicted Habitat Suitability Map. The Study Area may contain suitable habitat for this species.	Not Observed. This species or evidence of this species was not observed during the biological assessment. There are no further recommendations for this species.



SPECIES	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
hoary bat	L. cinereus are yearlong	Moderate Potential.	Not Observed. This
	residents of Mendocino County.	Habitat within the Study	species was not
Lasiurus	This bat is one of the few bats	Area is ranked Moderate	observed during the
cinereus	knows to both migrate south for	(0.55) within the Hardwood-	biological assessment.
	winter and to hibernate locally.	Montane Conifer habitat in	It is recommended to
CDFW: SSC	Hoary bat daytime roosts are	suitability according to the	survey for this survey
	typically dense foliage of	CWHR Predicted Habitat	prior to ground
IUCN: LC	medium to large sized trees.	Suitability Map. The Study	disturbance.
	This bat occupies a variety of	Area may contain suitable	
WBWG: M	habitats including dense forest,	habitat for this species.	
	forest edges, coniferous forests,		
	deserts, and broadleaf forests.		
fisher [West	P. pennanti are primarily	Moderate Potential. Habitat	Not Observed. This
Coast DPS]	solitary, except during breeding	within the Study Area is	species was not
	season (February – April) and	ranked from no suitable	observed during the
Pekania	they inhabit forest stands with	habitat (0) to High (1) in	biological assessment.
pennanti	late-successional characteristics	suitability according to the	Trees present within the
	including intermediate-to-large	CWHR Predicted Habitat	Study Area do not
	tree stages of coniferous forest	Suitability Map and may	exhibit late
ST	and deciduous-riparian areas	provide suitable habitat for	successional
	with high percent canopy	this species.	characteristics and none
CDFW: SSC	closure. Den site and prey		are not proposed for
	availability are often associated		removal for this
USFS: S	with these characteristics. P.		project. There are no
	pennanti use cavities, snags,		further
	logs and rocky areas for cover		recommendations for
	and denning and require large		this species.
	areas of mature, dense forest.		

No special status animal species were observed within the Study Area during the biological site assessment. A complete list of all plant and wildlife species observed within the Study Area was compiled during the site visit on February 5, 2021 or March 30, 2021.

Section 6.0: Assessment Summary and Recommendations

6.1 Biological Communities

The Study Area is comprised predominantly of three (3) non-sensitive biological communities, two (2) sensitive biological communities, as well as several watercourses as determined during on-site biological assessments on February 5, 2021 and March 30, 2021 (Appendix D: Map 5, MCV2 Alliance Classifications).

Non-Sensitive Communities:

Under the MCV2 alliance classification system, site visits on February 5, 2021 and March 30, 2021 determined that non-sensitive communities within the Study Area are best classified as *Pseudotsuga menziesii* Forest & Woodland Alliance: Douglas-fir forest and woodland, *Quercus kelloggii* Forest and Woodland Alliance: California black oak forest and woodland and *Pinus attenuata* Forest & Woodland Alliance: Knobcone pine forest and woodland. Detailed descriptions of these biological communities are discussed in section 5.1. There are no recommendations for non-sensitive communities.



Sensitive Communities:

Sensitive biological communities include those that are listed in CNDDB as well as observed MCV2 alliances or associations with state rarity ranks of S1-S3 and are listed on CDFW's *List of California Sensitive Natural Communities* (CDFW 2020). Two (2) sensitive communities, as classified under the MCV2 alliance classification system, exist within the Study Area and were observed on-site. More detailed descriptions of these sensitive communities are discussed in Section 5.1.2.

Quercus garryana Forest & Woodland Alliance (Oregon white oak forest and woodland): This community has a Global Rarity Rank of G4 (Apparently Secure) and a State Rarity Rank of S3 (Vulnerable). It is recommended that any proposed work within or in the vicinity of this community avoid the removal of Quercus garryana. This community may also provide habitat for nesting birds protected by the Migratory Bird Treaty Act (MBTA) and it is recommended that nesting bird surveys be conducted for any activities that require vegetation removal between March 1st and August 31st of any year. Other management considerations for the preservation of this community include thinning or removal of conifer species within the stand in accordance with local laws, regulations, and ordinances. Such thinning could limit the possibility of vegetation type conversion to closed-canopy woodlands and conifer forest and inhibit the development of fuel ladders that increase the potential for stand-replacing fires. Any removal of Quercus garryana cannot be done without consultation with CDFW, and all work within this community shall adhere to CDFW recommendations. It is the understanding of Jacobszoon & Associates, Inc. that no tree removal is proposed.

<u>Umbellularia californica</u> Forest & Woodland Alliance: California bay forest and woodland: This community has a Global Rarity Rank of G4 (Apparently Secure) and a State Rarity Rank of S3 (Vulnerable). It is recommended that any proposed work within or in the vicinity of this community avoid the removal of *Umbellularia californica*. This community may also provide habitat for nesting birds protected by the Migratory Bird Treaty Act (MBTA) and it is recommended that nesting bird surveys be conducted for any activities that require vegetation removal between March 1st and August 31st of any year. Other management considerations for the preservation of this community include thinning or removal of conifer species within the stand in accordance with local laws, regulations, and ordinances. Such thinning could limit the possibility of vegetation type conversion to closed-canopy woodlands and conifer forest and inhibit the development of fuel ladders that increase the potential for stand-replacing fires. Any removal of *Umbellularia californica* cannot be done without consultation with CDFW, and all work within this community shall adhere to CDFW recommendations. It is the understanding of Jacobszoon & Associates, Inc. that no tree removal is proposed.

Aquatic resources, communities, and habitats (e.g. watercourses, ponds, wetlands, vernal pools, etc.) are considered sensitive biological communities and are afforded special protections under CEQA and other Federal, State, and local laws, regulations, and ordinances. Aquatic habitats present within the Study Area could provide suitable aquatic or riparian habitats for sensitive flora and fauna.



Two (2) Class II watercourses and several Class III watercourses within the Study Area. Recommendations for aquatic resources are listed below:

- •Á It is recommended that all earthwork adjacent to any watercourse or other body of water adhere to standard methods of erosion and sediment control and, if possible, to complete all work while the channel is dry to reduce sediment load downstream.
- •Á It is recommended that a qualified biologist be on site for any dewatering event to address the potential for the presence of sensitive aquatic species such as foothill yellow-legged frog (*Rana boylii*).
- •Á It is recommended that any work within a watercourse or water body with the potential to impact aquatic resources be conducted in compliance with s CDFW's Lake and Streambed Alteration Agreement.
- •Á It is recommended that future expansions or development associated with this project be located outside of the NFHL 100-year flood zone as well as SWRCB setbacks.

A Class II watercourse located approximately 225 feet north of the Study Area is mapped on the USFWS National Wetland Inventory (Appendix D: Map 7, NWI mapped wetlands) as a riverine habitat classified as R4SBC. R4SBC is a riverine intermittent system with a streambed and is seasonally flooded. Riverine systems are considered watercourses for the purposes of this assessment. The proposed project will not impact this watercourse.

6.2 Special-status Species

Seventeen (17) special-status plant species and thirteen (13) special-status wildlife species have a moderate or high potential to occur within the Study Area based on habitat present. No special status plant or wildlife species were observed within the Study Area during the biological site assessment.

6.2.1 Special-status Plant Species

Seventeen (17) special status plant species have a moderate or high potential to occur within the Study Area: mountain lady's-slipper (*Cypripedium montanum*), Koch's cord moss (*Entosthodon kochii*), stinkbells (*Fritillaria agrestis*), Roderick's fritillary (*Fritillaria roderickii*), Mendocino tarplant (*Hemizonia congesta ssp. calyculata*), congested-headed hayfield tarplant (*Hemizonia congesta ssp. congesta*), Contra Costa goldfields (*Lasthenia conjugens*), bristly leptosiphon (*Leptosiphon acicularis*), broad-lobed leptosiphon (*Leptosiphon latisectus*), redwood lily (*Lilium rubescens*), green monardella (*Monardella viridis*), white-flowered rein orchid (*Piperia candida*), Mayacamas popcornflower (*Plagiobothrys lithocaryus*), beaked tracyina (*Tracyina rostrata*) showy Indian clover (*Trifolium amoenum*), Methuselah's beard lichen (*Usnea longissimi*) and oval-leaved viburnum (*Viburnum ellipticum*).

Recommendations for special-status plant species are listed below:

•Á It is recommended that a seasonally appropriate botanical survey be conducted for the above listed species prior to any groundbreaking activities.

¹ The term "groundbreaking" encompasses vegetation removal, grading, or excavation.



No special-status plant species were observed during the biological site assessment. The biological site visit does not constitute a full season protocol-level botanical survey and is not intended to determine the actual presence or absence of a species. A botanical survey shall be conducted between March and July of 2021 and the results will be amended into this report.

6.2.2 Special-status Wildlife Species

Thirteen (13) special-status wildlife species have a moderate or high potential to occur within the Study Area. These species include red-bellied newt (*Taricha rivularis*), northern goshawk (*Accipiter gentilis*), golden eagle (*Aquila chrysaetos*), osprey (*Pandion haliaetus*), yellow warbler (*Setophaga petechia*), northern spotted owl (*Strix occidentalis caurina*), obscure bumble bee (*Bombus caliginosus*), western bumble bee (*Bombus occidentalis*), pallid bat (*Antrozous pallidus*), Sonoma tree vole (*Arborimus pomo*), North American porcupine (*Erethizon dorsatum*), western red bat (*Lasiurus blossevillii*), hoary bat (*Lasiurus cinereus*), and fisher [West Coast DPS] (*Pekania pennanti*).

Amphibians

One (1) special-status amphibian has a moderate or high potential to occur within the Study Area; red-bellied newt (*Taricha rivularis*).

Recommendations for this species are listed below:

• A It is recommended that a qualified biologist survey the area prior to any groundbreaking activities to determine the presence of special-status amphibian species.

No special-status amphibian species were observed within the Study Area during the biological site assessment.

Avifauna

Five (5) special-status avian species have moderate or high potential to occur within the Study Area. These species include northern goshawk (*Accipiter gentilis*), golden eagle (*Aquila chrysaetos*), osprey (*Pandion haliaetus*), yellow warbler (*Setophaga petechia*), and northern spotted owl (*Strix occidentalis caurina*). Additionally, most non-game bird species in California are protected under the Migratory Bird Treaty Act (MBTA) which prohibits the deliberate destruction of active nests belonging to protected species. Groundbreaking activities, specifically vegetation removal, within the Study Area during avian breeding periods have the potential to significantly impact nesting migratory bird species.

Recommendations for special-status avian species and migratory bird species are listed below:

- •Á It is recommended that all active bird nests not be removed, relocated, or otherwise disturbed for any purpose until all fledglings have left the nest.
- •Á It is recommended that nesting bird surveys be conducted prior to the commencement of any groundbreaking activities which occur between March 1st and August 31st of any year.

No avian special-status species were observed within the Study Area during the biological assessment.



Fish

The Study Area does not contain any special-status fish species or fish bearing watercourses or waterbodies. The nearest fish-bearing watercourse is a Class II watercourse, located approximately 225 feet north of the Study Area. It is recommended that all earthwork within or adjacent to any watercourse or waterbody adhere to standard methods of erosion and sediment control. Future development within the Study Area does not have the potential to impact special-status fish species. No special-status fish were observed during the biological site assessment.

Insects

Two (2) special-status insect species have moderate or high potential to occur within the Study Area. These species include the obscure bumble bee (*Bombus caliginosus*) and western bumble bee (*Bombus occidentalis*).

Recommendations for special-status insect species are listed below:

• If a special-status insect nests are observed, it is recommended that active nests not be removed, relocated, or otherwise disturbed until the nest becomes inactive.

No special-status insects or nests were observed within the Study Area during the biological site assessment.

Mammals

Five (5) special-status mammal species have moderate or high potential to occur within the Study Area. These species include the Sonoma tree vole (*Arborimus pomo*), North American porcupine (*Erethizon dorsatum*), western red bat (*Lasiurus blossevillii*), hoary bat (*Lasiurus cinereus*), and fisher [West Coast DPS] (*Pekania pennanti*).

Recommendations for special-status mammal species are listed below:

- If evidence of bat roosts are observed (i.e. bat guano, ammonia odor, grease stained cavities) around trees or structures, it is recommended that pre-construction bat surveys be conducted by a qualified biologist for activities that may affect bat roosting habitat.
- If evidence of special-status mammal borrows or denning activity is observed, it is recommended that pre-construction surveys be conducted by a qualified biologist for activities that may affect den sites.

No special-status mammals were observed during the biological site assessment. No evidence of special-status mammal species was observed during the biological site visit.

6.3 Wildlife Corridors

No change to foraging or wintering habitat for migratory birds is expected as a result of the proposed project. Additionally, no significant impacts to migratory corridors for amphibian, aquatic, avian, mammalian, or reptilian species is expected as a result of the project.

6.4 Critical Habitat

The Study Area does not contain and is not adjacent to critical habitat for any Federal or Statelisted species (Appendix E: USFWS IPAC Official Species List).



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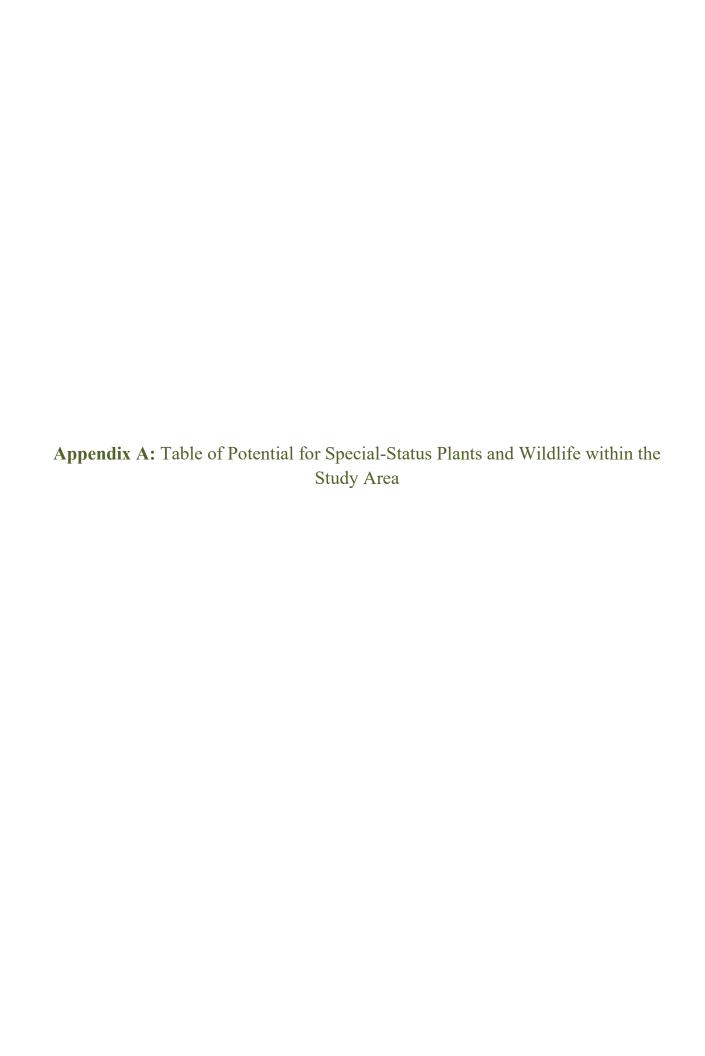
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SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
Amphibians				
California giant salamander	CDFW: SSC	California giant salamanders are year-round residents of California and were split into two species – California giant salamander	No Potential. The Study Area is outside the known distribution range for this	Not Present. There are no recommendations for this species.
Dicamptodon ensatus	IUCN: NT	(Dicamptodon ensatus) occurring south of the Mendocino County line and the coastal giant salamander (Dicamptodon tenebrosus) occurring in the north. D. ensatus are found in meadows and seeps, north coast coniferous forest and riparian forested habitats. D. ensatus occur in wet coastal forests in or near clear, cold permanent and semi-permanent streams and seepages. Adults leave terrestrial habitats to reproduce and both the reproduction and larval stages are aquatic with breeding occurring mostly in the spring.	species according to the CWHR Predicted Habitat Suitability Map.	•
northern red-legged frog Rana aurora	CDFW: SSC IUCN: LC USFS: S	R. aurora are often observed within humid forests, woodlands, wetlands, grasslands and stream-sides in northwestern California, usually near dense riparian cover. This species is generally found near permanent water but can be found far from water in damp woods and meadows during the non-breeding season. Typical habitat types include Klamath/North coast flowing waters, riparian forest and woodland.	No Potential. The Study Area is outside the known distribution range for this species according to the CWHR Predicted Habitat Suitability Map.	Not Present. There are no recommendations for this species.



SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
foothill yellow-legged frog Rana boylii	BLM: S CDFW: SSC IUCN: NT USFS: S	R. boylii occupy a diverse range of ephemeral and permanent streams, rivers, and adjacent moist terrestrial habitats. Occupied streams are often partly shaded, low gradient, and dominated by coarse, unconsolidated rocky substrates. Adults breed and tadpoles develop in slow water velocity habitats. Dispersing juvenile and adult frogs will seek refugia in Class II streams pre-and-post breeding, opposite of salmonids.	Unlikely. Habitat within the Study Area is ranked Low (0.33) in suitability according to the CWHR Predicted Habitat Suitability Map. The Study Area itself does not contain suitable habitat for this species, although potential suitable breeding habitat may be in Doolin Creek a Class I watercourse located approximately 2,230 feet south of the Study Area. A Class II watercourse located approximately 225 feet north of the Study Area may be suitable winter refugia habitat as well.	Not Observed. This species was not observed during the biological assessment. There are no recommendations for this species.
red-bellied newt Taricha rivularis	CDFW: SSC IUCN: LC	T. rivularis inhabits coastal forests, typically in redwood (Sequoia sempervirens) forest habitat although also found in other forest types (hardwood etc.). Adults are terrestrial and fossorial. Transformed juveniles leave aquatic environments and go into hiding in underground shelters, often until ready to reproduce. Breeding occurs in streams often with relatively strong flows.	High Potential. Habitat within the Study Area is ranked High (1.00) in suitability according to the CWHR Predicted Habitat Suitability Map. Aquatic habitat is not present within the Study Area; however, the Study Area may be used for migration and refugia. There is a known occurrence of this species approximately 0.7 miles northwest from the Study Area along Gibson Creek according to CNDDB.	Not Observed. This species was not observed during the biological assessment. It is recommended to survey for this species prior to ground disturbance.



SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
Avifauna				
northern goshawk	BLM: S	A. gentilis are often found in dense, mature and old growth stands of conifer and	High Potential. Habitat within the Study Area is	Not Observed. This species or nests were not
Accipiter gentilis	CDF: S	deciduous habitats. Younger seral stands that include larger residual or defective trees are	ranked Medium (0.44) and High (1.00) in suitability	observed during the biological assessment. No
	CDFW: SSC	also used. Nest often on cooler (northerly or easterly) moderate slopes in dense vegetation	according to the CWHR Predicted Habitat Suitability	trees are proposed for removal; however, it is
	IUCN: LC	or within riparian zones, but close to openings. Nest sites are often located next to water,	Map. There are no stands of dense, mature and old	recommended to survey for this species within 500
	USFS: S	which may provide a break in canopy for easy access to the nest stand or may influence microclimate or prey distribution.	growth conifer or deciduous forest in the immediate vicinity of the Study Area; however, areas withing the Study Area does contain conifer and deciduous forest stands.	feet of ground disturbance activities.
tricolored blackbird	SCE	A. tricolor breed and forage in a variety of	No Potential. The Study	Not Present. There are no
Agelaius tricolor	BLM: S	habitats including salt marshes, moist grasslands, freshwater marshes, bay-shore	Area is outside the known distribution range for this	recommendations for this species.
Ageitius iricolor		habitats, riparian forests and oak savannahs. A.	species according to the	эрестез.
	CDFW: SSC	tricolor use dense riparian vegetation such as Himalayan blackberry (Rubus armeniacus) for nesting and forage in cultivated fields,	CWHR Predicted Habitat Suitability Map. Riparian forests with dense	
	IUCN: EN	wetlands, and feedlots associated with dairy farms.	vegetation are not present within the Study Area.	
	NABCI: RWL			
	USFWS: BCC			



SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
grasshopper sparrow Ammodramus	CDFW: SSC	A. savannarum are an uncommon and local, summer resident in foothills and lowlands west of the Cascade- Sierra Nevada crest from	No Potential. The Study Area does not have suitable habitat present according to	Not Present. There are no recommendations for this species.
savannarum	IUCN: LC	Mendocino and Trinity Counties south to San Diego County. <i>A. savannarum</i> nests on the ground in grasslands, prairie, cultivated fields, and grassy clearings in forests; particularly in areas with a variety of grasses and tall forbs and scattered shrubs for singing perches. Nests are typically found at the base of a small clump of overhanging grass or other vegetation.	the CWHR Predicted Habitat Suitability Map. Small patches of suitable habitat are present within the surrounding area.	•
golden eagle	BLM: S	A. chrysaetos is an uncommon permanent resident in northern California. This species	High Potential. Habitat within the Study Area is	Not Observed. This species or nests were not
Aquila chrysaetos	CDF: S	ranges from sea level up to 11,500 feet inhabiting rolling foothills, mountain areas,	ranked Moderate (0.44) and High (1.00) in suitability	observed during the biological assessment. No
	CDFW: FP,	sage-juniper flats and desert. This species	according to the CWHR	trees are proposed for
	WL	frequently nests in secluded cliffs of all heights with overhanging ledges and in large trees in	Predicted Habitat Suitability Map. There are no stands of	removal; however, it is recommended to survey
	IUCN: LC	open areas.	dense, mature and old growth conifer or deciduous	for this species within 500 feet of ground disturbance
	USFWS:		forest in the immediate	activities.
	BCC		vicinity of the Study Area;	
			however, areas withing the	
			Study Area does contain conifer and deciduous forest stands.	
great blue heron	CDF: S	A. herodias are commonly found in shallow estuaries and fresh and saline emergent	Unlikely. Habitat within the Study Area is ranked not	Not Present. There are no recommendations for this
Ardea herodias	IUCN: LC	wetlands. Foraging areas include river and creek banks, ponds, lakes, and watercourses in mountainous areas. This species often nests in colonies within a rookery tree.	suitable (0) to Low (0.22) to Moderate (0.44) in suitability according to the CWHR Predicted Habitat Suitability Map. The Study Area itself contains no nesting or foraging habitat	species.
			suited for this species.	



SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
oak titmouse Baeolophus inornatus	IUCN: LC NABCI: YWL USFWS: BCC	B. inornatus are cavity-nesters found within oak or oak-pine woodlands, and many will use scrub oaks or other brush with woodlands nearby. This species occurs within montane hardwood-conifer, montane hardwood, oak woodlands (Quercus agrifolia, Q. douglasii, Q. lobata). B. inornatus typically eats seeds, various plant materials, insects and other invertebrates, foraging from the ground floor up to approximately 30 ft off the ground.	No Potential. The Study Area is outside the known distribution range for this species according to the CWHR Predicted Habitat Suitability Map.	Not Present. There are no recommendations for this species.
western snowy plover Charadrius alexandrinus nivosus	FT CDFW: SSC NABCI: RWL USFWS: BCC	C. alexandrinus nivosus inhabit barren to sparsely vegetated sandy beaches, salt pond levees, Great Basin standing waters, wetlands and shores of large alkali lakes. Nesting habitat consists of sandy, gravelly or friable soils usually within a natural or scraped depression on dry ground. Diet consists of terrestrial and aquatic invertebrates.	No Potential. The Study Area is outside the known distribution range for this species according to the CWHR Predicted Habitat Suitability Map.	Not Present. There are no recommendations for this species.
northern harrier Circus hudsonius	CDFW: SSC IUCN: LC	C. hudsonius are year-long residents of Mendocino and Lake County. They frequent meadows, alpine meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands and are seldom found in wooded areas. Usually hunts by flying low over fields, scanning the ground for small prey including mammals (voles, rats, other rodents), bird species ranging from songbirds to small ducks and large insects. Breeding occurs on meadows and marshland, both salt and freshwater. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	No Potential. The Study Area does not have suitable habitat present according to the CWHR Predicted Habitat Suitability Map. Small patches of Low (0.22) suitable habitat are present within the surrounding area.	Not Observed. This species or nests were not observed during the biological assessment. No trees are proposed for removal; however, it is recommended to survey for this species within 500 feet of ground disturbance activities.



SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
yellow-billed cuckoo Coccyzus americanus	FT SE BLM: S NABCI: RWL USFS: S USFWS: BCC	C. americanus use wooded habitat with dense cover and water nearby, including woodlands with low, scrubby vegetation, overgrown orchards, abandoned farmland, and dense thickets along streams and marshes. This species makes their nests along horizontal branches or the fork of a tree or large shrub, often between 3 to 90 feet (1 to 28 meters). Trees are often oak (Quercus sp.), beech, hawthorn (Crataegus sp.) and ash, often with lower story of blackberry, nettles or wild grapes.	No Potential. The Study Area is outside the known distribution range for this species according to the CWHR Predicted Habitat Suitability Map.	Not Present. There are no recommendations for this species.
white-tailed kite Elanus leucurus	BLM: S CDFW: FP IUCN: LC	Often found in coastal, valley lowlands and agricultural areas, <i>E. leucurus</i> inhabit herbaceous and open stages of most habitats especially in cismontane California. This species' primary diet consists of small mammals (voles and other rodents), found in undisturbed, open grasslands, meadows, farmlands, and emergent wetlands (Waian et. al. 1970). Nests are often found in isolated, dense-topped trees.	No Potential. The Study Area does not have suitable habitat present according to the CWHR Predicted Habitat Suitability Map. Small patches of Low (0.32) suitable habitat are present within the surrounding area.	Not Observed. This species or nests were not observed during the biological assessment. No trees are proposed for removal; however, it is recommended to survey for this species within 500 feet of ground disturbance activities.
yellow-breasted chat Icteria virens	CDFW: SSC IUCN: LC	I. virens inhabit riparian thickets of willow and other brushy tangles near watercourses. Required habitat for this species is riparian forest, woodland, or scrub. Nests in low, dense riparian habitat often consisting of willow, blackberry, and wild grape within 10ft. of the ground.	No Potential. The Study Area is outside the known distribution range for this species according to the CWHR Predicted Habitat Suitability Map.	Not Present. There are no recommendations for this species.



SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
Lewis' woodpecker Melanerpes lewis	CDFW: SSC IUCN: LC NABCI: YWL	M. lewis often inhabit oak savannahs, broken deciduous, and coniferous habitats. Nests are made at the forest edge (especially ponderosa pine) or in groves or scattered trees and requires snags for nest cavities. M. lewis' primary diet consists of insects, nuts, and fruits.	No Potential. The Study Area is outside the known distribution range for this species according to the CWHR Predicted Habitat Suitability Map.	Not Present. There are no recommendations for this species.
osprey Pandion haliaetus	USFWS: BCC CDF: S CDFW: WL IUCN: LC	P. haliaetus are strictly associated with large, fish-bearing waters, primarily in ponderosa pine and mixed conifer stands. Foraging habitat consists of open, clear waters, rivers, lakes, reservoirs, estuaries, lagoons, swamps, marshes, and bays. Diet consists almost exclusively live fish. Large trees, snags, and blown-out treetops are used for cover and nesting. Nests are located on or near the tops of trees, snags, cliffs, or human-made structures.	High Potential. Habitat within the Study Area is ranked Moderate (0.44) and High (0.77) in suitability according to the CWHR Predicted Habitat Suitability Map. There are no stands of dense, mature and old growth conifer or deciduous forest in the immediate vicinity of the Study Area;	Not Observed. This species or nests were not observed during the biological assessment. No trees are proposed for removal; however, it is recommended to survey for this species within 500 feet of ground disturbance activities.
yellow warbler Setophaga petechia	CDFW: SSC USFWS: BCC	S. petechia often inhabits riparian deciduous habitats in summer: willows, alders, cottonwoods, and other small trees and shrubs typical of low, open canopy riparian woodland. This species will also breed in montane shrubbery in open conifer forest. S. petechia migrates through woodland, forest and shrub habitats. Nests above ground in a deciduous dappling or shrub.	however, areas withing the Study Area does contain conifer and deciduous forest stands. Moderate Potential. Habitat within the Study Area is ranked Low (0.22) to Moderate (0.44) in suitability according to the CWHR Predicted Habitat Suitability Map. The Study Area contains does contain montane shrubs in open conifer and deciduous forest that may be potential habitat for this species.	Not Observed. This species was not observed during the biological assessment. It is recommended that nesting bird surveys be conducted prior to vegetation removal.



SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
northern spotted owl Strix occidentalis caurina	FT, ST CDF: S IUCN: NT NABCI: YWL	S. occidentalis caurina are year-round residents in dense, structurally complex forests, primarily with old-growth conifers. Nests on snags and within tree cavities, and often is associated with existing structures (old raptor nests, squirrel nests and A. pomo nests).	Moderate Potential. The Study Area is approximately 4.3 miles southeast from the closest NSO Activity Center and 4.5 miles northeast from the nearest critical habitat as identified by the USFWS. The Study Area is located within suitable habitat according to the CWHR Predicted Habitat Suitability Map. The Study Area does not contain large conifers for nesting but may provide suitable foraging habitat for	Not Observed. This species or evidence of this species was not observed during the biological assessment. Trees are not proposed for removal; therefore, there are no recommendations for this species.
T1 1			this species.	
Fish				
Pacific lamprey Entosphenus tridentatus	AFS: VU BLM: S CDFW:	E. tridentatus are anadromous, but also with a number of permanent freshwater resident populations. This species is parasitic as adults, feeding on blood and body fluids of its prey. To breed, E. tridentatus migrate into fresh	No Potential. The Study Area does not contain fish bearing water bodies suitable for this species and does provide suitable habitat	Not Present. There are no recommendations for this species.
	SSC USFS: S	water and dig nests. Adults die post-breeding. Larvae/juveniles live 5-6 years in freshwater before returning to the ocean.	for this species.	
Clear Lake tule perch Hysterocarpus traskii lagunae	CDFW: SSC	H. traskii lagunae are endemic to three (3) highly altered lakes (Clear Lake, Lower Blue Lake, and Upper Blue Lake); however, it is expected that they are only commonly found in Upper Blue Lake as the other lakes have already lost a majority of their native fishes. A key habitat requirement of H. traskii lagunae is cover, especially for pregnant females and small juveniles. This species is typically found in small shoals in deep (3+ m) tule beds, among rocks (especially along steep rocky shores), or among the branches of fallen trees.	No Potential. The Study Area is outside of the Clear Lake watershed and the current known distribution for this species according to the FSSC Range Map.	Not Present. There are no recommendations for this species.



SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
Russian River tule perch Hysterocarpus traskii pomo	AFS: VU CDFW: SSC	H. traskii pomo inhabits clear, flowing streams and rivers, and occupy deep pools that have complex cover in the form of aquatic and overhanging vegetation. This species is endemic to the Russian River and the lower parts of its tributaries. They feed on invertebrates, plants, and zooplankton. Mating occurs in July-Sept.	No Potential. The Study Area does not contain fish bearing water bodies suitable for this species and does provide suitable habitat for this species.	Not Present. There are no recommendations for this species.
Navarro roach Lavinia symmetricus navarroensis	CDFW: SSC	L. symmetricus navarroensis are generally found in small, warm intermittent streams, and dense populations are frequently found in isolated pools. They are most abundant in midelevation streams in the Sierra foothills and in the lower reaches of some coastal streams. Roach are tolerant of relatively high temperatures (30-35 C) and low oxygen levels (1-2 ppm). However, they are habitat generalists, also being found in cold, well-aerated clear "trout" streams, in humanmodified habitats and in the main channels of rivers, such as the Russian and Tuolumne. This form appears to be abundant in both the Russian and Navarro rivers.	No Potential. The Study Area is outside of the Navarro River watershed and current known distribution for this species according to the FSSC Range Map.	Not Present. There are no recommendations for this species.
Clear Lake – Russian River roach Lavinia symmetricus ssp. 4	CDFW: SSC	L. symmetricus are generally found in small, warm intermittent streams, and dense populations are frequently found in isolated pools. Roach are tolerant of relatively high temperatures (30-35 C) and low oxygen levels (1-2 ppm). However, they are habitat generalists, also being found in cold, well-aerated clear "trout" streams, in human-modified habitats and in the main channels of rivers. Clear Lake roach are restricted to the tributaries of Clear Lake, where they are widely distributed in the basin's seven major drainages.	No Potential. The Study Area does not contain fish bearing water bodies suitable for this species and does provide suitable habitat for this species.	Not Present. There are no recommendations for this species.



SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
coho salmon – southern Oregon / northern California ESU Oncorhynchus kisutch pop. 2	ST AFS: TH	O. kisutch are anadromous, migrating and spawning in streams that flow directly into the ocean or tributaries of larger rivers. Migration peaks between mid-May and mid-June. Coho lay egg masses (redds), often located between a pool and a riffle. This evolutionarily significant unit, or ESU, includes naturally spawned coho salmon originating from coastal streams and rivers between Cape Blanco, Oregon, and Punta Gorda, California.	No Potential. The Study Area does not contain fish bearing water bodies suitable for this species and does provide suitable habitat for this species. According to the CWHR Predicted Habitat Suitability Map, Doolin Creek (approximately 2,230 feet south) and an unnamed watercourse (approximately 225 north) do not have Intrinsic Potential to contain this species.	Not Present. There are no recommendations for this species.
coho salmon – central California coast ESU Oncorhynchus kisutch pop. 4	FE SE AFS EN	Coho are anadromous, migrating and spawning in streams that flow directly into the ocean or tributaries of larger rivers. Migration peaks mid-May till mid-June. The fish will spend two to three years at sea before migrating back to their natal stream to spawn. Coho lay egg masses (redds), often located between a pool and a riffle. This evolutionarily significant unit, or ESU, includes naturally spawned coho salmon originating from rivers south of Punta Gorda, California, to and including Aptos Creek, as well as such coho salmon originating from tributaries to San Francisco Bay.	No Potential. The Study Area does not contain fish bearing water bodies suitable for this species and does provide suitable habitat for this species. According to the CWHR Predicted Habitat Suitability Map, Doolin Creek (approximately 2,230 feet south) and an unnamed watercourse (approximately 225 north) have Intrinsic Potential to contain this species.	Not Present. There are no recommendations for this species.



SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
steelhead – northern California DPS Oncorhynchus mykiss irideus pop. 16	FT AFS: TH	O. mykiss irideus are anadromous coastal rainbow trout. As adults, this species requires high flows, with depths of at least 18cm for passage. Clean well-aerated gravel beds, typically in steep, rocky reaches of upper tributaries are needed for spawning. This distinct population segment, or DPS, includes naturally spawned anadromous steelhead (Oncorhynchus mykiss) originating below natural and manmade impassable barriers in California coastal river basins from Redwood Creek to and including the Gualala River.	No Potential. The Study Area does not contain fish bearing water bodies suitable for this species and does provide suitable habitat for this species. According to the CWHR Predicted Habitat Suitability Map, Doolin Creek (approximately 2,230 feet south) and an unnamed watercourse (approximately 225 north) do not have Intrinsic Potential to contain this species.	Not Present. There are no recommendations for this species.
steelhead - central California coast DPS Oncorhynchus mykiss irideus pop. 8	FT AFS: TH	O. mykiss irideus are anadromous coastal rainbow trout. As adults, this species requires high flows, with depths of at least 18cm for passage. Clean well-aerated gravel beds, typically in steep, rocky reaches of upper tributaries are needed for spawning. The central California coast DPS are found from the Russian River south to Soquel Creek and to, but not including Pajaro River. Also San Francisco and San Pablo Bay basins. This DPS does not include summer-run steelhead.	No Potential. The Study Area does not contain fish bearing water bodies suitable for this species and does provide suitable habitat for this species. According to the CWHR Predicted Habitat Suitability Map, Doolin Creek (approximately 2,230 feet south) and an unnamed watercourse (approximately 225 north) have Intrinsic Potential to contain this species.	Not Present. There are no recommendations for this species.



SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
chinook salmon –	FT	The California coastal ESU includes all	No Potential. The Study	Not Present. There are no
California coastal ESU Oncorhynchus tshawytscha pop. 17	AFS: TH	naturally spawned populations of Chinook salmon from the Klamath River (exclusive) to the Russian River (inclusive). Adult numbers depend on pool depth and volume, amount of cover, and proximity to gravel. Water temperatures greater than 27°C are lethal.	Area does not contain fish bearing water bodies suitable for this species and does provide suitable habitat for this species. According to the CWHR Predicted Habitat Suitability Map, an unnamed watercourse (approximately 225 north)	recommendations for this species.
			and Doolin Creek (approximately 2,230 feet south) do not have Intrinsic Potential to contain this species.	
Insects				
obscure bumble bee Bombus caliginosus	IUCN: VU	B. caliginosus are often found in coastal areas from Santa Barbara county north to Washington state. Food plant genera includes Baccharis, Cirisum, Lupinus, Lotus, Grindelia, and Phacelia.	Moderate Potential. The Study Area contains suitable habitat and food plant genera for this species.	Not Observed. This species was not observed during the biological assessment. Brush and grassland are proposed for removal; however, there is adequate potential habitat surrounding the Study Area. There are no recommendations for this species.



SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
western bumble bee	SCE	B. occidentalis are formerly common throughout much of western North America;	Moderate Potential. The Study Area contains suitable	Not Observed. This species was not observed
Bombus occidentalis	USFS: S	however, populations from southern British Columbia to central California have nearly	habitat and food plant genera for this species.	during the biological assessment. Brush and
	Xerces: IM	disappeared. They occur in a variety of habitat types and are generalist pollinators. <i>B. occidentalis</i> are commonly encountered along stream banks, meadows, disturbed areas, or on flowers by roadsides.	genera for this species.	grassland are proposed for removal; however, there is adequate potential habitat surrounding the Study Area. There are no recommendations for this species.
Mollusks				
western ridged mussel Gonidea angulata		G. angulata inhabits cold creeks and streams from low-to-mid elevations that are seasonally and not continuously turbid. G. angulata requires a host species to reproduce and disperse and can be found in diverse substrates from firm mud to coarse particles.	No Potential. The Study Area does not contain fish bearing water bodies suitable for this species. The Russian River within roughly 500 feet of the	Not Present. There are no recommendations for this species.
		Documented fish hosts for this species include hardhead (<i>Mylopharodon conocephalus</i>), pit sculpin (<i>Cottus pitensis</i>), and Tule perch (<i>Hysterocarpus traski</i>).	Study Area does provide aquatic habitat for this species, but the Study Area contains no tributary watercourses.	
Mammals				
pallid bat	BLM: S	A. pallidus are found in deserts, grasslands, shrublands, woodlands, and forests. Most	Unlikely. Habitat within the Study Area ranks Low	Not Observed. This species or evidence of this
Antrozous pallidus	CDFW: SSC	commonly forages along open river channels. Roosting sites include crevices in rocky outcrops and cliffs, caves, mines, basal	(0.11) in suitability according to the CWHR Predicted Habitat Suitability	species was not observed during the biological assessment. There are no
	IUCN: LC	hollows in large conifers and various human structures such as bridges, barns, and buildings	Map. Suitable foraging is present within grassland	further recommendations for this species.
	USFS: S WBWG: H	(including occupied buildings). Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	habitat throughout the Study Area; however, roosting habitat is limited.	
		sensitive to distribute of footing sites.	Inclusion in illinous	



SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
Sonoma tree vole	CDFW: SSC	A. pomo lives in humid coastal forests consisting of Douglas-fir, grand fir, western	Moderate Potential. Habitat within the Study	Not Observed. This species or evidence of this
Arborimus pomo	IUCN: NT	hemlock, and/or Sitka spruce. This species requires Douglas-fir and grand fir needles as a food source and nesting materials. Nests are frequently found in trees along the bole, in branch crotches, or in the top of snags. Nests are most often found along roads, skid trails, or forest edges; however, they could exist further in the forest with dense canopies making nest identification difficult. This species is distributed along the North Coast from Sonoma County north to the Oregon border, being practically restricted to the fog belt.	Area is not suitable in some areas, ranks Low (0.33) withing Montane Hardwood-Conifer habitat and High (1) within Conifer Forest habitat according to the CWHR Predicted Habitat Suitability Map. The Study Area does contain Douglas-fir trees and map provide suitable habitat for this species.	species was not observed during the biological assessment. Trees are not proposed for removal, but if trees were to be removed, it is recommended to survey those trees for this species.
Townsend's big-eared bat	BLM: S	C. townsendii is associated with a wide variety of habitats from deserts to mid-elevation	Unlikely. Habitat within the Study Area ranks Low	Not Observed. This species or evidence of this
Corynorhinus townsendii	CDFW: SSC	mixed coniferous-deciduous forest, basal hollows in large conifers. Females form maternity colonies in buildings, caves and	(0.11) in suitability according to the CWHR Predicted Habitat Suitability	species was not observed during the biological assessment. There are no
	IUCN: LC	mines and males roost singly or in small groups. Foraging occurs in open forest habitats	Map. Suitable foraging is present within grassland	further recommendations for this species.
	USFS: S WBWG: H	where they glean moths from vegetation.	habitat throughout the Study Area; however, roosting habitat is limited.	
North American porcupine Erethizon dorsatum	IUCN: LC	E. dorsatum are commonly found in coniferous and mixed forested areas, and can also inhabit shrublands, tundra and deserts, albeit less frequently as this species tends to spend much of its time in trees. This species makes its dens in hollow trees, decaying logs and caves in rocky areas. Recognized as primarily solitary and nocturnal, E. dorsatum may be seen foraging during daytime.	Moderate Potential. Habitat within the Study Area is ranked Low (0.33) within the Montane Hardwood habitat to Moderate (0.55) within the Hardwood-Montane Conifer habitat in suitability according to the CWHR	Not Observed. This species or evidence of this species was not observed during the biological assessment. It is recommended to survey for this survey prior to ground disturbance.
			Predicted Habitat Suitability Map. The Study Area may contain suitable habitat for this species.	



SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
western mastiff bat Eumops perotis californicus	CDFW: SSC BLM:S WBWG:H	Uncommon resident in southeastern San Joaquin Valley and Coastal Ranges from Monterey Co. southward through southern California, from the coast eastward to the Colorado Desert. Occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban.	No Potential. The Study Area is outside the known distribution range for this species according to the CWHR Predicted Habitat Suitability Map.	Not Present. There are no recommendations for this species.
western red bat Lasiurus blossevillii	CDFW: SSC IUCN: LC WBWG: H	L. blossevillii roosts primarily in trees, often 2-40ft above the ground from sea level through mixed conifer forests. Typical habitats include cismontane woodland, lower montane coniferous forest, riparian forests and woodlands. This species prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	Moderate Potential. Habitat within the Study Area is ranked Moderate (0.66) within the Hardwood-Montane Conifer habitat in suitability according to the CWHR Predicted Habitat Suitability Map. The Study Area may contain suitable habitat for this species.	Not Observed. This species or evidence of this species was not observed during the biological assessment. There are no further recommendations for this species.
hoary bat Lasiurus cinereus	CDFW: SSC IUCN: LC WBWG: M	L. cinereus are yearlong residents of Mendocino County. This bat is one of the few bats knows to both migrate south for winter and to hibernate locally. Hoary bat daytime roosts are typically dense foliage of medium to large sized trees. This bat occupies a variety of habitats including dense forest, forest edges, coniferous forests, deserts, and broadleaf forests.	Moderate Potential. Habitat within the Study Area is ranked Moderate (0.55) within the Hardwood-Montane Conifer habitat in suitability according to the CWHR Predicted Habitat Suitability Map. The Study Area may contain suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment. It is recommended to survey for this survey prior to ground disturbance.



SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
little brown bat	CDFW:	M. lucifugus is found in most of the United	Unlikely. Habitat within the	Not Observed. This
	SSC	States and Canada, except for the south central	Study Area is ranked Low	species was not observed
Myotis lucifugus		and southeastern United States and northern	(0.11) in suitability	during the biological
	IUCN: LC	Alaska and Canada. M. lucifugus typically	according to the CWHR	assessment. There are no
		lives and feeds in forested areas near or over	Predicted Habitat Suitability	further recommendations
	WBWG: M	water. The little brown bat lives in three	Map. The Study Area does	for this species.
		different roosting sites throughout the year:	not contain structures,	-
		day roosts, night roosts, and hibernation roosts.	mines or caves that this	
		Stable, ambient temperatures greatly influence	species could use for	
		site selection. Human-made structures are	breeding sites. This species	
		often selected, however both day and night	may forage over the Study	
		roosts may be found in trees, under rocks, and	Area.	
		in piles of wood. Day roosts provide excellent		
		shelter, limited to no light, and typically have		
		southwestern exposure. Night roosts are larger		
		areas these bats can use when outside		
		temperatures necessitate communal		
		congregation for warmth. Hibernaculum		
		habitats tend to include mines and caves and		
		are typically warmer and more humid.		
Yuma myotis	CDFW:	M. yumanensis commonly inhabits open	Unlikely. Habitat within the	Not Observed. This
-	SSC	forests and woodlands from British Columbia	Study Area is ranked Low	species was not observed
Myotis yumanensis		across the western U.S. and south into Baja	(0.22) in suitability	during the biological
	BLM: S	and southern Mexico. This species will use a	according to the CWHR	assessment. There are no
		variety of lowland habitats from scrub to	Predicted Habitat Suitability	further recommendations
	IUCN: LC	coniferous forest, always near slow-moving or	Map. The Study Area does	for this species.
		standing water habitats. Foraging occurs	not contain structures,	
	WBWG:	almost exclusively over water, with	mines or caves that this	
	LM	distribution being closely tied to bodies of	species could use for	
		water. Typical roosting habitat are caves,	breeding sites. The Study	
		mines, buildings, under bridges and in cliff and	Area does not contain	
		tree crevices. Maternity colonies are often in	bodies of water for foraging	
		caves, mines, buildings and crevices.	habitat.	



SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
fisher [West Coast DPS]	ST CDFW:	P. pennanti are primarily solitary, except during breeding season (February – April) and they inhabit forest stands with late-	Moderate Potential. Habitat within the Study Area is ranked from no	Not Observed. This species was not observed during the biological
Pekania pennanti	SSC USFS: S	successional characteristics including intermediate-to-large tree stages of coniferous forest and deciduous-riparian areas with high percent canopy closure. Den site and prey availability are often associated with these characteristics. <i>P. pennanti</i> use cavities, snags, logs and rocky areas for cover and denning and require large areas of mature, dense forest.	suitable habitat (0) to High (1) in suitability according to the CWHR Predicted Habitat Suitability Map and may provide suitable habitat for this species.	assessment. Trees present within the Study Area do not exhibit late successional characteristics and none are not proposed for removal for this project. There are no further recommendations for this species.
American badger	CDFW: SSC	<i>T. taxus</i> are most abundant in drier open stages of most shrub, forest and herbaceous habitats,	No Potential. The Study Area does not have suitable	Not Present. There are no recommendations for this
Taxidea taxus	IUCN: LC	with friable soils (Zeiner et al. 1990b). <i>T. taxus</i> dig burrows in the friable soils and frequently reuse old burrows. They prey on burrowing rodents, especially ground squirrels and pocket gophers, also on birds, insects, reptiles and carrion. Their diet shifts seasonally depending on the availability of prey. <i>T. taxus</i> are nonmigratory and are found throughout most of California, except the northern North Coast area.	habitat present according to the CWHR Predicted Habitat Suitability Map. Small patches of suitable habitat are present within the surrounding area.	species.
Reptiles				
western pond turtle Emys marmorata	BLM: S CDFW: SSC IUCN: VU USFS: S	E. marmorata are associated with permanent ponds, lakes, streams, stock ponds, marshes, seasonal wetlands, artificial areas including reservoirs or irrigation ditches, or permanent pools along intermittent streams in a wide variety of habitats. This species requires basking sites in the aquatic environment or upland, grassy openings with loose soil for nesting and overwintering. Nest sites can be found from 100-500 meters from aquatic habitat.	Unlikely. Habitat within the Study Area is ranked Low (0.33) according to the CWHR Predicted Habitat Suitability Map. There are no watercourses or ponds located within the Study Area. The Study Area does not provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment. There are no further recommendations for this species.



SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
Plants				
Raiche's manzanita Arctostaphylos stanfordiana ssp. raichei	Rank 1B.1	Chaparral, lower montane coniferous forest (openings), rocky, serpentine sites, often on slopes and ridges. <i>A. stanfordiana ssp. raichei</i> has a serpentine affinity of 2.6 (strong indicator). Elevation ranges from 1591 to 3511 feet (485 to 1070 meters). A perennial evergreen shrub, the blooming period is from Feb-Apr.	No Potential. The required habitat or soil (serpentine) for this species is not present within Study Area. The Study Area does not provide suitable habitat for this species.	Not Present. There are no recommendations for this species.
Brewer's milk-vetch Astragalus breweri	Rank 4.2	Chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland. Often in grassy flats, meadows moist in spring, and open slopes in chaparral. Commonly on or near volcanic or serpentine sites. <i>A. breweri</i> has a serpentine affinity of 3.2 (strong indicator). Elevation ranges from 296 to 2395 feet (90 to 730 meters). An annual herb, the blooming period is from Apr-Jun.	Unlikely. The Study Area does contain open grassland and cismontane woodland; however, the area does not contain serpentine or volcanic soils and is unlikely to provide suitable habitat for this species.	Not Present. There are no recommendations for this species.
Sonoma sunshine Blennosperma bakeri	Rank 1B.1	Vernal pools, swales (mesic areas), valley and foothill grasslands (wetlands, riparian). Elevation ranges from 33 to 952 feet (10 to 290 meters). An annual herb, the blooming period is from Mar-May.	No Potential. The Study Area does not contain the required habitat (wet areas) for this species and is unlikely to provide suitable habitat for this species.	Not Present. There are no recommendations for this species.
watershield Brasenia schreberi	Rank 2B.3	Freshwater marshes and swamps. Aquatic, known from water bodies both natural and artificial. Elevation ranges from 3 to 7152 feet (1 to 2180 meters). A perennial rhizomatous herb (aquatic), the blooming period is from Jun-Sep.	No Potential. The Study Area does not contain the required habitat (wet areas) for this species and is unlikely to provide suitable habitat for this species.	Not Present. There are no recommendations for this species.
bristly sedge Carex comosa	Rank 2B.1	Marshes and swamps, coastal prairie, valley and foothill grasslands, lake margins, wetlands. Elevation ranges from 17 to 3314 feet (5 to 1010 meters). A perennial rhizomatous herb, the blooming period is from May-Sep.	Unlikely. The Study Area does contain grassland habitat; however, wet areas or wetlands are not present for this species and is unlikely to provide suitable habitat for this species.	Not Present. There are no recommendations for this species.



SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
Rincon Ridge ceanothus Ceanothus confusus	Rank 1B.1	Closed-cone coniferous forest, chaparral, cismontane woodland, known from volcanic or serpentine soils, dry shrubby slopes. <i>C. confusus</i> has a serpentine affinity of 1.3 (weak indicator/indifferent). Elevation ranges from 492 to 4200 feet (150 to 1280 meters). A shrub, the blooming period is from Feb-Jun.	Unlikely. The Study Area does contain cismontane woodland; however, does not have volcanic or serpentine soils and does not provide suitable habitat for this species.	Not Present. There are no recommendations for this species.
Jepson's dodder Cuscata jepsonii	Rank 1B.2	Upper montane coniferous forest, lower montane coniferous forest, broadleaved upland forest, on primary host species (<i>Ceanothus diversifolius</i> and <i>Ceanothus prostratus</i>). Elevation ranges from 3937 to 9006 feet (1200 to 2745 meters). An annual herb or vine, the blooming period is from Jul-Sep.	Unlikely. Ceanothus sp. is present within the Study Area; however, the Study Area is located outside of the elevation range of this species.	Not Present. There are no recommendations for this species.
California lady's-slipper Cypripedium californicum	Rank 4.2	Lower montane coniferous forest, bogs and fens, wetlands, often found in perennial seepages on serpentine substrate and in gravel along creek margins (ultramafic). This species has a serpentine affinity of 4.5 (broad endemic). Elevation ranges from 99 to 9023 feet (30 to 2750 meters). A perennial herb (rhizomatous), the blooming period is from Apr-Aug.	No Potential. The Study Area does not contain serpentine soil or wet areas and does not provide suitable habitat for this species.	Not Present. There are no recommendations for this species.
mountain lady's-slipper Cypripedium montanum	Rank 4.2	Lower montane coniferous forest, broadleaved upland forest, cismontane woodland, north coast coniferous forest, often on dry, undisturbed slopes. Elevation ranges from 607 to 7300 feet (185 to 2225 meters). A perennial herb (rhizomatous), the blooming period is from Mar-Aug.	Moderate Potential. Cismontane woodland and broadleaved upland forest are present within Study Area and may provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment; however, the biological assessment was not conducted during the blooming period for this species. It is recommended that a botanical survey is conducted for this species during the appropriate blooming period (Mar-Aug).



SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
Koch's cord moss Entosthodon kochii	Rank 1B.3	Cismontane woodland, often growing on soil over riverbanks. Elevation ranges from 607 to 1198 feet (185 to 365 meters). A moss, there is no distinct blooming period.	Moderate Potential. Cismontane woodland is present within the Study Area and may provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment and there are no recommendations for this species.
bare monkeyflower Erythranthe nudata	Rank 4.3	Chaparral, cismontane woodland, moist areas, often along drainages and roadsides in serpentine seeps. This species has a serpentine affinity of 5.6 (strict endemic). Elevation ranges from 820 to 2297 feet (250 to 700 meters). An annual herb, the blooming period is from May-Jun.	Unlikely. Cismontane woodland is present within the Study Area; however, serpentine soil is not present. The Study Area does not provide suitable habitat for this species.	Not Present. There are no recommendations for this species.
minute pocket moss Fissidens pauperculus	Rank 1B.2	North coast coniferous forest, redwoods, moss growing on damp soil along the coast, sometimes in dry streambeds and along stream banks. Elevation ranges from 99 to 3363 feet (30 to 1025 meters). A moss, there is no distinct blooming period.	Unlikely. Small patches of redwood trees are present within the Study Area; however, the Study Are is not located within North coast coniferous forest required for this species.	Not Present. There are no recommendations for this species.
stinkbells Fritillaria agrestis	Rank 4.2	Cismontane woodland, chaparral, valley and foothill grassland, pinyon and juniper woodland, sometimes on serpentine soil, mostly found in non-native grassland or in grassy openings in clay soil. This species has a serpentine affinity of 2.7 (strong indicator). Elevation ranges from 33 to 5102 feet (10 to 1555 meters). A perennial bulbiferous herb, the blooming period is from Mar-Jun.	Moderate Potential. Cismontane woodland is present within the Study Area. This species is sometime found in serpentine soil, but not always; therefore, the Study Area may provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment; however, the biological assessment was not conducted during the blooming period. It is recommended to survey for this species during the appropriate blooming period (Mar-Jun).



SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
Purdy's fritillary Fritillaria purdyi	Rank 4.3	Chaparral, cismontane woodland, lower montane coniferous forest, usually on serpentine soil. <i>F. fritillary</i> has a serpentine affinity of 4.5 (broad endemic). Elevation ranges from 574 to 7399 feet (175 to 2255 meters). A perennial bulbiferous herb, the blooming period is from Mar-Jun.	Unlikely. Cismontane woodland is present within the Study Area; however, this species has a strong affinity to serpentine soil. The Study Area does not contain serpentine soil and does not provide suitable habitat for this species.	Not Present. There are no recommendations for this species.
Roderick's fritillary Fritillaria roderickii	Rank 1B.1	Coastal bluff scrub, coastal prairie, valley and foothill grassland, often on grassy slopes, mesas. Elevation ranges from 66 to 2002 feet (20 to 610 meters). A perennial herb (bulb), the blooming period is from Mar-May.	Moderate Potential. Grassland habitat is present within the Study Area and may provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment; however, the biological assessment was not conducted during the blooming period. It is recommended to survey for this species during the appropriate blooming period (Mar-May).
Boggs Lake hedge- hyssop Gratiola heterosepala	Rank 1B.2	Marshes and swamps (freshwater), vernal pools, often found in clay soils, usually in vernal pools or sometimes lake margins. Elevation ranges from 13 to 7907 feet (4 to 2410 meters). An annual herb, the blooming period is from Apr-Aug.	No Potential. The Study Area does not contain the required habitat (aquatic or vernal pools) suitable for this species.	Not Present. There are no recommendations for this species.
Toren's grimmia Grimmia torenii	Rank 1B.3	Cismontane woodland, lower montane coniferous forest, chaparral, often found in openings, rocky, boulder and rock walls, carbonate, volcanic. Elevation ranges from 1067 to 3806 feet (325 to 1160 meters). A moss, no distinct blooming period.	Unlikely. Cismontane woodland is present within the Study Area; however, does not contain carbonate or volcanic soil and does not provide suitable habitat for this species.	Not Present. There are no recommendations for this species.



SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
Mendocino tarplant Hemizonia congesta ssp. calyculata	Rank 4.3	Cismontane woodland, valley and foothill grassland, open woods and forests, sometimes on serpentine. <i>H. congesta ssp. calyculata</i> has a serpentine affinity of 1.5 (weak indicator). Elevation ranges from 738 to 4593 feet (225 to 1400 meters). An annual herb, the blooming period is from Jul-Nov.	Moderate Potential. Cismontane woodland and grassland habitat are present within the Study Area. This species is sometimes found in serpentine soil, but not always; therefore, the Study Area may provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment; however, the biological assessment was not conducted during the blooming period. It is recommended to survey for this species during the appropriate blooming period (Jul-Nov).
congested-headed hayfield tarplant Hemizonia congesta ssp. congesta	Rank 1B.2	Valley and foothill grassland, often in fallow fields, sometimes along roadsides. <i>H. congesta</i> ssp. <i>congesta</i> has a serpentine affinity (1.3, weak indicator/indifferent). Elevation ranges from 17 to 1706 feet (5 to 520 meters). An annual herb, the blooming period is from Apr-Nov.	Moderate Potential. Grassland habitat is present within the Study Area. This species is sometimes found in serpentine soil, but not always; therefore, the Study Area may provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment; however, the biological assessment was not conducted during the blooming period. It is recommended to survey for this species during the appropriate blooming period (Apr-Nov).
Tracy's tarplant Hemizonia congesta ssp. tracyi	Rank 4.3	Coastal prairie, north coast coniferous forest, lower montane coniferous forest, often found in openings and sometimes on serpentine (ultramafic). <i>H. congesta</i> ssp. <i>tracyi</i> has a serpentine affinity of 1.8 (weak indicator). Elevation ranges from 394 to 3937 feet (120 to 1200 meters). An annual herb, the blooming period is from May-Oct.	No Potential. The Study Area does not contain the required habitat (coastal prairie, North coast coniferous forest or lower montane coniferous forest) suitable for this species.	Not Present. There are no recommendations for this species.
glandular western flax Hesperolinon adenophyllum	Rank 1B.2	Chaparral, cismontane woodland, valley and foothill grassland, serpentine soils, generally found in serpentine chaparral. <i>H. adenophyllum</i> has a serpentine affinity of 5.7 (strict endemic). Elevation ranges from 1395 to 4413 feet (425 to 1345 meters). An annual herb, the blooming period is from May-Aug.	Unlikely. Cismontane woodland and grassland habitat is present within the Study Area; however, does not contain serpentine soil. The Study Area does not provide suitable habitat for this species.	Not Present. There are no recommendations for this species.



SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
Bolander's horkelia Horkelia bolanderi	Rank 1B.2	Lower montane coniferous forest, chaparral, meadows and seeps, valley and foothill grassland, often found in grassy margins of vernal pools and meadows. Elevation ranges from 1493 to 2805 feet (455 to 855 meters). A perennial herb, the blooming period is from Jun-Aug.	Unlikely. Grassland habitat is present within the Study Area; however, does not contain vernal pools and does not provide suitable habitat for this species.	Not Present. There are no recommendations for this species.
small groundcone Kopsiopsis hookeri	Rank 2B.3	North coast coniferous forest, open woods, shrubby places, generally on <i>Gaultheria</i> shallon. Elevation ranges from 394 to 4708 feet (120 to 1435 meters). A perennial herb, the blooming period is from Apr-Aug.	No Potential. The Study Area does not contain the required habitat (North coast coniferous forest along the coast) suitable for this species.	Not Present. There are no recommendations for this species.
Burke's goldfields Lasthenia burkei	FE Rank 1B.1	Found in vernal pools and swales, meadows and seeps. Elevation ranges from 49 to 1969 feet (15 to 600 meters). An annual herb, the blooming period is from Apr-Jun.	No Potential. The Study Area does not contain the required habitat (vernal pools or wet areas) for this species.	Not Present. There are no recommendations for this species.
Contra Costa goldfields Lasthenia conjugens	FE Rank 1B.1	Valley and foothill grassland, vernal pools, alkaline playas, cismontane woodlands, often found in swales and low depressions in open grassy areas. Elevation ranges from 4 to 1477 feet (1 to 450 meters). An annual herb, the blooming period is from Mar-Jun.	Moderate Potential. The Study Area contains the required habitat (cismontane woodland and grassland habitat) and may provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment; however, the biological assessment was not conducted during the blooming period for this species. It is recommended that a botanical survey during the appropriate blooming period for this species is conducted (Mar-Jun).



SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
Colusa layia Layia septentrionalis	Rank 1B.2	Chaparral, cismontane woodland, valley and foothill grassland, scattered colonies in fields and grassy slopes in sandy or serpentine soil. This species has a serpentine affinity of 3.2 (strong indicator). Elevation ranges from 49 to 3609 feet (15 to 1100 meters). An annual herb, the blooming period is from Apr-May.	Unlikely. Cismontane woodland is present within the Study Area; however, the area does not contain serpentine soil The Study Area is unlikely to provide suitable habitat for this species.	Not Present. There are no recommendations for this species.
bristly leptosiphon Leptosiphon acicularis	Rank 4.2	Chaparral, cismontane woodland, coastal prairie, valley and foothill grassland. Elevation ranges from 181 to 4922 feet (55 to 1500 meters). An annual herb, the blooming period is from Apr-Jul.	Moderate Potential. The Study Area contains the required habitat (cismontane woodland) and may provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment; however, the biological assessment was not conducted during the blooming period for this species. It is recommended that a botanical survey during the appropriate blooming period for this species is conducted (Apr-Jul).
broad-lobed leptosiphon Leptosiphon latisectus	Rank 4.3	Broadleaved upland forest, cismontane woodland. <i>L. latisectus</i> has a serpentine affinity of 2.0 (weak indicator). Elevation ranges from 558 to 4922 feet (170 to 1500 meters). An annual herb, the blooming period is from Apr-Jun.	Moderate Potential. Cismontane woodland and broadleaved upland forest are present within the Study Area. This species is sometimes found in serpentine soil, but not always; therefore, the Study Area may provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment; however, the biological assessment was not conducted during the blooming period. It is recommended to survey for this species during the appropriate blooming period (Apr-Jun).



SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
woolly-headed lessingia Lessingia hololeuca	Rank 3	Coastal scrub, lower montane coniferous forest, valley and foothill grassland, broadleaved upland forests, often on clay or serpentine along fields and roadsides. <i>L. hololeuca</i> has a serpentine affinity of 2.5 (strong indicator). Elevation ranges from 49 to 1001 feet (15 to 305 meters). An annual herb, the blooming period is from Jun-Oct.	Unlikely. Grassland habitat is present within the Study Area; however, does not contain serpentine soil and does not provide suitable habitat for this species.	Not Present. There are no recommendations for this species.
redwood lily Lilium rubescens	Rank 4.2	Chaparral, lower montane coniferous forest, broadleaved upland forest, upper montane coniferous forest, north coast coniferous forest, sometimes on serpentine. <i>L. rubescens</i> has a serpentine affinity of 2 (weak indicator). Elevation ranges from 99 to 6267 feet (30 to 1910 meters). A perennial herb (bulb), the blooming period is from Apr-Aug.	Moderate Potential. Broadleaved upland forest is present within the Study Area. This species is sometimes found in serpentine soil, but not always; therefore, the Study Area may provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment; however, the biological assessment was not conducted during the blooming period. It is recommended to survey for this species during the appropriate blooming period (Apr-Aug).
Baker's meadowfoam Limnanthes bakeri	Rank 1B.1	Marshes and swamps, valley and foothill grassland, meadows and seeps, vernal pools, seasonally moist or saturated sites within grassland, also in swales, roadside ditches and margins of freshwater marshy areas. Elevation ranges from 574 to 3002 feet (175 to 915 meters). An annual herb, the blooming period is from Apr-May.	Unlikely. Grassland habitat is present within the Study Area; however, does not contain wet/marshy areas and does not provide suitable habitat for this species.	Not Present. There are no recommendations for this species.
Mendocino bush- mallow Malacothamnus mendocinensis	Rank 1A	Chaparral, open roadside banks. Elevation ranges from 1395 to 1887 feet (425 to 575 meters). A shrub, the blooming period is from May-Jun.	No Potential. The Study Area does not contain the required habitat (Chaparral) for this species.	Not Present. There are no recommendations for this species.



SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
green monardella Monardella viridis	Rank 4.3	Broadleaved upland forest, chaparral, cismontane woodland. Elevation ranges from 328 to 3314 feet (100 to 1010 meters). A perennial herb, the blooming period is from Jun-Sep.	Moderate Potential. Cismontane woodland and broadleaved upland forest are present within the Study Area. This species is sometimes found in serpentine soil, but not always; therefore, the Study Area may provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment; however, the biological assessment was not conducted during the blooming period. It is recommended to survey for this species during the appropriate blooming period (Apr-Jun).
Baker's navarretia Navarretia leucocephala ssp. bakeri	Rank 1B.1	Cismontane woodland, meadows and seeps, vernal pools and swales, valley and foothill grassland, lower montane coniferous forest, adobe or alkaline soils. Elevation ranges from 10 to 5512 feet (3 to 1680 meters). An annual herb, the blooming period is from Apr-Jul.	Unlikely. Cismontane woodland and grassland habitat are present within the Study Area; however, does not contain adobe or alkaline soils and does not provide suitable habitat for this species.	Not Present. There are no recommendations for this species.
California Gairdner's yampah Perideridia gairdneri ssp. gairdneri	Rank 4.2	Broadleaved upland forest, chaparral, coastal prairie, valley and foothill grassland, vernal pools. Often found on adobe flats or grasslands, wet meadows and vernal pools, under <i>Pinus radiata</i> along the coast, mesic sites. Elevation ranges from 0 to 2002 feet (0 to 610 meters). A perennial herb, the blooming period is from Jun-Oct.	Unlikely. Grassland habitat and broadleaved upland forest are present within the Study Area; however, is not located along the coast and does not provide suitable habitat for this species.	Not Present. There are no recommendations for this species.
white-flowered rein orchid Piperia candida	Rank 1B.2	North Coast coniferous forest, lower montane coniferous forest, broadleaved upland forest, sometimes on serpentine. Often found in forest duff, mossy banks, ultramafic (serpentine) rock outcrops and muskeg. <i>P. candida</i> has a serpentine affinity of 1.2 (weak indicator/indifferent). Elevation ranges from 66 to 5299 feet (20 to 1615 meters). A perennial herb, the blooming period is from May-Sep.	Moderate Potential. Cismontane woodland and broadleaved upland forest are present within the Study Area. This species is sometimes found in serpentine soil, but not always; therefore, the Study Area may provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment; however, the biological assessment was not conducted during the blooming period. It is recommended to survey for this species during the appropriate blooming period (May-Sep).



SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
Mayacamas popcornflower Plagiobothrys lithocaryus	Rank 1A	Chaparral, cismontane woodland, valley and foothill grassland, moist sites. Elevation ranges from 985 to 1477 feet (300 to 450 meters). An annual herb, the blooming period is from Apr-May.	Moderate Potential. Cismontane woodland and grassland habitat are present within the Study Area and may provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment; however, the biological assessment was not conducted during the blooming period. It is recommended to survey for this species during the appropriate blooming period (Apr-May).
North Coast semaphore grass Pleuropogon hooverianus	Rank 1B.1	Broadleaved upland forest, meadows and seeps, north coast coniferous forest, often found in wet, grassy, shady areas, sometimes freshwater marsh. Often associated with forest environments (wetland-riparian areas). Elevation ranges from 148 to 3806 feet (45 to 1160 meters). A perennial rhizomatous herb, the blooming period is from Apr-Jun.	Unlikely. Broadleaved upland forest and grassland habitat are present within the Study Area; however, does not contain wet areas and does not provide suitable habitat for this species.	Not Present. There are no recommendations for this species.
Lobb's aquatic buttercup Ranunculus lobbii	Rank 4.2	Cismontane woodland, valley and foothill grassland, vernal pools, north coast coniferous forest (mesic sites). Elevation ranges from 50 to 1542 feet (15 to 470 meters). An annual herb (aquatic), the blooming period is from Feb-May.	Unlikely. Cismontane woodland and grassland habitat are present within the Study Area; however, does not contain wet areas and does not provide suitable habitat for this species.	Not Present. There are no recommendations for this species.
great burnet Sanguisorba officinalis	Rank 2B.2	Bogs and fens, meadows and seeps, broadleaved upland forest, marshes and swamps, north coast coniferous forest, riparian forest, rocky serpentine seepage areas and along streams. Elevation ranges from 17 to 4593 feet (5 to 1400 meters). A perennial rhizomatous herb, the blooming period is from Jul-Oct.	Unlikely. Cismontane woodland and broadleaved upland forest are present within the Study Area; however, does not contain wet areas or streams and does not provide suitable habitat for this species.	Not Present. There are no recommendations for this species.



SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
Hoffman's bristly jewelflower Streptanthus glandulosus ssp. hoffmanii	Rank 1B.3	Chaparral, cismontane woodland, valley and foothill grassland, moist, steep rocky banks in serpentine and non-serpentine soils. Elevation ranges from 197 to 2510 feet (60 to 765 meters). An annual herb, the blooming period is from Mar-Jul.	Unlikely. Cismontane woodland is present within the Study Area and this species is sometimes found in serpentine soil, but not always. However, moist rocky banks are not present within the Study Area and does not provide suitable habitat for this species.	Not Present. There are no recommendations for this species.
beaked tracyina Tracyina rostrata	Rank 1B.2 USFS: S	Cismontane woodland, valley and foothill grassland, chaparral, often observed in open grassy meadows commonly within oak woodland and grassland habitats. Elevation ranges from 492 to 2609 feet (150 to 795 meters). An annual herb, the blooming period is from May-Jun.	Moderate Potential. Cismontane woodland and grassland habitat are present within the Study Area and may provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment; however, the biological assessment was not conducted during the blooming period. It is recommended to survey for this species during the appropriate blooming period (May-Jun).
showy Indian clover Trifolium amoenum	FE Rank 1B.1	Valley and foothill grassland, coastal bluff scrub, sometimes on serpentine soils (ultramafic), open sunny sites, swales, along roadsides and eroding cliff faces. <i>T. amoenum</i> has an ultramafic affinity (1.3, weak indicator, indifferent). Elevation ranges from 17 to 1017 feet (5 to 310 meters). An annual herb, the blooming period is from Apr-Jun.	Moderate Potential. Grassland habitat is present within the Study Area and this species is sometimes found in serpentine soil, but not always. The Study Area may provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment; however, the biological assessment was not conducted during the blooming period. It is recommended to survey for this species during the appropriate blooming period (Apr-Jun).



SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA	RECOMMENDATIONS
Santa Cruz clover Trifolium buckwestiorum	Rank 1B.1	Coastal prairie, broadleaved upland forest, cismontane woodland, often found in moist grasslands along gravelly margins. Elevation ranges from 99 to 2641 feet (30 to 805 meters). An annual herb, the blooming period is from Apr-Oct.	Unlikely. Cismontane woodland, grassland habitat and broadleaved upland forest are present within the Study Area; however, does not contain wet areas and does not provide suitable habitat for this species.	Not Present. There are no recommendations for this species.
Methuselah's beard lichen Usnea longissima	Rank 4.2	North coast coniferous forest, broadleaved upland forest. Often grows in the "redwood zone" on tree branches of a variety of trees, including bigleaf maple (<i>Acer macrophyllum</i>), various oaks (<i>Quercus spp.</i>), ash (<i>Fraxinus spp.</i>), Douglas-fir (<i>Pseudotsuga menziesii</i>) and California bay (<i>Umbellularia californica</i>). Elevation ranges from 148 to 4807 feet (45 to 1465 meters).	Moderate Potential. Broadleaved upland forest is present within the Study Area; therefore, the Study Area may provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment. Trees are not proposed for removal; therefore, there are no recommendations for this species.
oval-leaved viburnum Viburnum ellipticum	Rank 2B.3	Chaparral, cismontane woodland, lower montane coniferous forest. Elevation ranges from 706 to 4593 feet (215 to 1400 meters). A shrub, the blooming period is from May-Jun.	Moderate Potential. Cismontane woodland is present within the Study Area and may provide suitable habitat for this species.	Not Observed. This species was not observed during the biological assessment; however, the biological assessment was not conducted during the blooming period. It is recommended to survey for this species during the appropriate blooming period (May-Jun).



TERRESTRIAL OR AQUATIC COMMUNITY	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE STUDY AREA AND RECOMMENDATIONS
Northern Interior Cypress Forest – Terrestrial (Holland 1986)	Description: An open, fire-maintained scrubby "forest" similar to Knobcone Pine Forest but dominated by one of several Cupressus species. These stands may be as much as 15m tall, but usually are lower. Site Factors: On dry, rocky, sterile, often ultramafic soils, frequently associated with Serpentine Chaparral. Intergrades on less sever sites with Upper Sonoran Mixed Chaparral, Montane Chaparral, or Knobcone Pine Forest; and on more mesic site with Mixed Evergreen Forest or Montane Coniferous Forest. Characteristic Species: Cupressus abramsiana (Santa Cruz Mountains, on sandstone), C. bakeri	Unlikely. The Study Area is located predominantly within cismontane woodland and valley and foothill grassland and does contain Knobcone pine; however, serpentine soil or chaparral habitat is not present. It is unlikely for this terrestrial community to be present within the Study Area.
	(Cascade and northern Sierra Nevada, on serpentine or aerated basic sites), <i>C. macnabiana</i> (North Coast Ranges and northern Sierra Nevada, on serpentine), <i>C. sargentii</i> (North and South Coast ranges, on serpentine), <i>Pinus attenuata</i> , <i>Quercus durata</i> Distribution: Scattered through the Siskiyou Mountains, North and South Coast Ranges, Cascades and northern Sierra Nevada. Combining the four species into a single element is open to question but does reflect a common pattern of occurring on serpentine or other sterile substrate and moisture status intermediate between mesic Coastal Closed Cone Conifer Forests and xeric Southern Interior Cypress Forests.	This community was not observed during the biological assessment. There are no further recommendations for this community.
Serpentine Bunchgrass (Holland 1986)	Description: An open grassland dominated by perennial bunchgrasses. Total cover typically is low but is markedly dominated by native species (usually much more so than in Valley Needlegrass Grassland or Non-native Grasslands. Site Factors: Restricted to serpentine sites. Characteristic Species: Bromus hordeaceus, Calamagrostis ophiditis, Eschscholtzia californica, Pestuca grayii, Hemizonia luzulaefolia, Lotus subpinnatus, Melica californica, Poa scabrella, Stipa cernua, S. lepida, S. pulchra, Vulpia microstachys	No Potential. The Study Area is located within cismontane woodland, broadleaved upland forest and valley and foothill grassland; however, serpentine soil is not present. It is unlikely for this terrestrial community to be present within the Study Area.
	Distribution: Scattered widely through the Coast Ranges, less common in the Sierra Nevada and southern California mountains.	This community was not observed during the biological assessment. There are no further recommendations for this community.



Abbreviation	Organization
FC	Federal Candidate
FE	Federal Endangered
FT	Federal Threatened
FPE	Federally Proposed for listing as Endangered
FPT	Federally Proposed for listing as Threatened
FPD	Federally Proposed for delisting
SC	State Candidate
SE	State Endangered
ST	State Threatened
SCE	State Candidate for listing as Endangered
SCT	State Candidate for listing as Threatened
SCD	State Candidate for delisting
Rank 1A	CRPR Rank 1A: Presumed extirpated in California and either rare or extinct elsewhere
Rank 1B	CRPR Rank 1B: Plants rare, threatened or endangered in California and elsewhere
Rank 2B	CRPR Rank 2B: Plants rare, threatened, or endangered in California, but more common elsewhere
Rank 3	CRPR Rank 3: Plants about which CNPS needs more information (a review list)
Rank 4	CRPR Rank 4: Plants of limited distribution – a watch list

Potential to Occur:

No Potential. Habitat on and within 100 feet adjacent to the site is clearly unsuitable for the species requirements (cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).

<u>Unlikely</u>. Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and within 100 feet adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.

Moderate Potential. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or within 100 feet adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.

<u>High Potential</u>. All of the habitat components meeting the species requirements are present and/or most of the habitat on or within 100 feet adjacent to the site is highly suitable. The species has a high probability of being found on the site.

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Results and Recommendations:

Present. Species was observed on the site or has been recorded (i.e. CNDDB, other reports) on the site recently.

Not Present. Species is assumed to not be present due to a lack of key habitat components.

Not Observed. Species was not observed during surveys.

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Abbreviation	Organization
AFS_EN	American Fisheries Society - Endangered
AFS_TH	American Fisheries Society - Threatened
AFS_VU	American Fisheries Society – Vulnerable
BLM_S	Bureau of Land Management – Sensitive
BCC	USFWS Birds of Conservation Concern
CDF_S	Calif. Dept. of Forestry & Fire Protection – Sensitive
CDFW_SSC	Calif. Dept. of Fish & Wildlife – Species of Special Concern
CDFW_FP	Calif. Dept. of Fish & Wildlife – Fully Protected
CDFW_WL	Calif. Dept. of Fish & Wildlife – Watch List
IUCN_CR	IUCN – Critically Endangered
IUCN_EN	IUCN – Endangered
IUCN_NT	IUCN – Near Threatened
IUCN_VU	IUCN – Vulnerable
IUCN_LC	IUCN – Least Concern
IUCN_DD	IUCN – Data Deficient
IUCN_CD	IUCN – Conservation Dependent
NABCI_RWL	North American Bird Conservation Initiative – Red Watch List
NABCI_YWL	North American Bird Conservation Initiative – Yellow Watch List
NMFS_SC	National Marine Fisheries Service – Species of Concern
USFS_S	U. S. Forest Service - Sensitive
USFWS_BCC	U. S. Fish & Wildlife Service Birds of Conservation Concern
$WBWG_H$	Western Bat Working Group – High Priority
$WBWG_MH$	Western Bat Working Group – Medium-High Priority
$WBWG_M$	Western Bat Working Group – Medium Priority
$WBWG_LM$	Western Bat Working Group – Low-Medium Priority
Xerces: CI	Xerces Society – Critically Imperiled
Xerces: IM	Xerces Society – Imperiled
Xerces: VU	Xerces Society – Vulnerable
Xerces: DD	Xerces Society – Data Deficient



Ultramafic (serpentine) Affinity			
	≥ 5.5	strict endemic	taxa with 95% of their occurrences on ultramafics
< 5.5	≥ 4.5	broad endemic	taxa with 85-94% of their occurrences on ultramafics
< 4.5	≥ 3.5	transition from broad endemic to strong indicator	taxa with 75-84% of their occurrences on ultramafics
< 3.5	≥ 2.5	strong indicator	taxa with 65-74% of their occurrences on ultramafics
< 2.5	≥ 1.5	weak indicator	taxa with 55-64% of their occurrences on ultramafics
< 1.5	≥ 1.0	weak indicator / indifferent	taxa with 50-54% of their occurrences on ultramafics



Appendix B: List of Species Observed



SCIENTIFIC NAME	COMMON NAME
Plants	
Acer macrophyllum	bigleaf maple
Achillea millefolium	common yarrow
Acmispon brachycarpus	short-podded lotus
Adenostoma fasciculatum	chamise
Adiantum jordanii	maiden hair fern
Anaphalis margaritacea	pearly everlasting
Arbutus menziesii	Pacific madrone
Arctostaphylos canescens ssp. canescens	hoary manzanita
Arctostaphylos glandulosa ssp. glandulosa	Eastwood manzanita
Arctostaphylos manzanita spp. manzanita	common manzanita
Avena barbata	slender wild oat
Baccharis pilularis	coyote bush
Cardamine californica	milk maids
Cardamine hirsuta	hairy bittercress
Cardamine oligosperma	Idaho bittercress
Carduus pycnocephalus	Italian thistle
Ceanothus cuneatus var. cuneatus	buckbrush
Ceanothus foliosus var. foliosus	wavyleaf ceanothus
Cerastium glomeratum	mouseear chickweed
Cercocarpus betuloides	mountain mahogany
Chlorogalum pomeridianum var. pomeridianum	wavyleaf soap plant
Claytonia perfoliata	miners lettuce
Cynoglossum grande	Pacific houndstongue
Cynosurus echinatus	bristly dogtail grass
Delphinium nudicaule	red larkspur
Dichelostemma capitatum	blue dicks
Diplacus aurantiacus	sticky mnkey flower
Dryopteris arguta	California wood fern
Elymus glaucus	blue wild rye
Eriophyllum lanatum	common woolly sunflower
Erodium moschatum	storks bill
Erodium spp.	geranium
Erythronium californicum	California fawn lily
Festuca microstachys	small fescue
Festuca perennis	Italian rye
Fritillaria affinis	checker lily
Galium aparine	cleavers
Galium bolanderi	Bolander's bedstraw
Gastridium phleoides	nit grass



SCIENTIFIC NAME	COMMON NAME
Genista monspessulana	french broom
Geranium molle	woodland geranium
Heteromeles arbutifolia	toyon
Hieracium spp.	hawkweed
Holodiscus discolor	oceanspray
Hordeum brachyantherum	common barley
Hypericum concinnum	goldwire
Hypochaeris glabra	smooth cats ear
Iris macrosiphon	ground iris
Lomatum dasycarpum	hog fennel
Lonicera spp.	honeysuckle
Lotus corniculatus	birdsfoot trefoil
Lithophragma affine	common woodland star
Luzula comosa	hairy wood rush
Lysimachia latifolia	Pacific star flower
Medicago polymorpha	bur clover
Micranthes californica	Greene's saxifrage
Microcarpus californicus	q-tips
Mimulus aurantiacus	sticky monkey flower
Nemophila heterophylla	small baby blue eyes
Notholithocarpus densiflorus	tanoak
Pedicularis densiflora	warrior's plume
Pentagramma triangularis	goldenback fern
Phoradendron leucarpum ssp. tomentosum	mistletoe
Pinus attenuata	knobcone pine
Plagiobothrys tenellus	slender popcorn flower
Plantago lancelota	English plantain
Polypodium californicum	California polypody
Polypodium glycyrrhiza	licorice fern
Primula hendersonii	Henderson's shooitng star
Pseudotsuga menziesii	Douglas-fir
Pteridium aquilinum var. pubescens	bracken fern
Quercus berberidifolia	scrub oak
Quercus garryana	Oregon white oak



SCIENTIFIC NAME	COMMON NAME	
Quercus kelloggii	California black oak	
Quercus parvula var. shrevei	Shreve oak	
Quercus wislizeni var. wislizeni	interior live oak	
Ranunculus occidentalis	western buttercup	
Rosa gymnocarpa	wood rose	
Rumex acetosa	sorrel	
Sanicula crassicaulis	Pacific sanicle	
Scutellaria tuberosa	skullcap	
Sequoia sempervirens	coast redwood	
Stachys spp.	hedgenettle	
Stellaria media	chickweed	
Symphoricarpos albus	snowberry	
Torreya californica	California nutmeg	
Toxicodendron diversilobum	poison oak	
Trientalis latifolia	western star flower	
Trifolium microcephalum	small headed clover	
Umbellularia californica	California bay laurel	
Vicia americana	American vetch	
Whipplea modesta	modesty	
Wyethia glabra	smooth mule ears	
Wildlife		
Amphibians		
N/A	-	
Avifauna		
Aphelocoma californica	western scrub jay	
Buteo jamaicensis	red tailed hawk	
Buteo lineatus	red-shouldered hawk	
Cathartes aura	turkey vulture	
Colaptes auratus	northern flicker	
Corvus corax	common raven	
Junco hyemalis	dark-eyed junco	
Melanerpes formicivorous	acorn woodpecker	



SCIENTIFIC NAME	COMMON NAME	
Fish		
N/A	-	
Insects		
N/A	-	
Mammals		
Odocoileus hemionus	mule deer	
Mollusks		
N/A	-	
Reptiles		
N/A	-	



Appendix C: Photographs



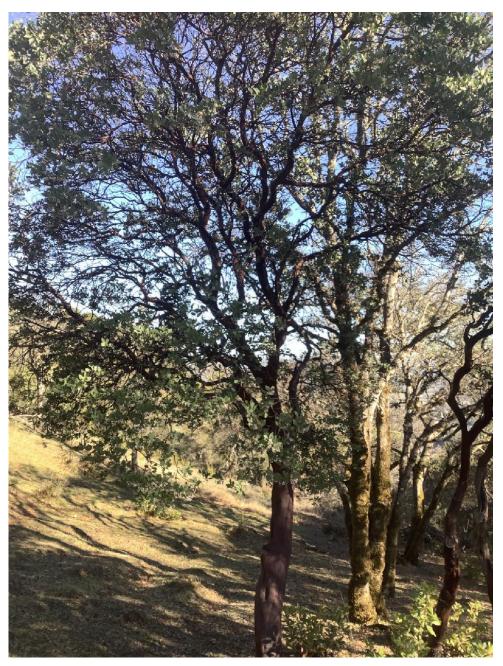


Photo 1: Overview of Study Area.

Photo facing North.





Photo 2: Overview of Study Area.

Photo facing East.





Photo 3:

Overview of Study Area.

Photo facing West.

Date: February 5,





Photo 4: Overview of Study Area.

Photo facing Northwest.

Date: February 5,

2021



Photo 5: Overview of Study Area.

Photo facing Southwest.

Date: February 5,





Photo 6: Cleared area within Study Area.

Photo facing Northwest.





Photo 7:

Overview of Study Area.

Photo facing Northeast.

Date: February

5, 2021





Photo 8:

Overview of Study Area.

Photo facing North.

Date: February

5, 2021





Photo 9:

Overview of Study Area.

Photo facing East.

Date: February 5,





Photo 10:

Overview of Study Area.

Photo facing Southeast.

Date: February 5,





Photo 11:

Overview of Study Area.

Photo facing West.

Date: February 5,





Photo 12:

Overview of Study Area.

Photo facing West.

Date: February 5,





Photo 13:

Overview of Study Area.

Photo facing West.

Date: February 5,





Photo 14:

Overview of Study Area.

Photo facing South.

Date: February 5,





Photo 15:

Overview of Study Area.

Photo facing Southwest.

Date: February 5,





Photo 15:

Clearing within Study Area.

Photo facing North.





Photo 17:

Overview of Study Area (at edge looking towards Ukiah).

Photo facing East.





Photo 18: Within a clearing in Study Area (and looking past).

Photo facing Northeast.





Photo 19:

Overview of Study Area.

Photo facing North.





Photo 20:

Overview of Study Area (showing road).

Photo facing West.





Photo 21:

Overview of Study Area (showing cleared area).

Photo facing West.



JACOBSZOON & ASSOCIATES, INC.



Photo 22:

Overview of Study Area (showing road).

Photo facing West.

Date: February 5, 2021



JACOBSZOON & ASSOCIATES, INC.

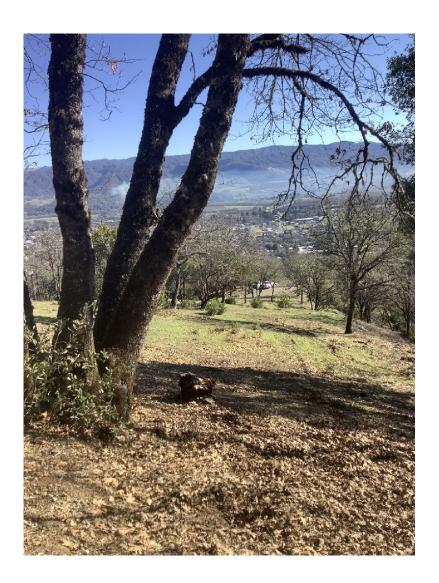


Photo 23:

Overview of Study Area.

Photo facing East.

Date: February 5,

2021



JACOBSZOON & ASSOCIATES, INC.



Photo 24:

Overview of Study Area.

Photo facing West.

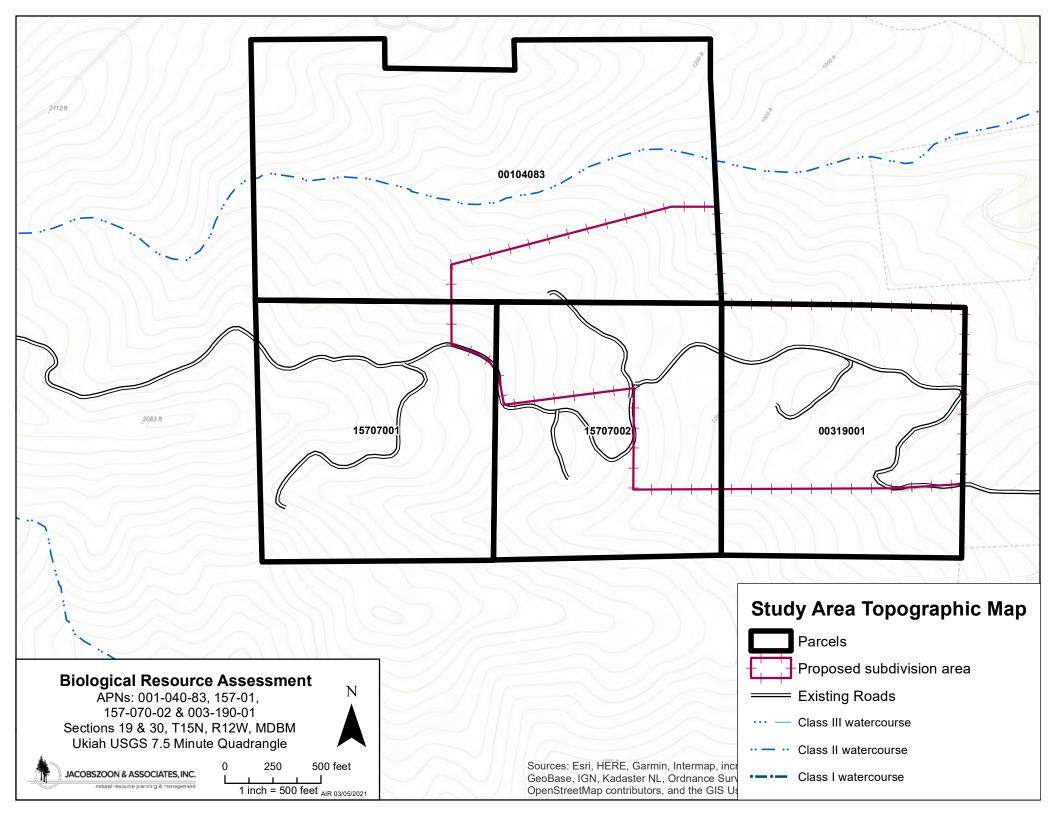
Date: February 5,

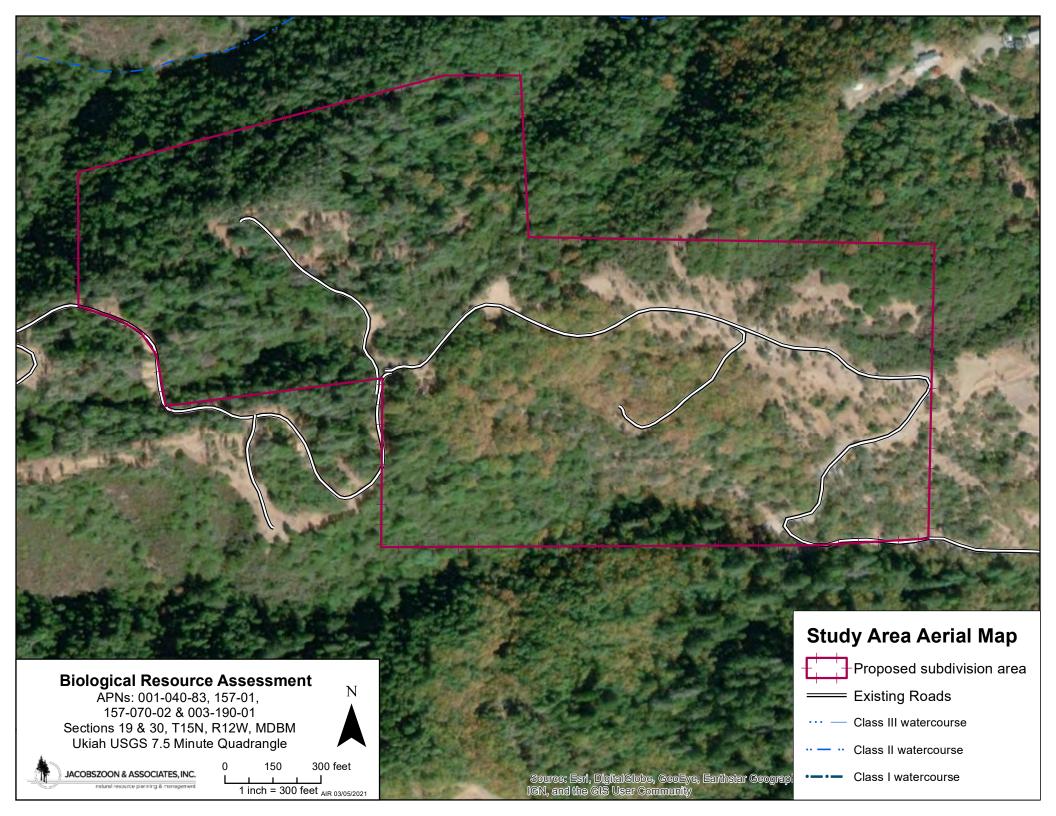
2021

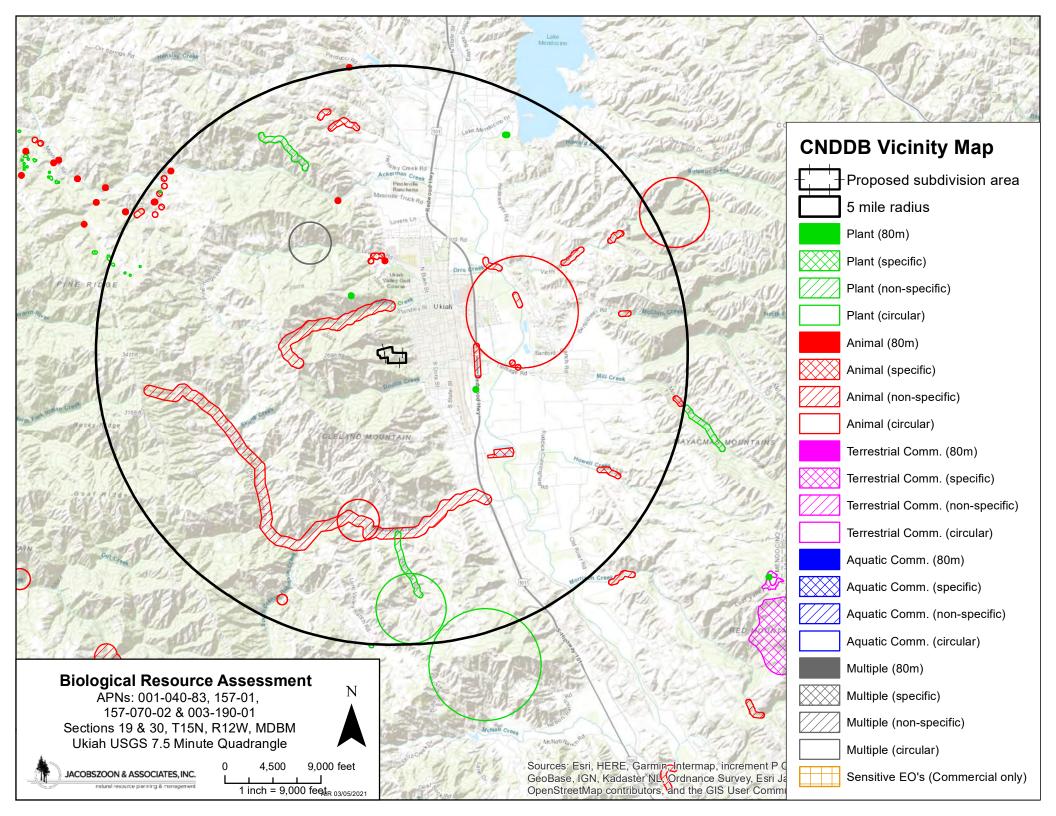


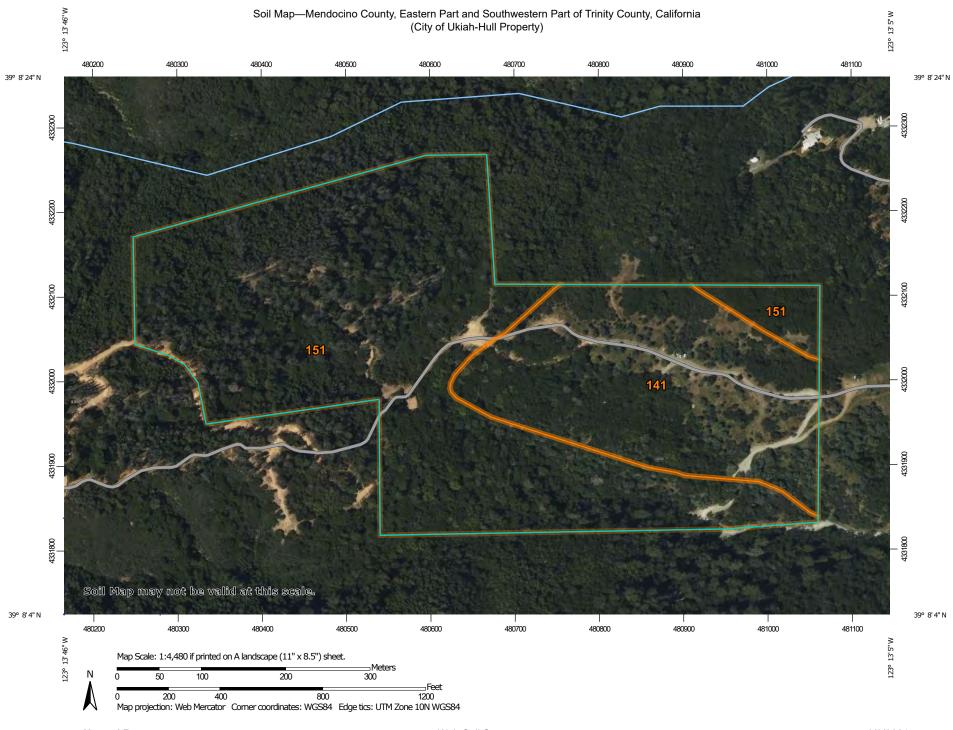
Appendix D: Maps











MAP LEGEND

Area of Interest (AOI) Area of Interest (AOI)

Soils





Soil Map Unit Lines



Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



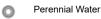
Lava Flow Marsh or swamp



Mine or Quarry



Miscellaneous Water





Rock Outcrop Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot

Spoil Area



Stony Spot



Very Stony Spot



Wet Spot Other



Special Line Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24.000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Mendocino County, Eastern Part and Southwestern Part of Trinity County, California Survey Area Data: Version 15, Jun 1, 2020

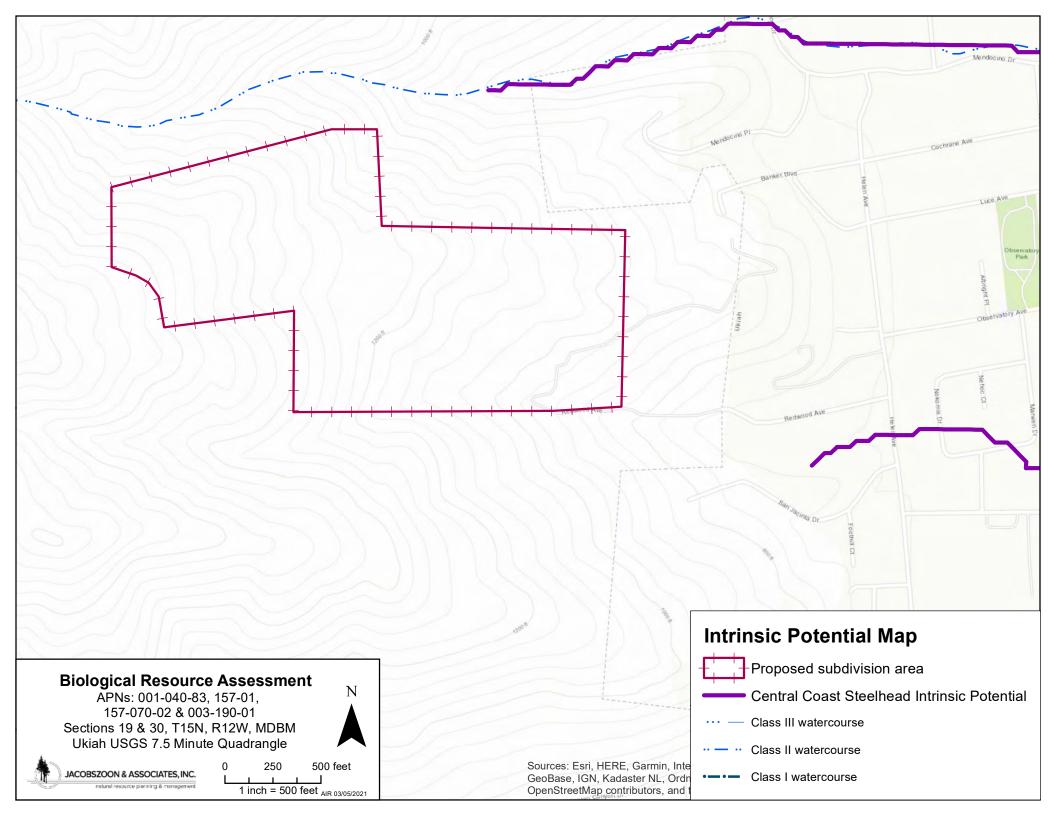
Soil map units are labeled (as space allows) for map scales 1:50.000 or larger.

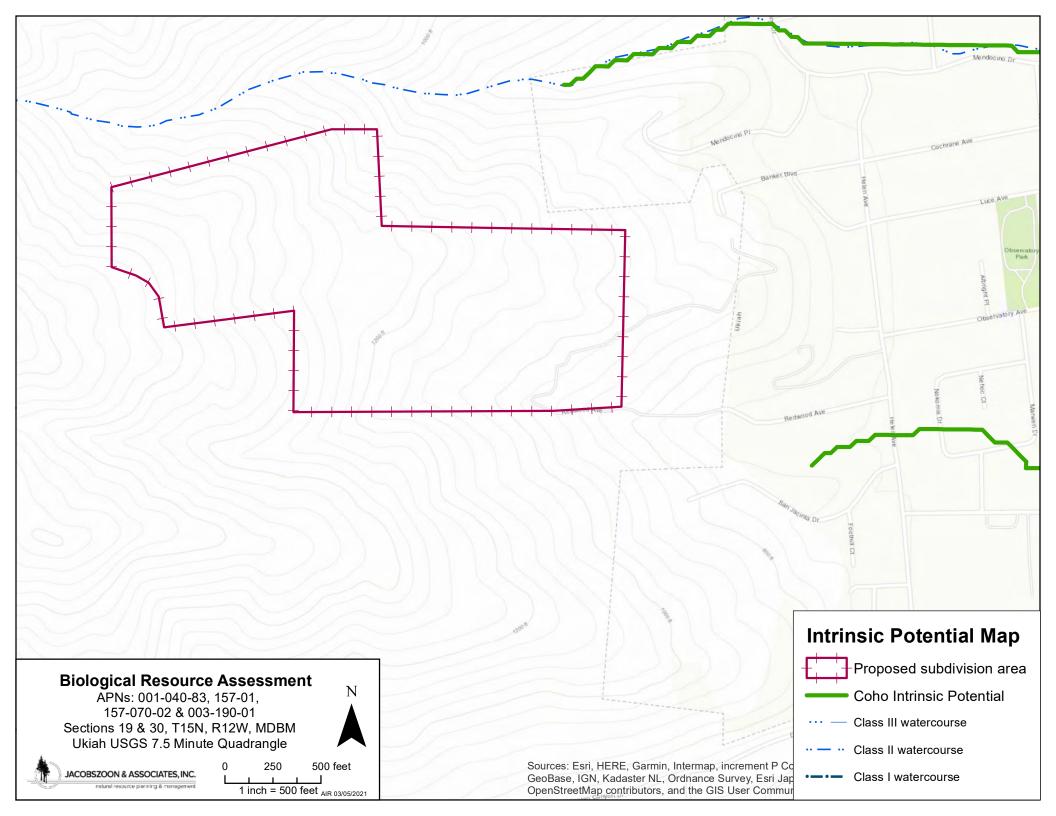
Date(s) aerial images were photographed: May 5, 2019—Jun 3. 2019

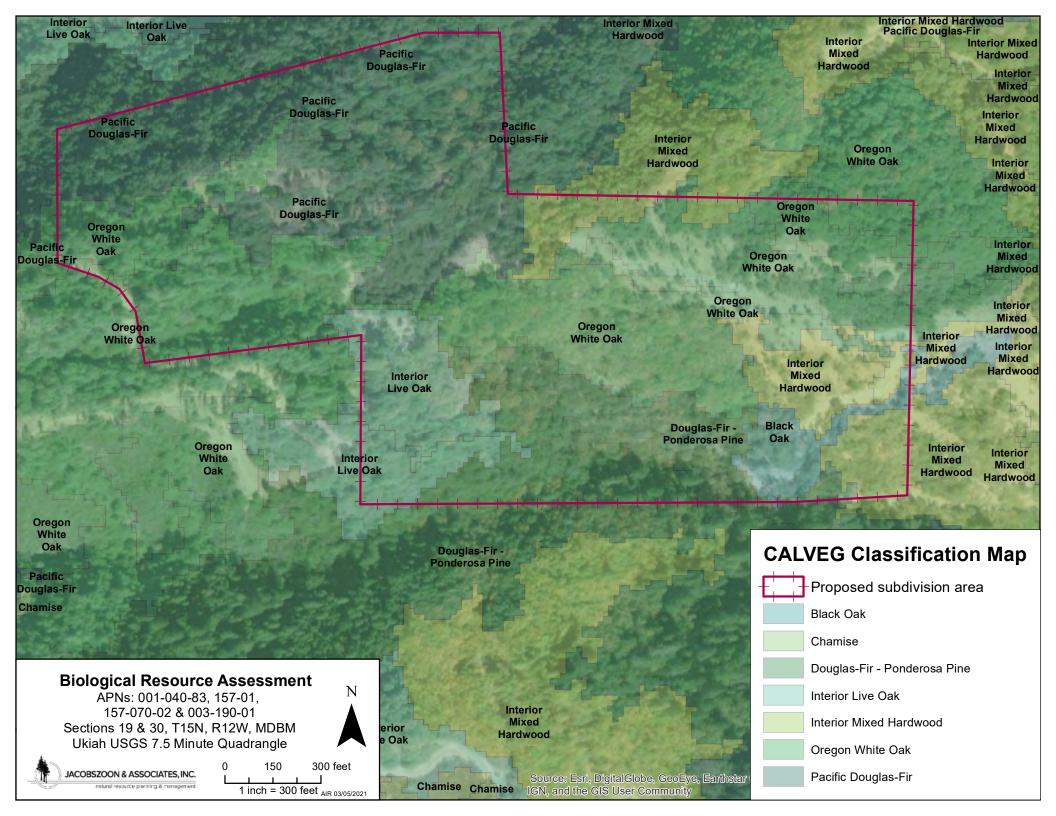
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

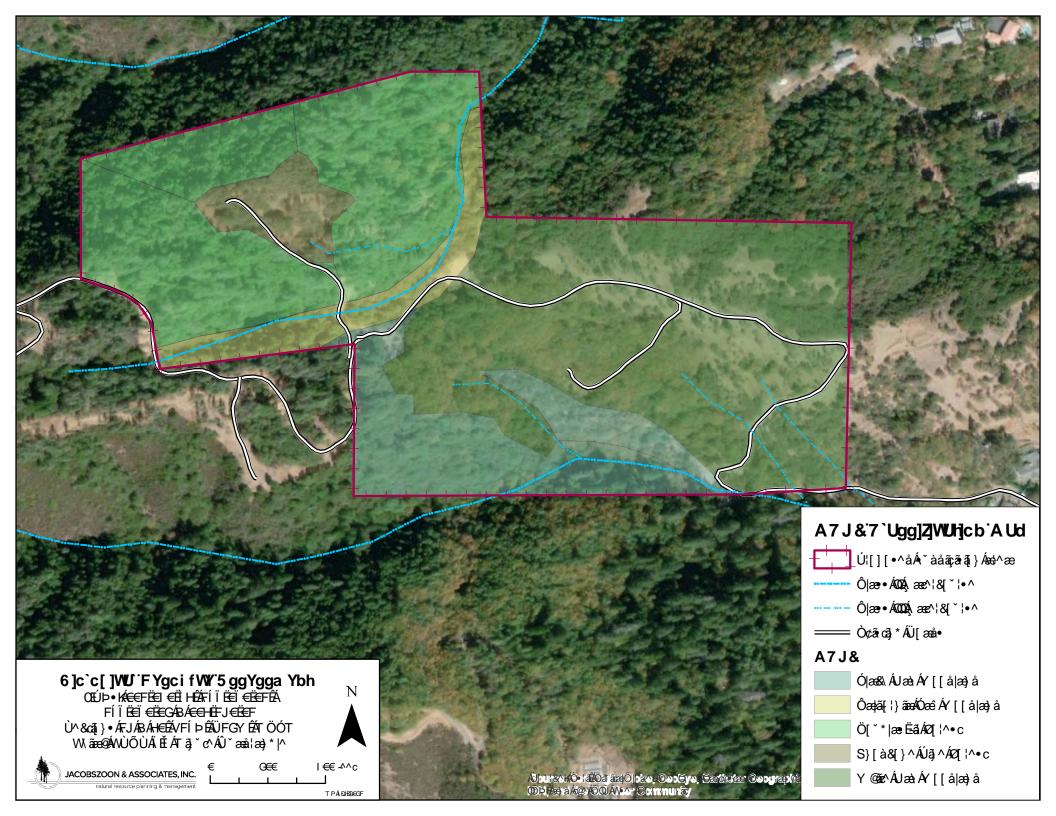
Map Unit Legend

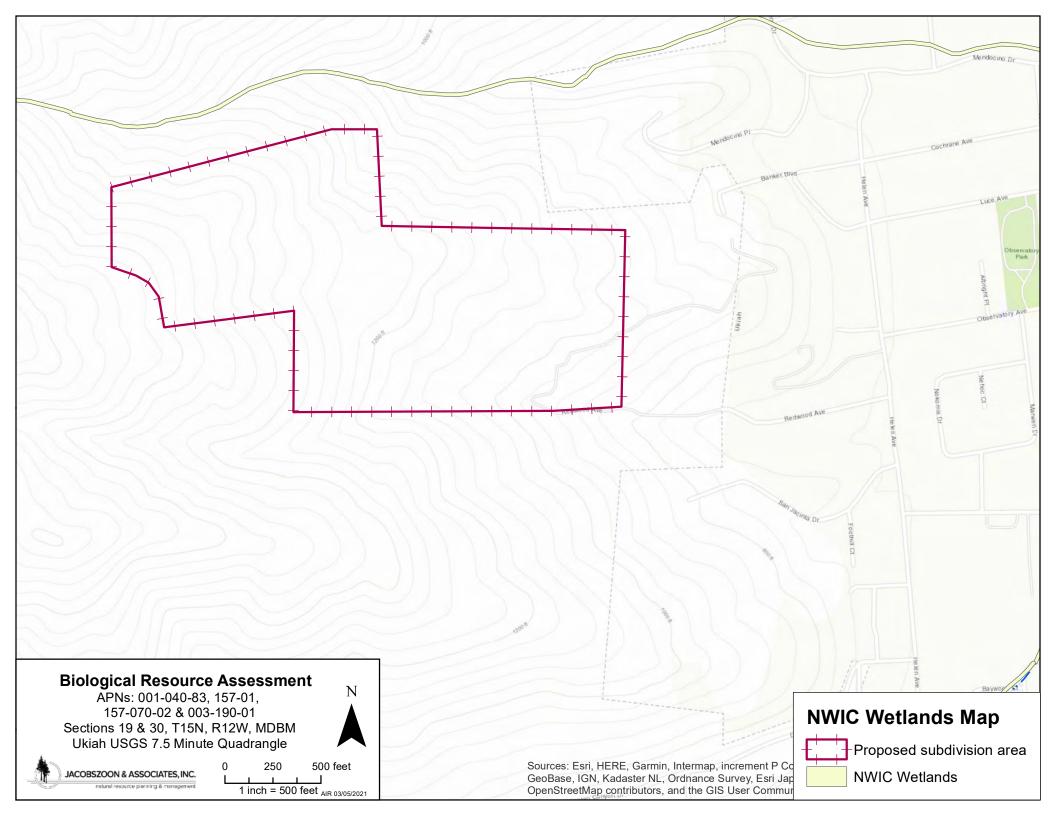
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
141	Hopland loam, 30 to 50 percent slopes, high ffd	18.6	31.4%
151	Hopland-Wohly loams, 50 to 75 percent slopes	40.6	68.6%
Totals for Area of Interest		59.2	100.0%

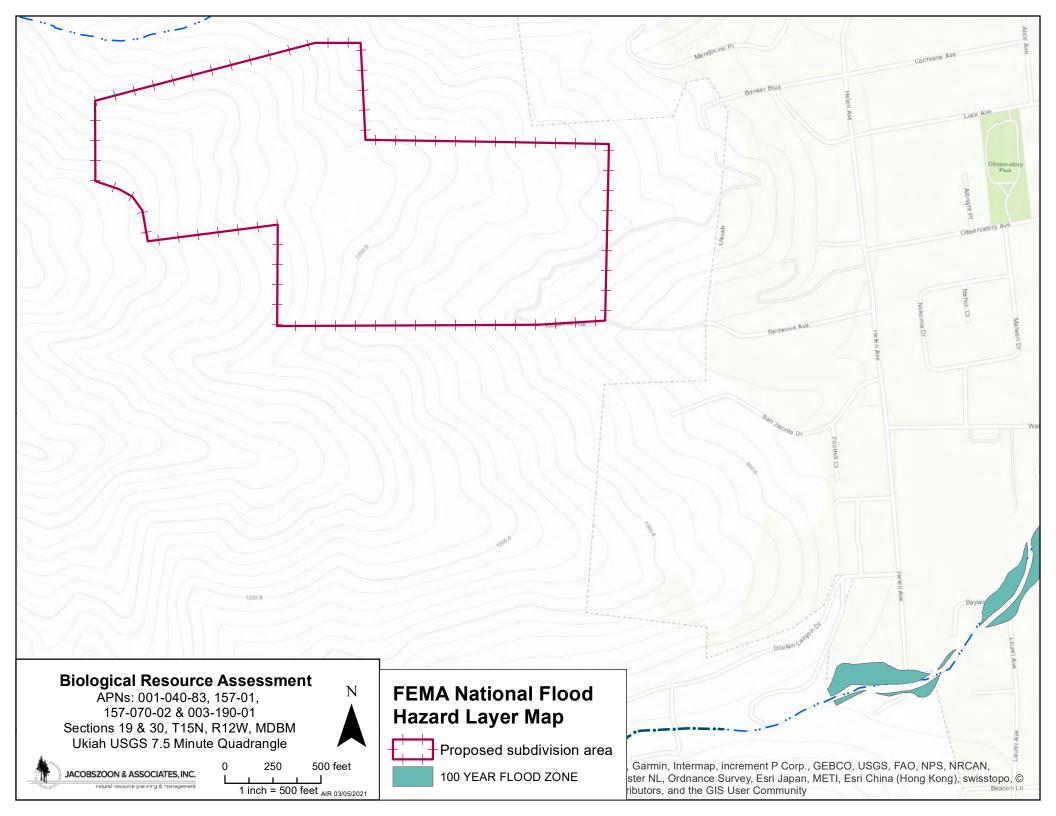












Appendix E: Supporting Documents





United States Department of the Interior



FISH AND WILDLIFE SERVICE

Arcata Fish And Wildlife Office 1655 Heindon Road Arcata, CA 95521-4573 Phone: (707) 822-7201 Fax: (707) 822-8411

In Reply Refer To: February 23, 2021

Consultation Code: 08EACT00-2021-SLI-0169

Event Code: 08EACT00-2021-E-00382

Project Name: City of Ukiah

Subject: List of threatened and endangered species that may occur in your proposed project

location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan

(http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Arcata Fish And Wildlife Office

1655 Heindon Road Arcata, CA 95521-4573 (707) 822-7201

This project's location is within the jurisdiction of offices which do not participate in IPaC's automated species list delivery. Please contact the following offices directly for more information:

Red Bluff Fish And Wildlife Office

10950 Tyler Road Red Bluff, CA 96080-7762 (530) 527-3043

Project Summary

Consultation Code: 08EACT00-2021-SLI-0169 Event Code: 08EACT00-2021-E-00382

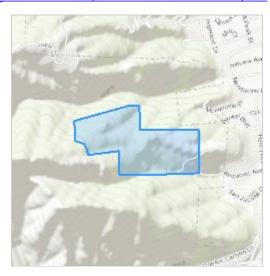
Project Name: City of Ukiah

Project Type: LAND - ACQUISITION

Project Description: Parcel line adjustment to create 7 lots within approximately 55 acres

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@39.13734495,-123.22381603736494,14z



Counties: Mendocino County, California

Endangered Species Act Species

There is a total of 7 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an
office of the National Oceanic and Atmospheric Administration within the Department of
Commerce.

Birds

NAME STATUS

Northern Spotted Owl Strix occidentalis caurina

Threatened

There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/1123

Western Snowy Plover Charadrius nivosus nivosus

Threatened

Population: Pacific Coast population DPS-U.S.A. (CA, OR, WA), Mexico (within 50 miles of

Pacific coast)

There is **final** critical habitat for this species. The location of the critical habitat is not available.

Species profile: https://ecos.fws.gov/ecp/species/8035

Yellow-billed Cuckoo *Coccyzus americanus*

Threatened

Population: Western U.S. DPS

There is **proposed** critical habitat for this species. The location of the critical habitat is not

available.

Species profile: https://ecos.fws.gov/ecp/species/3911

Amphibians

NAME STATUS

California Red-legged Frog Rana draytonii

Threatened

There is ${\it final}$ critical habitat for this species. The location of the critical habitat is not available.

Species profile: https://ecos.fws.gov/ecp/species/2891

Flowering Plants

NAME STATUS

Burke's Goldfields Lasthenia burkei

Endangered

No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4338

Contra Costa Goldfields *Lasthenia conjugens*

Endangered

There is **final** critical habitat for this species. The location of the critical habitat is not available.

Species profile: https://ecos.fws.gov/ecp/species/7058

Showy Indian Clover *Trifolium amoenum*

Endangered

No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6459

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

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OF, ãi, æ∳•ÁË Óãiå•	Ôã& • Á@ å•[}ã•	}[c@ }Á@# a*	ŒÓÞSÔFF€FF	Þ[}^	Þ[}^	ÙÙÔ	Ë	HJFGHFF	ÚWÜÖŸÙ ÕŒÜÖÒÞÙ	W}]¦[&^••^å	OF, a; a; AFÓ a; AE OB& B; at a a; AFÓ a; AE @ a; [} a •
OF, ãi, æ∳•ÁË Óãiå•	Ò æ) ˇ•Á(^ ˇ & ˇ ¦ ˇ •	, @ar^Ecæap^åÁar∕	ŒÓÞSԀ΀F€	Þ[}^	Þ[}^	ØÚ	Ë	HJFGHG	ÜÒÖY UUÖ XŒŠŠÒŸ	W}]¦[&^••^å	OF, a a AFO AFO
OBjā(a⇔AË Óālå•	Œå^æÁ@⊹[åãæ•	*	OEÓÞÕOEEI€F€	Þ[}^	Þ[}^	Ë	Ë	HJFGHGG	WSOOP	W}]¦[&^••^å	CE; ã; æṭ• ÁÃÓãå• ÁÃÓEå^ããæ• ÁÃ CEå^æð@:[åãæ•
OBjā[a‡•ÆË Óālå•	OE* ^ æã • Ád &&[[¦	dã&[∥[¦^åÁà æ&\àãåå	ŒÓÚÓÝÓ€€G€	Þ[}^	V@^æe^}^å	ùùô	Ë	HJFGHF	ÚUVVÒÜ XŒŠŠÒŸ	Tæ]]^å	CE; ã; 懕 ÁĒÁÓÃI å• ÁĒÁOÃC^¦ ãña æ° ÁĒ CĒ^ æãi• Ás¦ãK[[¦
OBjā[a‡•ÆË Óālå•	Qkc^¦ãæ∮çã^}•	^^ [¸ Ëa¦^æ•¢^åÁ&@æc	ŒÓÚÓÝGI €F€	Þ[}^	Þ[}^	ùùô	Ë	HJFGHF	ÚUVVÒÜ XŒŠŠÒŸ	W}]¦[&^••^å	CE; ā[æ]• ÁĒŽÓāå• ÁĒŽO\$@^\; āmāæ• ÆĒ O\$@^\; āmā•ā^}.•
OBjā[a‡•ÆË Óālå•	Qkc^¦ãæ∮çã^}•	^^ [¸ Ëa¦^æ•¢^åÁ&@æc	ŒÓÚÓÝGI €F€	Þ[}^	Þ[}^	ùùô	Ë	HJFGHG	ÜÒÖY UUÖ XŒŠŠÒŸ	W}]¦[&^••^å	CE; ā[æ]• ÁĒŽÓāå• ÁĒŽO\$@^\; āmāæ• ÆĒ O\$@^\; āmā•ā^}.•
OBjā[a‡•ÆË Óālå•	Qkc^¦ãæ∮çã^}•	^^ [¸ Ëa¦^æ•¢^åÁ&@æc	ŒÓÚÓÝGI €F€	Þ[}^	Þ[}^	ùùô	Ë	HJFGHGG	WSQEP	W}]¦[&^••^å	CE; ā[æ]• ÁĒŽÓāå• ÁĒŽO\$@^\; āmāæ• ÆĒ O\$@^\; āmā•ā^}.•
OBjā(a⇔ĀË Óāå•	Qc^¦ãæ∮çã^}•	^/ [, Ëa¦^æ•c^å/&@æc	ŒÓÚÓÝGI €F€	Þ[}^	Þ[}^	ÙÙÔ	Ë	HJFGHGF	ÔUY TUWÞVŒÐ	W}]¦[&^••^å	CE; ã; æ; ÁÃÓãå• ÁÃÁÃC CB; ã; æ; ÁÃÓãå• ÁÃÁÃC CB; ã; æ; ã
OBjā[æ∳ÆË Óālå•	(3 ¢^¦ã ∞(\$ã^}•	^/ [, Ëa¦^æ¢^å/&@æ¢	ŒÓÚÓÝGI €F€	Þ[}^	Þ[}^	ÙÙÔ	Ë	HJFGHFG	ÒŠŠÒÖÕÒ ÚÒŒS	W}]¦[&^••^å	CE; ã; æṭ• ÁÃÓãå• ÁÃÁÃC CB; ã; æṭ• ÁÃÓãå• ÁÃÁÃC CB; ã; æṭ• ÃÃ
O. ţā a ţ a ţ ĀË Óāå•	Úæ)åã[}Á@e†ãæ^č•	[•]¦^^	ŒÓÞSÔ€F€F€	Þ[}^	Þ[}^	ΥŠ	Ë	HJFGHFF	ÚWÜÖŸÙ ÕŒÜÖÒÞÙ	T æ}]^å	Oṣ ā; aṭ+ ĀĒÓāå• ĀĒ Úæ; àā; }āāæ ĀĒÚæ; åā; } @eṭāæ° č•
OF, ãi, æ∳•ÁË Óãiå•	Úæ)åã[}Á@e†ãæ^č•	[•]¦^^	ŒÓÞSÔ€F€F€	Þ[}^	Þ[}^	ΥŠ	Ë	HJFGHGG	WSOOF	T æ ‡]^å	OḤ āṭ aṭ+ ĀĒÓāå+ĀĒ Úæ; àāṭ} āāæ ĀĒÚæ; åāṭ} @eṭāæ°č•
OFFaï(ad+AË Óaïå•	Úæ)åã[}Á@dãæ≏č•	[•] ^^	ŒÓÞSÔ€F€F€	Þ[}^	Þ[}^	ΥŠ	Ë	HJFGHF	ÚUVVÒÜ XŒŠŠÒŸ	W}]¦[&^••^å	OḤ āṭ aṭ+ ĀĒÓāå+ĀĒ Úæ; åāṭ}āāæ ĀĒÚæ; åāṭ} @æṭāæ°č•
OBjā(a⇔AË Óālå•	Óæ^[[] @ • å [¦} æč •	[ækáñá([ˇ•^	ŒÓÚŒY €FF€€	Þ[}^	Þ[}^	Ë	Ë	HJFGHGG	WSOOP	W}]¦[&^••^å	CE; ã; æṭ• ÁÃÓãå• ÁÃÚæàããæ• ÁÃ Óæº[∥] @•Á§; [¦}ææ•
OBjā(a⇔ĀË Óāå•	Óæ^[[] @ • å,[¦} æë •	[ækÁxãx([ˇ•^	ŒÓÚŒY €FF€€	Þ[}^	Þ[}^	Ë	Ë	HJFGHFG	ÒŠŠÒÖÕÒ ÚÒŒS	W}]¦[&^••^å	OB; ãi æ ja já
OEjāja⇔ÆË Óājå•	Óæ^[[]@• a][¦}æĕ•	[æà-Ásãa([ˇ∙^	ŒÓÚŒY €FF€€	Þ[}^	Þ[}^	Ë	Ë	HJFGHFF	ÚWÜÖŸÙ ÕŒÜÖÒÞÙ	W}]¦[&^••^å	OB, ãl. adp. ÁŽÍÓÃI å p. ÁŽÍÚæð ÃÃI æð ÁÆ Óæ? [[] @ p. ÁÐ, [} æð. p.
OEjāja⇔ÆË Óājå•	Ù^{[] @et æ4],^c^&@ee	^^ [, Á, æàà ^¦	ŒÓÚÓÝ€H€F€	Þ[}^	Þ[}^	ùùô	Ë	HJFGHFG	ÒŠŠÒÖÕÒ ÚÒŒS	W}]¦[&^••^å	CB ā(æ Þ Á 描 Ó ā å • Á 描 Ú æ ˇ ã a æ ◆ Á Ē Ù ^ d[] @ 幸 æ 身 ^ c * & @ æ
OBjā[æ∳ÆË Óālå•	Ù^([] @e# æ4j\^c^&@ae	^^ [, Á, æàà ^¦	ŒÓÚÓÝ€H€F€	Þ[}^	Þ[}^	ùùô	Ë	HJFGHF	ÚUVVÒÜ XŒŠŠÒŸ	W}]¦[&^••^å	CE; āṭ æṭ• Á莊Óāå• Á莊Úæ; ãāæ ÁĒ Ù^ॡ] @ætæÁj^৫%&@æe
OF, ãi, æ∳•ÁË Óãiå•	OE { [ålæ{ ັ• •æçæ)}æ'{	*¦æ•@]]^¦Ái]æ¦[,	ŒÓÚÓÝŒŒ€Œ	Þ[}^	Þ[}^	ùùô	Ë	HJFGHFF	ÚWÜÖŸÙ ÕŒÜÖÒÞÙ	T æ }]^å	O5; ā; 懕 ÆÄÓðåå• ÆË Úæ••^¦^∥ãåæ• ÆË OE; {[妿; ˇ• Á;æçæ;}}æ÷ {

OBjāja†•ÆË Óāiå•	T^ æ)^¦]^•Á(^,ã	š^, ã⁄Q́, [[å]^&\^¦	OEÓÞŸØ€F€	Þ[}^	Þ[}^	Ë	Ë	HJFG -F G	ÒŠŠÒÖÕÒ ÚÒŒS	W}]¦[&^••^å	O5; ã; 憕 ÆÖÓãå • ÆÖÚã&ããæ ÆÆ T^ æ; ^¦]^• Áp°, ã•
OBjā[a†•AË Óāå•	T^ æ}^¦]^•Á(^,ã	Š^, ã Ø, [[å] ^&\ ^¦	OEÓÞŸØ€ €F€	Þ[}^	Þ[}^	Ë	Ë	HJFGHGG	WSOOP	W}]¦[&^••^å	OEjā[憕 ÁĒŽÓālå• ÁĒÁÚā&āāæ AĒ T^ æ}^¦]^• Áp^, ã
OŞã(a‡•ÁË Óãå•	Ùdão Á, &&ãã^} caqã &e ĕ¦ãjæ	Þ[¦c@¦}ÁÙ][co^åÁU,	ŒÓÞÙÓFŒFF	V@^æe^}^å	V@^æe^}^å	Ë	Ë	нуға н ғн	ÓUUÞX (Š ŠÒ	Tæ]]^å	CE; ā; æ † ÁEÁÓāå * ÁEÁÚdā ā āāæ AÉ Ùdā¢Á; &&āā^} cæ †ā Æ ;ā; æ
OBjā[a†•AË Óāå•	Ùdão Á, &&ãã^} cæþã &æ ¦ã, æ	Þ[¦c@-¦}ÁÛ][cc^åÁU,	ŒÓÞÙÓFŒFF	V@^æe^}^å	V@^æe^}^å	Ë	Ë	HJFGHGH	UÜÜÙ ÙÚÜ Œ ÕÙ	Tæ]]^å	CE; ã; æ † Á Á Á Ó ã å • Á Á Á Ú d ã ã á æ e Á É Ù d ã c Á; & & ã à ^ } cæ † Á & æ † ∄; æ
OBjā[a†•AË Óāå•	Ùdão Á, &&ãã^} cæþã &æ ¦ã, æ	Þ[¦c@-¦}ÁÛ][cc^åÁU,	ŒÓÞÙÓFŒFF	V@^æe^}^å	V@^æe^}^å	Ë	Ë	HJFGHF	ÚUVVÒÜ XŒŠŠÒŸ	Tæ]]^å	CE; ā; 懕 ÁĒŽÓāå• ÁĒÂÚdā* āāæ AĒ Ùdā¢Á; &&āā^} œ ķā Á&æ* ¦ā; æ
OBjā[a†•AË Óāå•	Ùdão Á, &&ãã^} cæþã &æ ¦ã, æ	Þ[¦c@-¦}ÁÛ][cc^åÁU,	ŒÓÞÙÓFŒFF	V@^æe^}^å	V@^æe^}^å	Ë	Ë	HJFGHG	ÜÒÖY UUÖ XŒŠŠÒŸ	Tæ]]^å	CE; ā; 懕 ÁĒŽÓāå• ÁĒÂÚdā* āāæ AĒ Ùdā¢Á; &&āā^} œ ķā Á&æ* ¦ā; æ
OBjā[a†•AË Óāå•	Ùdão Á, &&ãã^} cæþã &æ ¦ã, æ	Þ[¦c@-¦}ÁÛ][cc^åÁU,	ŒÓÞÙÓFŒFF	V@^æe^}^å	V@^æe^}^å	Ë	Ë	HJFGHH	ŠŒNÕPŠŒ ÜŒÞÕÒ	Tæ]]^å	CE; ā; 懕 ÁĒŽÓāå• ÁĒÂÚdā* āāæ AĒ Ùdā¢Á; &&āā^} œ ķā Á&æ* ¦ā; æ
OEjāja‡rÁË Øãi@	ŠæçājāæÁn^{{ ^dā&`• }æçæb¦[^}•ãn	Þæçæ¦[Á[æ&@	ŒØÔRÓFJ€GH	Þ[}^	Þ[}^	ÙÙÔ	Ë	нуғанан	υϋϋὺ ὺύϋ Φ Õὺ	W}]¦[&^••^å	CE; ā; æ; ĀĒKĀS; @ĀĒKĀĈ^] ¦ā; āā æ; ĒĀŠæ;ā; āæ; Ā; { ^dā&; • }æ;æ; [^}•ā
O5jāja‡rAË Øãr@	ŠæçājāæÁr^{{ ^dā&`• ••]ÉÁ	Ô ^æk/Šæ\^ÆÄÜ*••ãæ) ÆÜāç^¦ ¦[æ&@	ŒÔRÓFJ€GJ	Þ[}^	Þ[}^	ùùô	Ë	HJFGHH	ŠŒWÕPŠŒ ÜŒÞÕÒ	W}]¦[&^••^å	O Şajad + AĞA Zai QAĞA (QAĞA) 1 jaja ağad + Ağa Zai
OEjāja‡•AË Øãi@	P^•c^\{[&eds] ັ•Ándaen \aaa ætੱ}æ^	Ô ^ælÆsæl^Æs ^Ás ^.\&@	ŒÔÛS€ŒFH	Þ[}^	Þ[}^	ùùô	Ë	HJFGHGF	ÔUY TUWÞVŒÐÞ	Tæ}]^å	OE, āļ ad• ĀĒĀOē @ĀĒ Ò(àāļ d¦ &āā ad• ĀĒ P^• d°¦[&ad•] *• Ād ad• \āā ad* } ad•
OEjāja‡rÆË Øãr@	P^•o^\[&æd] ˇ•Ádæ•\ãã][{[Ü*•• ãæ) ÁÜãç^¦Áš ^Á;^¦&@	ŒZÔÛS€G€FF	Þ[}^	Þ[}^	ùùô	Ë	HUFGHGF	ÔUY TUWÞVŒÐ	W}]¦[&^••^å	O ţā a ţ p ĀĒKO tā @ĀĒ Ò (à ā t d & & a & A É P^• o ^ t [& æ t] * • Ād æ • \ ā ā Ā [{ [
OEjāja‡rÆË Øãr@	P^•o^\[&æd] ˇ•Ádæ•\ãã][{[Ü*•• ãæ) ÁÜãç^¦Áš ^Á;^¦&@	ŒZÔÛS€G€FF	Þ[}^	Þ[}^	ùùô	Ë	HJFGHFG	ÒŠŠÒÖÕÒ ÚÒŒS	W}]¦[&^••^å	O Ęą̃a+p A ÄÄO A @AË Ò (àą̃d & & Bà & AË P^• o '¦ & & a }`• Ada• \ ääÁ, [{ [
O5jāja‡rÆË Øãr@	P^•o^¦[&æ-a] ັ•Ántæ-\ãã][{[Ü`••ãæ) ÁÜãç^¦Ás ^Á;^¦&@	ŒZÔÛS€G€FF	Þ[}^	Þ[}^	ùùô	Ë	HJFGHGG	WSOEP	W}]¦[&^••^å	O5;ā;æ† Á5ÉØā @ÁÉ Ò(àā;d;&āāæ*ÁÉ P^•ev¦[&æ;]*•Ádæ•\āāÁ;[{[
O5jāja‡rAË Øãr@	P^•o^\[&æd] ઁ•Ádæe\ãã][{[Ü*•• ãæ) ÁÜãç^¦Ás ^Á;^¦&@	ŒZÔÛS€G€FF	Þ[}^	Þ[}^	ùùô	Ë	нуға н н	ŠŒWÕPŠŒ ÜŒÞÕÒ	W}]¦[&^••^å	O. ţā a p Á BÁ KA A (A E Ò (à ặ d (& Bà a A A E P^• o'. [& a e] `• Ád a e \ā BÁ [{ [
O5jāja‡rAË Øãr@	P^•o^\[&æd] ઁ•Ádæe\ãã][{[Ü*•• ãæ) ÁÜãç^¦Ás ^Á;^¦&@	ŒZÔÛS€G€FF	Þ[}^	Þ[}^	ùùô	Ë	нуганан	υϋϋὺ ὺύϋ Φ Õὺ	W}]¦[&^••^å	O. ţā a p Á BÁ KA A O. MÉ Ò (à ặ d & & a & A É P^• o': [& & a] `• Ád æ \ād Á [{ [
O5jāja‡•ÆË Øãi@	P^•o^¦[&æd] ઁ•Ádæe\ãã][{[Ü`••ãæ) ÁÜãç^¦Áš ^Á;^¦&@	ŒZÔÛS€G€FF	Þ[}^	Þ[}^	ùùô	Ë	HJFGHF	ÚUVVÒÜ XŒŠŠÒŸ	W}]¦[&^••^å	O
O5jāja‡•AË Øãi@	P^•o^¦[&æd] ઁ•Ádæe\ãã][{[Ü~••ãæ) ÁÜãç^¦Áš ^Áj^¦&@	ŒZÔÛS€G€FF	Þ[}^	Þ[}^	ÙÙÔ	Ë	HJFGHG	ÜÒÖY UUÖ XŒŠŠÒŸ	W}]¦[&^••^å	O B a a a a a a a a a a a a a a a a a a
O5jāja‡rÁË Øãi@	P^•o^¦[&æ-] ॅ•Ástæ-\ãã][{[Ü*••ãæ) ÁÜãç^¦Ás ^Á;^¦&@	ŒZÔÛS€G€FF	Þ[}^	Þ[}^	ÙÙÔ	Ë	HJFGHFF	ÚWÜÖŸÙ ÕŒÜÖÒÞÙ	W}]	O B, a a a a a a a a a a a a a a a a a a

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O5jāja†•Æi Øãi@	Ò} ([•] @} *• dãā^} cæe* •	Úæstáðatárá]¦^^	ŒZÓŒŒŒŒ	Þ[}^	Þ[}^	ùùô	Ë	нуға н н	ŠŒWÕPŠŒ ÜŒÞÕÒ	W}]¦[&^••^å	O. F. a.
O5jāja‡•AË Øãi@	Ò} ([•] @} °• dãa^} cæeč•	Úæsta de j¦^^	OEZÓOEDEEGF€€	Þ[}^	Þ[}^	ùùô	Ë	нуганан	υϋϋὺ ὺύϋΦοῦ	W}]¦[&^••^å	O. j. j. a. j.
O5jāja‡•AË Øãi@	U}&[¦@}&@• \æ̃`&&@¶[]ÈÄG	&[@[Áræk[[] ÁÉÁ[[~c@+]} U!^*[] ÁÁÁ[[+c@+] ÁÓæká[+] áæe ÒÙW	ŒÔPŒŒHG	V@^æe^}^å	V@^æe^}^å	Ë	Ë	HJFGHH	ŠŒNÕPŠŒ ÜŒÞÕÒ	W}]¦[&^••^å	OE;ā(a++ ĀĒAOē @ĀĒ Ùa+([}āāa>+ĀĒ U}&{¦@}&@•Áā*c&@Ā,[]È G
O5jājæ∳ÁË 26ā@	U}&[¦@}&@∙ \ã*`o&@Á[]ÈÁ	& (@ Áræ)([}ÁEXN} dæ) Öæ)á[¦ }áex8(æ o NOÙW	ŒÔPŒŒH	Ò} åæ) *^¦^å	Ò} åæ) *^¦^å	Ë	Ë	HJFGHGG	WSQIP	W}]¦[&^••^å	OE; a[ad+ÁBÖ266 @AE Ùad{[}ããad+ÁE U}&{¦@}&@•Áã~c&@Á[]È I
O5jājæ∳ÁË ⊘ãj@	U}&[¦@}&@∙ ∖ã*`o&@Á[]ÈÁ	& (@ Áræ) ([} ÁÉÉAN} dæ) Öæjá[} ámás[æ o NÖÜW	ŒÔPŒŒH	Ò} åæ) *^¦^å	Ò} åæ) *^¦^å	Ë	Ë	HJFG -F H	ÓUUÞXŒŠÒ	W}]¦[&^••^å	OS a[ad+ÁB200e OAÉ Ùad{[}ãe ad+ÁE U}&[¦@}&@•Áã*c&@Á[]È I
OE,ā(a‡•ÁË Øão@	U}&{:@}&@• {^\ã•Ásãa^`•Á;[]È FÎ	• &^ @ æ á ÁEÁ [¦ c@ ¦ } ÁÔæ á á [¦ } ã e ÖÚÙ	OEZÔPOŒG€JÛ	V@^æe^}^å	Þ[}^	Ë	Ë	HJFGHFH	ÓUUÞXŒŠŎ	W}]¦[&^••^å	OB; ā[ad+ĀĒAOē@Ē Ùad{[}āāao*ĀĒ U}&{¦@}&@•Á[^\ā*• āāā^*•Á[]ĒĀĒÎ
O5jāja‡•AË Øãi@	U}&[¦@}&@• {^\ã•Ásãa^`•Ás[]È FÎ	• &^ @ æ\$#ÁE;[c@ } ÁÔæ;[} ãæ ÖÚÙ	ŒZÔPŒŒ€JÛ	V@^æe^}^å	Þ[}^	Ë	Ë	HJFGHGH	υϋϋὺ ὺύϋΦΟῦ	W}]¦[&^••^å	O5;ā;ad+AË206;@Ē Ùad∤[}āñad>ĀË U}&[¦@]&@•Á;^\ā• āāā^*•Á;[]ĔĀrÎ
O5jāja‡rÁË Øãi@	U}&[¦@}&@∙ {^\ã•Ásãa^`•Ás[]È FÎ	• &^ @ æaå ÁĒĀ; [¦ c@ ¦ } ÁÔæþā[¦ } ãæ ÖÚÙ	ŒZÔPŒŒ€JÛ	V@^æe^}^å	Þ[}^	Ë	Ë	HJFGHH	ŠŒNÕPŠŒ ÜŒÞÕÒ	W}]¦[&^••^å	OE, ā; a p + ĀĒAO ®Ē Ùa p ([}āñao AĒ U}&[¦@}&@• Á; ^\ā• āāā^*• Á;[]ĒĀrī
O5jāja‡•AË Øãi@	U} &[¦@} &@• { ^\ã••Ásãa^~•Ás[] ÈÀ	• ♂^ @ ඎ*ÁЁ\$^} dæ#Óæ#ã[¦} ãæ &[æ ơЙÔÚÙ	ŒZÔPŒŒ€JŐ	V@^æe^}^å	Þ[}^	Ë	Ë	HJFGHH	ŠŒNÕPŠŒ ÜŒÞÕÒ	W}]¦[&^••^å	OE, ā; a p+ ĀĒAOē @ĀĒ Ùa p+ [}āñao+ĀĒ U}&[¦@}&@•Á;^\ā• āāā^*•Á;[]ĒĀ
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Ô[{{ `}}ãô ËĀV^¦¦^∙dãæ	Þ[¦c@¦}ÁQc^{ā[Ô^]¦^••ÁZ[¦^•c	Þ[c@ }ÁQ c^ a[ÁÔ^] ^•• Ø[^•c	ÔVVÌ H93€ÔŒ	Þ[}^	Þ[}^	Ë	Ë	HJFGHFF	ÚWÜÖŸÙ ÕŒÜÖÒÞÙ	Tæ]]^å	Ô[{{ `}} ãc ÁÉV^;;^•d ãæ4Æ Þ[¦œ;} ÁQ;æ;¦ā;¦ÁÔ^];^•• Ø[¦^•c
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natural resource planning & management

Re: Biological Resource Assessment Addendum Rare Plant Assessment and Botanical Survey

Prepared for:

City of Ukiah Department of Community Development 300 Seminary Avenue Ukiah, CA 95482

APN: 001-040-83, 157-070-01, 157-070-02, 003-190-01

Prepared by:

Becca Cosmero
Environmental Technician
Jacobszoon & Associates, Inc.
117 Cara Ave
Ukiah, CA 95482
(209) 482-6311
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07/9/2021

Survey Objectives:

Rare plant assessments and botanical surveys are conducted to maximize the likelihood of locating rare, threatened, or endangered plants and plant communities that may be present within a Study Area. Survey findings are useful in assessing the potential for significant adverse impacts on botanical resources and critical in mitigating those impacts. If special-status plant species are located during a survey, mitigation measures will be recommended to avoid or minimized damage to the species.

The Rare Plant Assessment and Botanical Survey for the City of Ukiah constitutes a seasonally appropriate floristic survey and was conducted during appropriate blooming periods for all potentially occurring rare plant species within a nine-quad scoping range of the project area. Every plant taxon encountered during the survey was identified to the taxonomic level necessary to determine rarity and listing status. Habitat requirements for special-status species and their potential to occur within the Study Area are discussed in Appendix A: Table of Potential for Special-Status Plants and Wildlife within the Study Area, of the Biological Resource Assessment.

The survey employs the methods and guidance outlined in the *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018). The Study Area referred to in this report includes areas shown in the Biological Resource Assessment Figure 2: Biological Assessment Map, Aerial.

Botanical Survey Results:

Field surveys within the Study Area were conducted on 03/30/2021 by Miles Hartnett, Staff Biologist/Botanist and Becca Cosmero, Environmental Technician. Jacobszoon and Associates Environmental Technician, Becca Cosmero conducted field surveys on 5/17/2021 and 7/9/2021. Survey protocol was based on *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018). An intuitively controlled, seasonally appropriate, floristic survey was performed, which was moderate in coverage density (60-80%) in the potential rare plant habitat areas.

A complete list of all plant species observed within the Study Area during the Botanical Survey is included in Table 1: List of Observed Taxa within the Study Area. Plants listed in Table 1 were identified using The Jepson Manual: Vascular Plants of California 2nd Edition (Baldwin et al. 2012) to the taxonomic level necessary to determine rarity. The names provided in the Rare Plant Assessment and Botanical Survey follow The Jepson Flora Project.



The Rare Plant Assessment and Botanical Survey identified a total of 96 plant taxa within the Study Area including both native and introduced species. (Table 1: List of Observed Taxa). Of the 96 species observed, none were special-status, rare, threatened, or endangered species.

Table 1: List of Observed Taxa within the Study Area

Species name	Common name
Acer macrophyllum	bigleaf maple
Acmispon brachycarpus	Short-podded lotus
Adenostoma fasciculatum	chamise
Adiantum jordanii	maiden hair fern
Aesculus californica	California buckeye
Arbutus menziesii	Pacific madrone
Arctostaphylos canescens ssp. canescens	hoary manzanita
Arctostaphylos glandulosa	Eastwood manzanita
Arctostaphylos glandulosa ssp. glandulosa	Eastwood manzanita
Arctostaphylos glauca	Bigberry manzanita
Arctostaphylos manzanita ssp. manzanita	common manzanita
Arctostaphylos patula	greenleaf manzanita
Baccharis pilularis	coyote bush
Calochortus tolmiei	pussy ears
Cardamine californica	milk maids
Cardamine hirsuta	hairy bittercress
Cardamine oligosperma	Idaho bittercress
Ceanothus cuneatus var. cuneatus	buckbrush
Ceanothus foliosus var. foliosus	wavyleaf ceanothus
Centaurea melitensis	Maltese star-thistle
Cerastium glomeratum	mouseear chickweed
Cercocarpus betuloides	mountain mahogany
Chlorogalum pomeridianum	Wavy leaf soaproot
Claytonia perfoliata	miner's lettuce
Collomia heterophylla	variable leaf collomia
Crocanthemum scoparium	peak rushrose
Cynoglossum grande	Pacific houndstongue
Cynosurus echinatus	bristly dogtail
Delphinium nudicaule	red larkspur
Dichelostemma capitatum	blue dicks
Dichelostemma ida-maia	firecracker flower
Diplacus aurantiacus	sticky monkeyflower
Dittrichia graveolens	stinkwort



Species name	Common name
Dryopteris arguta	California wood fern
Elymus glaucus	blue wild rye
Eriophyllum lanatum	common woolly sunflower
Erythronium californicum	California fawn lily
Euphorbia oblongata	eggleaf spurge
Festuca arundinacea	tall fescue
Festuca microstachys	small fescue
Festuca perennis	Italian rye
Festuca temulenta	darnel
Galium aparine	cleavers
Galium bolanderi	Bolander's bedstraw
Gastridium phleoides	nit grass
Genista monspessulana	french broom
Geranium molle	woodland geranium
Hesperolinon	dwarf-flax
Heteromeles arbutifolia	toyon
Hieracium spp	hawkweed
Holodiscus discolor	oceanspray
Hordeum brachyantherum	common barley
Hypericum concinnum	goldwire
Iris macrosiphon	ground iris
Lithophragma affine	common woodland star
Lonicera hispidula	pink honeysuckle
Luzula comosa	hairy wood rush
Lysimachia latifolia	Pacific star flower
Madia gracilis	grassy tarweed
Marrubium vulgare	white horehound
Micranthes californica	Greene's saxifrage
Micropus californicus	Q tips
Nemophila heterophylla	small baby blue eyes
Notholithocarpus densiflorus	tanoak
Pedicularis densiflora	warrior's plume
Pentagramma triangularis	goldenback fern
Phacelia imbricata	mountain phacelia
Pinus attenuata	knobcone pine
Plagiobothrys tenellus	slender popcorn flower
Polygala californica	California milkwort
Polypodium glycyrrhiza	licorice fern
Polystichum munitum	western sword fern
Primula hendersonii	Henderson's shooting star
Pseudotsuga menziesii	Douglas-fir



Species name	Common name
Pteridium aquilinum var. pubescens	bracken fern
Quercus berberidifolia	scrub oak
Quercus garryana	Oregon white oak
Quercus kelloggii	California black oak
Quercus parvula var. shrevei	Shreve oak
Quercus wislizeni var. wislizeni	interior live oak
Ranunculus occidentalis	western buttercup
Rosa gymnocarpa	wood rose
Sanicula crassicaulis	Pacific sanicle
Scutellaria tuberosa	blue skullcap
Sequoia sempervirens	redwood
Sidalcea diploscypha	fringed checkerbloom
Symphoricarpos albus	snowberry
Tauschia spp.	umbrellawort
Torreya californica	California nutmeg
Toxicodendron diversilobum	poison oak
Trifolium hirtum	rose clover
Trifolium microcephalum	small headed clover
Umbellularia californica	bay laurel
Vicia americana	American vetch
Whipplea modesta	modesty
Wyethia glabra	smooth mule ears

No special status plant species were observed during the Rare Plant Assessment and Botanical Survey.

Recommendations:

No special status plant species were observed during the Rare Plant Assessment and Botanical Survey.

There are no recommendations for special status plant species at this time.



Report Author:

Becca Cosmero

Becca Cosmero is an environmental technician at Jacobszoon and Associates Inc. with three years of professional experience in fisheries management, biological monitoring, and ecological restoration. She received a Bachelor's of Science in Biology with an emphasis in Ecology and Evolutionary Studies from the University of California, Merced in 2018. Prior to working with Jacobszoon and Associates Inc., Ms. Cosmero has worked with FISHBIO to monitor and study predator populations threatening salmonids within the Stanislaus and Tuolumne Rivers, Sequoia Ecological Consulting as an on-call biologist conducting compliance monitoring, and Grassroots Ecology as an AmeriCorps intern. She received a Rare Plant and Vegetation Sampling certificate from the California Native Plant Society in March 2019 and holds a Rare Plant Voucher Collecting Permit through CDFW (No. 2081 a-21-076-V).

Sincerely,

Becca Cosmero (she/her)

Environmental Technician Jacobszoon & Associates, Inc.



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Notices were sent to the following Tribes on December 15, 2020:

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On January 14, 2021, notices were sent to the following additional tribes per NAHC's recommendation:

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(a) In reviewing draft EIRs, persons and public agencies should focus on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated. Comments are most helpful when they suggest additional specific alternatives or mitigation measures that would provide better ways to avoid or mitigate the significant environmental effects. At the same time, reviewers should be aware that the adequacy of an EIR is determined in terms of what is reasonably feasible, in light of factors such as the magnitude of the project at issue, the severity of its likely environmental impacts, and the geographic scope of the project. CEQA does not require a lead agency to conduct every test or perform all research, study, and experimentation recommended or demanded by commentors. When responding to comments, lead agencies need only respond to significant environmental issues and do not need to provide all information requested by reviewers, as long as a good faith effort at full disclosure is made in the EIRIA

(b) In reviewing negative declarations, persons and public agencies should focus on the proposed finding that the project will not have a significant effect on the environment. If persons and public agencies believe that the project may have a significant effect, they should: (1) Identify the specific effect, (2) Explain why they believe the effect would occur, and (3) Explain why they believe the effect would be significant. (c) Reviewers should explain the basis for their comments, and should submit data or references offering facts, reasonable assumptions based on facts, or expert opinion supported by facts in support of the comments. Pursuant to Section 15064, an effect shall not be considered significant in the absence of substantial evidence

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Development Parcels-ÁV@Á[¦ã ā æÁÚ¦[b &ÁÖ^• & ā aā } Á ā & a aÁ ö^ç^[] { ^} A OE | ^^{ ^} oÁq Áæ||[ÁP` ||ÁÚ||] ^ | cað • Áq Áāj å ãç ãà `æ|| Á• ^ ||Á• ^ ç^} ÁÖ^ ç^ ||] { ^} oÁÚæb&^ |• Áq ¦Á å^c^|[]{ ^}o4;-Á;}^Á;}^Á;ā*|^Ëæ;āîÁ@;{ ^Á@;àåÁo@;Á;[••ãaāããcÁ;¦Á;}^ÁOB&^••[¦^ÁÖ, ^|[ā;*Á W}ãoDÁ;^¦Á;æ&&^|Á;][}Áæa}}^¢ææāi}Àæa;åÁÚ|æa;}ã;*ÁÔ[{{ã•āi}Áæa;]¦[çæaÁ;√ÁæáÁV•^ÁÚ^¦{ãoÁ;Á &[] • d`&oÁā; åãçãà`æþÁ@[{ ^• Á, ão@a; Áo@•ÁÙā; * |^ ËZæ; ãî ÁÜ^•ãa^} cãæþËPā|•ãa^ÁQÜFËPDÁUç^\|æ Á Öãrda&odÁP[, ^ç^¦ÉÁP`||ÁÚ¦[]^¦œ?>ÁãrÁ&@[[•ã;*Áq;Á'^œæã;Ác@ Á'ðt@Áq;Á•^||Áæa}åÁå^ç^|[]Á Ö^ç^|[]{ ^} œÁÚæd&^|• ÁFËHÁ; ¦ãi; Ágí Áæd; } ^¢ææãi} ÈÁV@ ÁÖ^ç^|[]{ ^} œÁÚæd&^|• Áæd^Áfi &ææ^åÁ; ão@ã; Á c@ ÁÔ[ˇ} c゚Á; -ÁT^}å[&ā;[q•Áö¦ã•àã&cā;} Á;ão@ā,Ác@ ÁN]|æ;åÁÜ^•ãå^} cãæфÉÁ €Ëæ&¦^Á;ãjã; ັ{Á ÇNÜKK. €DÁ:[}āj*Áåãidā&dÈÁÔ[}•d*&cāj}Á[-Ác@:Á•āj*|^Ëæ;āfÁ@;{^•Á,ão@ājÁc@:ÁÔ[*}c°q;Á biłāråa&cai}Á,[*|å.Áa^Áa^Éar@oÁa)å.Á,[cÁ^* ă.^Áaãa&l^cai}æl^Áa];[çædÉA}çai[}{ ^}œdÁ^ça>, ÉÁ }[¦Ás@ Áå^c^|[]{ ^} œÁ œa} åætå• ÁsI} œæã ^åÁ ão@ã Ás@ ÁÔãc œ ÁÜFËPÁ[}ã,* Áåã dætæP[_ ^c^¦ÉÁ P`||ÁÚ¦[]^¦cã\•Áā Á&@}[•ā;*ÁţÁ^``ā^Ác@ Á;ā;*|^ËæţāîÁ@}{ ^•ÁţÁà^Á&[}•d`&c^åÁţÁÜFËPÁ • cœ) åæå• Áà^ Áā, Á¸3, &¸1° åã, * Ás@{ Áā, Ás@ ÁÖ^ &|ææã, } Á, ~ÁÔ[ç^} æ) æ ÉÂÔ[} åããá, } • ÉÁæ) åÁÜ^• dã&cá, } • Á QÔÔBÜ•DÁ{¦ÁÖ^ç^|[]{ ^}œÁÚæt&^|•ÁFËHZÓQÁœååããã}}ÊÁœ¢œQ**@Á;[œÁ^`šā^åÊÁc@Á;ãããæãã}Á { ^æ ` ¦^• Á&I } cæāj ^å Á, ãc@ā Ás@ ÁQÙT ÞÖÁ[¦Á^• ãå^} cãæþÁå^ç^|[] { ^} cÁ, ā|Ásф• [Ás^Á§ &|`å^åÁ§ Á $c@A\hat{O}\hat{O}BU = E\hat{O}^c$ æ);åÁj¦^:[}^åÁq[ÁÜFËPÈÁO≣Áå^•&¦ãå^åÁājÁo@Á[¦ãtājæ)ÁÚ¦[b%&óÁÖ^•&¦ājcāj}ÊÁc@Á^{ æ£jāj*Á Ö^ç^|[]{^}œÁÚæ&^|•ÁÇËDÁ;ā|Á;[œÁà^Áå^ç^|[]^åÁ;}œāÁ;}^¢ææā[}Áæ;Á&[{]|^<^Áæ;åÁvæ&@Á ÔãC q ÁÜFËPÁ[}ã,*Áåã;dã&dĚÁ

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Prezoning EÁÚ¦^çā[ˇ•|^Áæ; å•Ás; c^}å^åÁ[¦Á;]^}Án]æ&^Ás@æÁæ;^Á[&ææ;^åÁ;ˇo•ãå^Á; Ás@ÁÔãc qÁ &č¦^}c^Á]æ&^Ás@æÁæ;^Á[&ææ;^åÁ; Ás@ÁÔãc qÁ &č¦^}cÁ]@!^Á; ÁQ;-|ˇo}&^ÁQ;UODÁ; ^!^Á;[oÁ;!][•^åÁ[¦Á;\ó;[}ā;*ÈÁP[¸^ç^¦Éàæ;^åÁ;}Á
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ÇŠOŒZÔ[DÁ@•^Á;]^}Á]æ&^Áæ;å•Áæ;^Á;![][•^åÁs[Ás^Á;\o;[}^åÁÚ`à|æ&Áæ&ājāæ;•ĒÆ[}•ã;c^}cÁ;
ão@Á@Á^{æ;ā;ā;*Á;]^}Á]æ&^Áæ;åÁæ;åÁæ;^Áæ;寿;c°¦ÁÜ/•][}•^ÁGÁs^[¸Á¦¦;Á;[¦^Ás;-[;{æ;ā;}DÉÁ

Biological Resources E/OE Á; [chá Á; ÁO)T ÞÖÁU 8c] } Á È E/Ó; [* 38æÁÜ • [* 180 Éà; cæ) 38æÁ • ` ¦ç^^ • Ásd^Á^` ` ã^åÁg Ág^Ág; } å ` &c^åÁg Áss&S; ¦åæ} &^Á, ão@ÁNÈÙÉÁZē; @Ást; åÁj ãAÁQNÙØY ÙDÁ ¦^|æaā|}Áq;Áåã-~\^}oÁ+]^&að\•oÁà|[[{ā|*Á]^|ā|å•EÁOTEÁc@Ácã|^Á;-Á&ã&`|æaā|}Á;-Ác@ÁÖ|æoÁ Ú^¦ÁNÙØYÙÁ|;[q[&[|•Á[}^Áæååããã]}ædÁ+`¦ç^^Á, æ•Á'^``ā^åÁå`¦ā;*Ác@Aà|[[{ā;*Á]^¦ā[åÁ QT æd&@ËRY|^ DDÁæd åÁæe Á, [c^åÁ§jÁÖ|æcÁQÙTÞÖÁT ãð æð æð]}ÁT^æ*\^ÁÓQUËFÉAc@àÁ*\c^^Á, [*]åÁ [8&*;|Á];|á[;Áq[Áæ);^Á*;|[*}åÁåãic;|àã];*Áæ&kãçãããN•ÁææÁc@;Á'^&[{ ^}åææã[}Á[—Ác@;ÁÓã[[*ãidÈÁ P[^c^\£Á•ã& A\Ác@Á&ã&`|æāi} Á[-Ác@ÁÖ|æÁÖ)TÞÖ£Ác@Á-ã; ædÁà[æð; æð; æðædÁ•`|c^^Á; æð; Á à[ca) 38a4Á]^8a^•ÁQ^^Ác@ ÁÓ4[[*38a4ÁÜ^•[*|8^•ÁOE•^••{ ^}cÁOEåå^}å*{ Á[¦ÁÜæ^ÁÚ|æ) cÁ OE•^••{ ^} oÁse) åÁÓ[cæ) &BædÁÚ" ¦ c^^ ÁSE &|" å^åÁse ÁOEccæ&@ ^} cÁÓFÁ; Ás@ ÁZAE æHÁÖ| æcÁÓÚT ÞÖEÐÉÁ ¦^{ [cæd£Á, |^&|] • d`&cãi}Á`¦c^^•Áse}åÁs|[¦åãiæcãi}Á,ão@ÁÔædã;|}ãæÁÖ^]æd;(^}oÁi√ÁØãi@Áse}åÁ Y ãå |ã^ ÁÇÔÖØY DÁ @d| Áå^Á^ Šã^ å ĚŤ ãã æðā } ÁT ^æ ' | ^ ÁÓQU Ë Á@d Áà^ } Á^çã ^ å Áæ Á[||[· ĚÁ Q Áæååãããå } ÊÁT ãã æã æã } ÁT ^æ ` \^ÁÓQU ËCÁ@e Áà^^} ÁSJæðãð åÁæ ÁF ||| _ • ÁG Á^} &[{] æ• ÁæJÁ •^}•ãããç^Áæ{]@ãããæ;Á•]^&ãN•ĒÁ&[}•ãrơ^}ơÁ¸ão@Á~ã;åã;*•Áã;Ác@^ÁÓã;[[*ã&æ;ÁÜ^•[`¦&^•Á OE•^••{ ^} dŽÖ^|^ & åÁo^¢oÁã Á• @ ; } Áð, Á• dã ^c@ [` * @Á [} dŹ, @A^Áæåå^åÁo^¢oÁã Á• @ ; } Áð, Á <u>~}å^¦|ã,^</u>Á;}dĚÁ

BIO-1: Special Status Plants Sensitive Trees. Full USFWS protocol level sensitive plant species surveys for Mendocino tarplant, congested headed hayfield tarplant, bristly leptosiphon, broadlobed leptosiphon, redwood lily, green monardella, white-flowered rein orchid, Mayacamas popcornflower, beaked tracyina, showy Indian clover, and oval leaved viburnum within the blooming period (generally March-August) shall be conducted prior to any ground disturbing activities to verify the presence of special status plants and identify additional mitigation if needed, to ensure that the Project will not result in a significant impact. If trees are proposed for removal, preconstruction surveys shall be conducted by a qualified biologist to identify Oregon white oak forest and woodland, as well as California bay forest and woodland habitat; removal of sensitive habitat shall be conducted in accordance with California Department of Fish and Wildlife (CDFW) regulations.

BIO-2: Red-belly newt Sensitive Amphibian Species. A qualified biologist shall survey the area prior to any groundbreaking activities to determine the presence of Red-belly newt, or other sensitive amphibian species, and identify additional avoidance measures, if needed. A qualified biologist shall be on-site for any dewatering event to address the potential for the presence of sensitive amphibian species such as foothill yellow-legged frog (Rana boylii).

Ú^¦ÁÔÔÛŒÃÕ ãa^|ā¸^•ÁÙ^&æã| }ÁFÍ €Ï Hff ÇÆÆÆ lead agency is required to recirculate a negative declaration when the document must be substantially revised after public notice of its availability has previously been given pursuant to Section 15072, but prior to its adoption. Notice of recirculation shall comply with Sections 15072 and 15073.

- (b) A "substantial revision" of the negative declaration shall mean:
 - (1) A new, avoidable significant effect is identified and mitigation measures or project revisions must be added in order to reduce the effect to insignificance, or
 - (2) The lead agency determines that the proposed mitigation measures or project revisions will not reduce potential effects to less than significance and new measures or revisions must be required.

- (c) Recirculation is not required under the following circumstances:
 - (1) Mitigation measures are replaced with equal or more effective measures pursuant to Section 15074.1.
 - (2) New project revisions are added in response to written or verbal comments on the project's effects identified in the proposed negative declaration which are not new avoidable significant effects.
 - (3) Measures or conditions of project approval are added after circulation of the negative declaration which are not required by CEQA, which do not create new significant environmental effects and are not necessary to mitigate an avoidable significant effect.
 - (4) New information is added to the negative declaration which merely clarifies, amplifies, or makes insignificant modifications to the negative declaration."

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Table 1, Comments Received on the Draft Initial Study and Mitigated Negative Declaration

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ΪÁ	R^æ)}^ÁY^c^ ÁÔ@3}}Á	TæÎÆFJÉÉG€GFÁ
ÌÁ	OEjå¦^æÁXæ&@[}Á	TæÎÁFJÉÄG€GFÁ
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FJÁ	T^}å[&ã][ÁÔ[`}c^ÁŠ[&æ‡Á OE^}&^ÁØ[¦{ææā[}Á Ô[{{ã••ã[}ÁÇŠOEØÔ[DÁ	TæÎ ÁG€ÐÃG€G FÁ
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- •Á Ôæqã[¦}ãæÁÜ^•ãå^}œãqÁÔ[å^ÊÁÙ^&qã[}ÁÜHHÏÁÇTææ^¦ãæq+Áæ)åÁÔ[}•d`&qã[}Á T^cq@;å•Á[¦ÁÒ¢¢^¦ã[¦ÁÝāå]ã^ÁÒ¢][•`¦^DbÁ
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- •Á Ôæþā[¦}ãæÁÔ[å^Á;ÁÜ^* |ææá]}•ÉÁVãd/ÁFIÉÖÖāçãāā]}ÁFĚÉÖÔ@æd;c^¦ÁiÉÁÚ`à&@æd;c^¦ÁrHÁ
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- •Á Ôæþã[¦}ãæþÕ[ç^\}{ ^}ơÓ[å^ÉÂÙ^&cā[}Ã,FFÌGÁÇX^\^ÁPæææbåÁÙ^ç^\ácÁ Z[}^•DÉA

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Õ[ç^\\} { ^} o'Ô[å^ÂJ^&A] ÅÎ HÏ Í QĐỆ DỆ Œ Œ "the decision of the commission with regard to a proposal to annex territory to a city shall be based upon the general plan and prezoning of the city. When the development purposes are not made known to the annexing city, the annexation shall be reviewed on the basis of the adopted plans and policies of the annexing city or county. A commission shall require, as a condition to annexation, that a city prezone the territory to be annexed or present evidence satisfactory to the commission that the existing development entitlements on the territory are vested or are already at build-out, and are consistent with the city's general plan. However, the commission shall not specify how, or in what manner, the territory shall be prezoned."

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7 ca a Ybh 'V@Á&[{ { ^} &\ Á\¢] \^••^• Á&[} &\\}•Á\^* æbåð] * Á¸ ðþå-ðl^ÉÁ

Á FYgdcbgY. $\hat{A}\hat{U}^{\wedge}\hat{A}$ T æ $e^{\hat{A}\hat{U}^{\bullet}}$][$e^{\hat{A}\hat{E}}$

7 ca a Ybh `V @ Á&[{{^} &` ** ^• @ Ác@æÁc@ Á; |[炒 &Áà^Át^Çã^åÁt[Á; }|^Áæ||[¸Á; }^Áå¸^|[ā,*Á;^\Á] 盎&^|Áæ} åÁ^•• #Ö^ç^|[]{^} @ÁÚæ&^|• ĚÁ

Ù { { æ tā āj * ÉÁc@ ÁÚ ! [២ & cÁ] [` |å Á¹ ^ • ` | cÁāj ÁæÁ¹ ^ å ` & cāj } Áāj Ác@ Á) ` { à ^ ! Á[-Á` } ār• Ác@ædÁæ ^ Á & ` !! ^ } d ^ ÁæH [¸ ^ å ĚÁV] å ^ ! Ár ¢ ār ēā ; å Áū] • ÉÁc@ ! ^ Áār Áj [e^ } cāæHÁE ! Á'] Áṭ ÁH Á` } ār• Áṭ Áà ^ Á å^ ç^ | [] ^ å Áa ^ Áā @ÈÁQÁ ÆÚ ! [២ & cÁār Áæ]] ! [ç ^ å ÉÁs@ár Áj ` { à ^ ! Á¸ [` | å Áa ^ Ár å' & ^ å Áṭ ÁæÁ æætā ` { Á [-Á] Áṭ ÁFI Á` } ār• ÈÁ

7CAA9BH @ HH9F (. '5 @@9 '81;; 5B'Á

7 ca a Ybh 'V@Á&[{ { ^} &\ Á\¢] \^••^• Á[]][•ãá]}Á[Á\@ÁÚ|[b\&ÆÁ

7 ca a YbhÁ/@Á&[{ { ^} c^\Á^¢] \^••^•Á&[} &^\;}•Á^*æåå] * Átæ-æÁ[}ÁÜ^å, [[åÁŒ;^}`^ÈÁ

7 ca a YbhÁv@Á&[{{^}♂\Árœæ^•ÁœæÁ¸ãå|ã^Ár¢ãrœÁ¸Áã,Áo@ÁæÁ~æÁæ¸åÁoœæÁå^ç^|[]{^}ơÁ¸[ˇ|åÁå^•d[^ÁœæÁæ¸åÁœæÁæ¸åÁœæÁæ¸åÁœæÁæ¸åÁæ¸åÉ]{ ^}ơ\Árċœ ÁrœæÁæ¸Áæ¸åÁæ¸áĸã¸åå|ã^Áæ¸ååå;ã^Áæ¸æ∱:^åÁ];ã;Áí¸Áå°ç^|[]{^}œÁ

$$\begin{split} & \textbf{FYgdcbgY.} \triangle \textbf{E} \hat{\textbf{A}} \ \ [\ c^{a} \hat{\textbf{A}} \ \ \ \hat{\textbf{A}} \$$

 $FYgdcbgY. \hat{O}[\} \bullet \tilde{a} \text{ ch} \} \circ \hat{A} \text{ accept} \wedge \hat{A} \text{ a$

V@ÁÔãcÂ, æÁæ] | [æ&@åÁà^ÁT¦ÉP*||Áæec\Ác@ÁÔãcqÁæecÁ}• *&&^• ~ |Át¦æ) cÁæ] | [ä&ææã] } Á
æ) åÆa^*æ, Æ[Á[[\ÁææA;c@¦Á[[*cā])• Æ[Áæ&* *ãã]*ÁæA;[]^!c*ÉV[Æ[{]|^c*ÁæÆ* *ããã]}ÉA
c@ÁÔãcÂ, ã|Ár) cº¦Æ[(ÁæÁÚ![]^!c*ÁÖ¢&@æ)*^Ææ, åÄÖ^ç^|[]{ ^}cÁŒ*!^^{ ^}cÁÇÖ^ç^|[]{ ^}cÁ
CE!^^{ ^}cA@Áæ*
Ac@ÁP*||ÁÚ![]^!cÃ*•Á**
Ac@ÁP*||ÁÚ![]^!cÃ*•Á**
Ac@Áæ*
Ac@Á

 $V@\acute{A}[\] \cap \acute{A}[\] - \acute{A}[\] - \acute{A}c@\acute{A}] + [\ b \& \& \acute{A}c@ \& \acute{A}] & \mathring{A} \wedge \bullet \acute{A}c@\acute{A}] + [\ c \acute{A}c@\acute{A}] + [\ f \acute{A}c@\acute{A}) + [\ f \acute{A}c@\acute{A}] + [\ f \acute{A}c@\acute{A}) + [\ f \acute{A}c@\acute{A}c@\acute{A}) + [\ f \acute{A}c@\acute{A}c$

7 ca a YbhÁv@Á&[{ { ^} &\ Á^¢] \^••Á&[} &\\] •Á^*æåå, *Á, åå-å^ÉA

F YgdcbgY. ÂÛ^^ÁT æ c^\ ÁÜ^•] [} •^ÁF"

7 ca a YbhÁ/@Á&[{{^}♂\Á\!|}^|`•|^Á\cæc^•Ás@æcÁs@áÁ;![b^&cÁcæc♂åÁ;}ÁO其¦āÁfîÉGECFÁæ;åÁs@Á @{^[¸}^!•Á;}ÁÜ^å¸[[åÁOç^}`^ɸ@Á,[ˇ|åÁs^Á;æt|!|^Áā[]æ&c³åɸ^!^Áãç^}Á¸Iä¸c°åÁ¸[œ&^Á;Æ ãÁ;}ÁTæÁFHÉGECFÉÁ,^æ¦|^ÁæÁ;[}c@æcぐ!Ás@áÁ;![&^••Á@æÁcæc♂åÈÁ

F YgdcbgY. $\lor @ AO \ ac A \ ac A \ | \ ac A \ | \ ac A \$

- •Á Ú¦[çãa^åÁq[Á;|[]^¦c°Á; }^!•Á ão@AÁH€€Á^^oÁ, Ás@Á;|[Þ/86Á;æ&^|•ÉææÁ, ^||ÁææÁæ*^}8法Á
 æ)åÁa^]æd(^}œÁ, ão@Áò;ãåå&cā;}Á;¦ÁB;æ'¦^•oÁ;ç^¦Áo@Á;![b/86Á;}ÁOE;¦ÄÁFÎÉĞG€GFÉÁR°}^Á
 FÉÄG€GFÁæ;åÁOE**•oÆFHÉÄG€GFLÁ
- •Á Ú¦[çãå^åÁ[Á(^{à^\•Á; Ác@Á]`à|æðÆæ*^}&&•ÉÆæ)åÁā; ơ\^•ơåÁ]ædæð•Á, @Á*à{ãơ^åÁ; lãæ^åÁ; lãæ^}Á&[{ ^}œÁ;}Ác@ÁÖ¦æœÁOÙTÞÖÁå`lā;*Ác@Á;`à|æðÁ^çæ³,Á;^lā;åÁ;}ÁCE*`•ơÆHÊÄ GEGFLÁ
- •Á Ú à jã @ å ÁB, Ác@ ÁN ãæ@ÁÖæðir ÁRT ` ;} æþÁ;} ÁOE; ; ðjÁG! ÉFGEGFÉFR ` } ^Ä. ÉFGEGFÁÐ; å ÁCE * ` ÓÁF! ÉÁ GEGFLÁMÁ
- •Á Ú[•c^åÁ[}Áx@ÁÚ|[b/8cÁ;ãc^Á[}ÁTæÁHÊĞGEGFÉÄR]} ÅÆE**•cÁFFLÁ
- •Á ÚÍ ¢ å ÁsæÁs@ ÁÔãc ã ÁÔ \$ c \$ ÁC | æ ÁSæ DÁ GÁQ * | Á | ā | Áf Ás@ Á * à | ã Á@ æ ā * LÁ
- $\bullet \acute{A} \hspace{0.2cm} \vdash \hspace{0.2cm} [\hspace{0.2cm} ca\& \' A i \hspace{0.2cm} |\hspace{0.2cm} \dot{A} i \hspace{0.2cm} |\hspace{0.2cm} \dot{$
 - •Á Ú[•ơ°åÁ;}Ác@ ÁÔãô Á; ÁNN ã±ĐÁ; ^à•ã°Á;}ÁOḤ¦āÁFÎ ÉÆŒŒFÁs; åÁOĒ**•oÁFĨ ÉÆŒŒFLÁ
 - •Á Ò(æā)^åÁq[ÁÚ|æ)}ā,*ÁÔ[{{ã•ā[}^¦•Áæ),åÁÔã;ÁÔ[`}&ā{(^{à^¦•Áq}),ÁOE|¦ā/ÁrÎÉÉG€GFÁæ),åÁ OE*`•oÁFHÉG€GFLÁ
 - •Á Pæ) åËå^|ãç^¦^åÁq[Áx+|Á^•ãå^}&^•ÁQ]Áx±ååããq]}Áq[Áx+)åÁà^^[}åÁx@^Á+1€€Ё[[cÁ^˘˘ã^{ ^}d^{ ^}d^{ }]}ÁQ AX+1€€Ё[[cÁ^˘˘ã^{ ^}d^{ }]}ÁQ AX+1€€Ё[[cÁ^ȸã^{ }]AQ AX+1€€Ё[[cÁ^ȸã^{ }]AQ AX+1€€€][aÁ CQ AX+16
7 CAA9BH @9 HH9 F'). 'K YghYfb'<]``g':]fY'GUZY'7 ci bW['

7 ca a Ybh'V@Á&[{{^}&\'Á^^\^}}&^•ÁæÁÖ^&^{à^\ÁFFÉŒŒ€ÁW ãæ@ÁÖæāj^ÁR[`\}æáj^¸•ÁædæB\^Á\\^*æååj*Ác@Áå[}ææáj}Áj. Ác@ÁÖ[}ææáj}ÁÚæb&\|ÁtÁc@ÁÔãcÁà^ÁT\\ÈP`||ÁæþåáÁrææ^•Ác@æÁárÁaãaÁ;[cÁ{^}cāj}Ár@Áæš`ãæáj}Ár, Ác@ÁÖ[}ææáj}Ár, Ác@Á^{æájāj*Ár, []]•^åÁ}åáA\}å¢\Ác@ÁÚ|[b^&dÁ

FYgdcbgY. `Ù^^Á'^•][}•^Áq ÁÔ[{ { ^}œ^\'ÁI Á'^*æ\åāj*Ác@\ÁÖ[}æaāj} ÁÚæ\&^|Áæ) åÁ ^ç[|`aī} Ár Áœ\ÁÚ|[][•^å\ÁÚ|[b\&dÈÁ

7 ca a YbhÁv@Á&[{ { ^} c^\Árcæc^•Ác@æÁ;}ÁOE|¦ÃÁFÎÊÓ€CFÉÁc@ÁÞ[cã&^Á;ÁQ;c^}cÁ;æÁ^)cÁ[ÁæÁ^¸Á Ü^å,[[åÁOEç^}`^Áæ)åÁÙæ)ÁRæ&Ä;cæÁÖ¦ãç^Á;|[]^\cÁ;}^\•ÈÁ

FYgdcbgY. `U^^Á^•][}•^Á[ÁÔ[{{^}@Š^œ^\ÁÁÁ^*æ¦åã;*Á;[æ&ã;*ÈÁ

FYgdcbgY. `V@ \^Ádd^Á\ æ) ^Á&ã-^\^} cÁ æê •Á[Á, \^•^\ç^Áæ) åÁæ Á[]^} Á] æ&^ÈOĒÁ, [c°åÁ\$) Á
Tæ c°\ÁÜ^•] [} •^ÁGÉ&@ÁÚ|[b/8cÁ, [] [•^•Á[Á, \^: [] ^Ác@Á) cā^Á. I €Áæ&\^•Á[¼,]^} Á] æ&^Á
æ ÁÁÚØHÈQAÁæ&&[¦åæ) &^Á, ãc@Áœ ÁÕ[ç^\; { ^} cÁÖ[å^ÉA, æ&\|•Á\$, &|`å^åÁ\$, Ác@Á, \^: [] ^Áææ) } [cÁ
à^Á^: [] ^åÁ[¦Áæ4, ^\á, āá, Ác, [Á^æ• Áæe*\Áæå[] cā, ÈÁQÁæååããā, ÈÁà^&æ* •^Ác@Á, æ&\|•Á, ā|Á
à^Á; å^\ÁÔãc Á, } ^\i—@] ÊÁc@ÁÔāc Á, ā|Áœæ, Ás[} d[|Á;ç^\Ác@Á.•^Á, Ác@Á, æ&\|•ÈV@ÁÔāc e, Á
|[] * Ēc\|{ Á*[æ†Á-[¦Ác@Á]æ&\|•Áā, &|`å^Á|, •ãæ\]æ&\|•Áā, &|`å^Á|] ^\é]æ&^Áæ) åÁå[Á][cÁā, &|`å^Á|, •ãæ^] cãæḥÁ
å^ç^|[] { ^} dÈ

 $7 \text{ ca a Ybh \'AV @ \'AS[{ { ^} c' \acute{ae} \setminus

7 ca a YbhÁV@Á&[{ { ^} c^!Á• cæc^•Á%a^āÁÖæçã·qŽáÁ!^•][}•^•Áq ÁY PØÙÔÁˇ ^•cã[}•Áq ÁT ¦ÉÁ
\`Ùæ)*ãæ&[{ [Á^*æ\åā]*ÁœÁPˇ||ÁÚ|[]^!æ?•ÁŠā[ãc^åÁÖ^ç^|[]{ ^} cÁQĒ!^^{ ^} cÁg &|ˇå^åÁæÁ ˇ ^•cã[}Á
[]}Á æc^!Á^•[ˇ|&^•ÉĀT ¦ÉÖæçã·Á•cæc^åÉ%6 c@áÁ]![b/&cá] ![b/&cá] ![c/&c] &|¸á|; [c/&c] &|Á|; [c/&c] &|A|; [

FYgdcbgYkŔOBX ~ ã ãã } Á, Á@ æå, æc^\Á,\[]^\can^A\$ Ác@ Áv ^• c^\} ÁP ā|• Á, Ác@ ÁN, ãæ@ÁXæ|^^Á]\[çãa^• Á•[~\&^Á, æc^\ÁÇ@ æå, æc^\DÁ]\[c^8cā]} Áà^8æ* •^Á•^8X \ā * Ác@•^Á]\[]^\can• Á, ā|Á]\[çãa^Á,\+^•^\çæa]} Á, Á@ æå, æc^\Á,\[]^\can• Á\$, Ác@ Áv ^• c^\} ÁP ā|• Ác@æA, ā|Á@|] ÁN}• `\^Ác@æA } æɛ` læḥÁ` } [~Áæ) åÆ; [` } å¸ ææ^ lÁ^&@æ!* ^Á; ææc^ l} • Á¸ āļÁ&[} c⏠` ^Æ\$, Á¸^!] ^c` ãc` ÈÁÓ^ } ^~ãæ Á¸ āļÁ

⏠&ļ` å^Á¸ l^•^!ç⏠* Áœ Á&` l!^} cÁ@ å! [|[* ^Á¸ Áœ Ár ^• c^ l} Ár ā]• Á¸ ææ@æd ^Áæá; æþ lÁå lãç^ lÁ¡ lÁ

c@ Á^&@æ!* ⏠*Á¸ Áw) ãæ@æxæ|^^ cø Áæ č ã^ lÈÁÚ!^•^!ç⏠*Áæ•^Á¸ í]] ^ l cæ)• Á¸ āļÁè¸ • ` !^Ás@ædÁæ !^Á

ã Á¸ [Áæåç^!•^Ás@æð¸ * ^Áq Ác@•^Á⏠] [l cæ) cÁ^•[` l&^• Áæ) åÁæ Á&[}•ã c^ } cÁ¸ ãææÁæ Á¸ āļÁ¸ l

•^&c⏠} ÁrÍ Á¸ Áæ@ÁUcææ^Á¸ ÁÖæþā[l } ãææ ÁG€G€Ár ææ^ lÁÜ^• āæ^ } &^ÁÚ[l cf¸ |⏠Áş Ác@ædÁæ¸ āļÁ¸ al, Á¸ aæ^ lÁ¸ aæ^ lÁ¸ ææ^ lÁ` æð¸ Áæ¸ åÁ*]] | *HÌÁÁ

F YgdcbgY. `Ù^^ÁT æ ơ\ÁÜ^•][}•^ÁFÁæ) åÁÔ[{ { ^} œÁŠ^œ^¦ÁJÁ'^* æ¦å∄,*Á¸ ãå⊸ã^Áæ) åÁœ) Å • œæå^åÁ; ^|Æå¦^æèÈÁ

7CAA9BH @9HH9F *. 7<F=GK5HH

7 ca a Ybh ` V @ Á&[{ { ^} c^! Áæ• \ • ÁãÁc@ Áæ)}^¢ææð[} Å^` `ã^• ÁæÁcæ¢Ë• @ædā]* Áæ± |^^{ ^} có, ão@Ác@ Á Ô[`} cî Áj-ÁT^}å[&ã][ÉAæ)å ÆÁÁ[EÁ; @æcÁæ&cã]}• Á@æç^Áa^^} Áæ±^} Ásc Áo@ ÁÔãc Ág Á^&`!^Áæ) Áæ±!^^{ ^} cĚ

FYgdcbgY.ÁV@ÁÖ^ç^[] { ^} cÁÚæ&\|•Áā, &|` å^åÁā, Ác@Á[!ātā,æÁ]!^|ātā,æÁ]!^|ātā,æÁŠ[cÁŠā,^Á
Cābŏ•ɑ{ ^} cÁ¸![][•^åÁt[Áà^Á]!^:[] ^åÁÚā,*|^ËØæṭā,ÂÜ^•ãa^} cãæ‡ËPāļ•ãa^ÁUç^!|æÁÖã dã&A
@æç^Áà^^} Áæå^` *æ¢|^Áa ā^åÁæ)åÁå^•āt} ^åÁş Áæ&&[!åæ) &^Á¸ão@Ác@ÁPāļ•ãa^ÁUç^!|æÁÖã dã&A
!^* |æāt] •ÈÚV^^ÁÜ^•][] •^Át[ÁÔ[{ { ^} o ÁOtcæ&@ ^} cÁOtÁ¸@æ@Áā, &|`å^•ÁæÁt]][*!æj @®æÁÁ
{ æj Áæ)åÁc@Áæç^!æ*^Á•|[] ^Át[-Ác@ÁÖ^ç^|[] { ^} cÁÚæ&\|Áæb^æ£Ãj Áæ&&[!åæ) &^Á¸ão@Áo@Á
Pāļ•ãa^ÁUç^!|æÁÖã dã&AÁ|[cÁ•ã^Á!^`*ā^{ } o ÈÓOēÁ; [c^åÁæà[ç^Áā, Ác@ÁÜ^çã āt] •Áæ) åÁ
Ô|æãã&ææā] }•Á^&&ā] ÉÓo@Áā;æÁ^•`|cā]*Á&[}-ā*'|æāt] Át æÁçæ,Êáò cÁc@Á; { à^!Á;-Á;æ&\|•Á

• `àlo & OÁc@ • ^ Á; æk ^ |• Át[Á Y đá | æ} åÁN | àæ) ÁQ & | -æ& ^ Á^ ` ă^ { ^ } æ• ÑÁU^ | @æ] • Át; &| `å^ ÁæÁs^ } ^ -ãÓ. [} ^ Á (Á) æ Á [| Áç^* ^ cææð; A (æ) æ* ^ { ^ } oÁæ) åÁð ^ Áj | [& & Cái; } Á; @ð& @Áæ Á ` ão ^ Ád ã-^ | ^ } oÁ. | [{ Ác@ Á | àæ) Á] æ& ^ |• Á; -Ás@ ÁÔ ão ÈÁ

FYgdcbgY. 'Ù^^ÁT æ c^\'ÁÜ^•] [} •^ÁFÈ'

7CAA9BH @ HH9F +. > 95BB9 K 9HN9@7<=BB

7 ca a Ybh 'V@Á&[{{^} &\ Á^¢] \^••^•Á&[}&^\Á&[}•Á^* ædåð;*Á¸ ðpå-ði^Áæ\ É&@Á;![b/&ó\à^ð;*Á[&ææ^åÁ
¸ ãoឿ Áo@Á/ ðpå|æð;åËWàæð;ÁQ;&^¦æ&^Áæb^æð;^|Áæ Á&[{{^} & Á^* ædåð;*Áo@Á @æå^åÁ`^|Áæ¦^æ\Á
coææÁæ^Áæb•[Á^¢] \^••^åÁ§Á;co@¦Á&]{{ ^} of\co^!•ÉÁ

FYgdcbgY. Ú|^æ^Á^~\!Ág ÁT æ c^!ÁÜ^•][]•^ÁFÁ^|æe^åÁg Á āå-ā^Ág]} &^!}•ÈÁ

$$\begin{split} & \textbf{FYgdcbgYK} \& \& \triangle \hat{\Omega} \hat{\textbf{a}} \hat{\textbf{c}} \hat{\textbf{c}} \hat{\textbf{c}} \hat{\textbf{c}} \hat{\textbf{c}} \hat{\textbf{c}} \hat{\textbf{c}} \hat{\textbf{c}} \hat{\textbf{c}} \hat{\textbf{c}}} \hat{\textbf{c}} \hat{\textbf{c}} \hat{\textbf{c}} \hat{\textbf{c}} \hat{\textbf{c}} \hat{\textbf{c}} \hat{\textbf{c}} \hat{\textbf{c}} \hat{\textbf{c}} \hat{\textbf{c}}} \hat{\textbf{c}} \hat{$$

7CAA9BH@HH9F',.'5B8F95'J57<CB'

FYgdcbgY.ÁV@ÁÚ¦[២&ó+ãro;DÁã Áæ&&>••^åÁçãæÁæÁæ**áÁj¦ãçææ*Á[æåÁææÁc@Ác*;{ ã, `•Á; Á Ü^å, [[åÁŒ;^) `^Áæ; åÁ;[Á] `à|æ¾á; æ\å; *ÁãÁj![][•^åÆÁ; @ÁÚ![២&óÅ;[oÁj![][•^ÁæÁ] `à|æ¾á; æ\ÊÄ;[¦Áå[^•Áãó];[][•^ÁæÁ] `à|æÁæ&&>••Át[Ác@Át]^} A; [] *Aå[^•ÁæÁ; Áæ; Á; Áæ][, Á; `à|æÁæ&&>••Át[Ác@Át]^} A; Á*]æ&^Áæ; å•ÁæÆÁc@;Á cã, ^ÈÁÁ

7 ca a YbhÁV@Á&[{ { ^} c^\Áæ\•Á` ^• cā[}•Á\^* æ\åä¸*Á] |[][•^åÁæ&&^••Áã[] |[ç^{ ^} c^ Aæ)åÁ |^` ã^{ ^} cā[, ^] c^ Aæ)åÁ |^` ã^{ ^} cā[, ^] c^ Aæ] áÁ |^` ã^{ ^} cā[, ^] c^ Aæ] áÁ |^` ã^{ ^} cā[, ^] c^ Aæ] áAæ}

F Ygdc bg YkÂÛ^^ÁT æ cº\ÁÜ^•][}•^ÁFÈÁ

7 ca a Ybh `V@ Á&[{ { ^} &\ Á\!|[} ^[`•|^ Á\ cæe^• Ás@æsÁ@ ÁÔāc Æ Á; æ ð; * Á; ¦Ás@ Á\¢c^}•ā;} Æ, -Á cājāzð• Á
æ) å Áæ•\• Æ, A@ Á&o, A&o, A@ (E`

FYgdcbgY. `Ù^^Á^•][}•^Á[ÁÔ[{ { ^} o/S^cc^\Ái EÁ

7 ca a YbhÁ/@Á&[{ { ^} c^\Áæ•\•Á, @Áo@ÁQ•ãå^ÁÔ[}•^\çææā[}Á,æ\&^|•Á, [ˇ|åÁ, [óÁà^ÁæÁ,ækó4,æÁó@Á ÔãcÁÔ[ˇ}&āAÁ^•[|ˇcā[}Á,\Áæ&cā[}Á;Á,\^•^\ç^Ác@{Áæ•Á;]^}Án]æ&^ÈÁ

`FYgdcbgY.`Ù^^ÁTæec\¦ÁÜ^∙][}•^ÁGÁæ)åÁ^^•][}•^Á[ÁÔ[{{^}}cÆ\cc\¦ÁİÈ

7 ca a Ybh 'V@Á&[{ { ^} &\ Á^¢] \^••^åÁ&[} &^\}•Á^*æååð, *Á, ðåå-ðå^È

F Ygdc bgY. `Ù^^ÁT æ ♂¦ÁÜ^•][}•^ÁFÉÁ

7CAA9BH @ HH9F - . `A]WY UY `A UmbUfX`

7 ca a YbhÁ/@Á&[{ { ^} ♂\Árcæc^•Ás@æÁ@Á, æÁs@ÁÔæÁØã^ÁÓæææÁã}}ÁÔæð~Á¦[{ ÁÞ[ç^{ à^¦ÁG€F€Á d¸ÁÖ^&^{ à^¦ÁG€G€Áæ}åÁ, æÁ;*•)][}•ãa|^Á-{¦Á* ^|Á'^å* &æã|}Á^~-{¦o Áā, Ác@ÁY ^• ♂¦}ÁÞā|•ÉÁV@Á &[{ { ^} ♂\Á; | çãa^•Áæ)Á;ç^¦çãs¸Á;Áā,-{¦{ ææã;}Á^|ææã,*Á[Á;æoÁ*^|Á;æðæ*^{ ^}oÁ;!æææð.*•Áæ)åÁ ^¢]!^••^•Á*]][¦óÁ;!Ás@Á;![b/8dÆÁ

FYgdcbgY.ÁV@āÁ&[{ { ^} cÁāÁ}[chá]cháa) åÁãÁ Áã Aã Aã Áã Áà ÁÔ ÁÓ Á] `à|3&Á\^&[¦åÁ[¦ÁÚ|æ)}ã,*Á Ô[{ { ã•ã[}Áæ) åÁÔãc ÁÔ[`}&ãÁ&[}•ãå^¦æã[}ÁÁ

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7 ca a Ybh ˙ V@ Á&[{ { ^} c^! Á^¢] !^••^• Á&[} &^!}• Á!^* ædåðj * Á¸ ðjå-ði^ Ác@ædÁæd^ Áðj &|ˇ å^å Áðj Á[c@ !Á &[{ { ^} c^!^ EÁ

Á FYgdcbgY. Ù^^ÁTæơ\ÁÜ^•][}•^ÁFÈ

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7 ca a Ybh V @ Á&[{ \^} c\ Á\ c] \^••^• Á&[} &\ \| \ A\ \| \ \ \ A\ \| \ \ A\ \| \ \ A\ \| \ \ A\ \| \ \ A\ \| \ \ A\ \| \ \ \ A\ \| \ \ A\ \| \ \ A\ \| \ \ A\ \| \ \ A\ \| \ \ A\ \| \ \ \ A\ \| \ \ A\ \| \ \ A\ \| \ \ A\ \| \ \ A\ \| \ \ A\ \| \ \ A\ \| \ \ A\ \| \ \ A\ \| \ \ A\ \| \ \ A\ \| \ \ A\ \| \ \ A\ \| \ \ A\ \| \ \ A\ \| \ \ A\ \| \ \ A\ \| \ \ A\ \| \ \ A\ \| \ \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \ A\ \| \\ A\ \| \
7 ca a Ybh 'V @ Á&[{ { ^} c^\ Á^¢] \^••^• Á&[} &^\} • Ás@æ Ás@ ÁÖ^ç^|[] { ^} cÁÚæ &^|• Áæ^ Áæålæ&^} cÁ[ÁæÁ
•{ æ|Á&æ}^[} Ás@æ Ácæ] • Áå* • cÁæ} å Á*{ [\^ÈÉV @ Á&[{ { ^} c^\ Áæ}\• Á @æ Á^* (ææÃ) • Á ææÃ • Á£ ¼à* \} ∄* Á; Á
c@ Á[, ^\ Á^|^çææã} }• Á; -Áæ) }^ c^å Á¸![] ^\cæ^ Áa^Áæ) å Á¸ @æÁ¸ ā|Áa^Áå[} ^Át[Á^} -[\&^Á*] ^^å Á¸ā æ• Á; Á
å^&\^æ•^ Áå* • dĚ\

7 ca a Ybh`V@Á&[{ { ^} &\ f^¢] \^••^• Á&[} &^\}•Á\^* ædåð] * Ádæ-æAÁ[} ÁÜ^å¸ [[åÁŒç^}` ^Áæ)åÁæ)åÁæ)Å][c^} cædÁ[¦Áð,&\^æ•^åÁ,[ã~^Á;[{ Áç^@&\^•Ádæç^|ð] * Á]ÁæAÉ

FYgdcbgY. O Á}[c^åÁã,ÁÙ^&aã,}ÁÍÈïÉÁV¦a;)•][¦cæaã,}ÉÁ[-Ác@ÁOÙTÞÖÉÁã,]æ&c•Ád,Áda;•][¦cæaã,}ÉÁ[-Ác@ÁOÙTÞÖÉÁã,]æ&c•Ád,Áda;•][¦cæaã,}Áa;åÁdæ-æÁ,ãáÁa;åÁà;åÉÀ

Ùã[ā[æd|^£ÃN|[ã=^Áã[]æ&o=Áæe=•[&ãaæe^åÁ,ãao@Ádæ-ã&Á,[`|åÁà^Á&[}=ãa^¦^åÁo^{{}[]¦æd-Âd*¦ā]*Á 8[]•dˇ8cā[]ÈÁN][]Áˇcˇ¦^Á8[]•dˇ8cā[]Á[-Á-ā]*|^Ëæ[ā[ÁQ]{ ^•ÊÁ-[ˇ¦&^•Á;-Á-[ã-^Á,[ã-^Á,[š-A-Â--8[}•ãrơ\}ơĂ, ão@Á[ơ@\Á}[ãr^Á•[ˇ\&^•Áơ]ã&æþÁ[-Á\^•ãā^}cãæþÁˇ•^•ÁợÈÈÃ{ ^&@eb}ã&æþÁ ^``ā]{ ^}dÊå[*•Đ]^@ÊÁæ)å•&æ]ā]*Áæ&ããããã•ÊÉ&æ•Á,æ\ā]*ÊÁv&ÈÈÁOãååãã]}æ|îÊÉæ•Á,[c^åÁ§,Á Ù^&a; A HEHÊÞ[ā^Ê; A0@ÁQ)TÞÖÁc@ÁÔãCqÁÞ[ã^ÁU¦å; A0 BAÁÇÖāçā; A1 BÂÓ@e; A1 AFÊÁ OEca&|^ÁÎDÁ^•caaà|ã@•Áaa;àã^}cÁàæ•^Á}[ã^Á^ç^|Á•caa}åæbå•Ác@æcÁaa}]|^Á(fÁ•]^&ãa&Aí[}ã,*Á åãrda&orÁ, ão@a,Áo@-ÁÔãcÁ,-ÁNN,ãæe@ÁQ,Áæååããā[}ÊÁg,Á^å*&^Á;[c^}caædÁ;[ãr^Áā[]æ&orÁg,Á;^æèà^Á •^} • ãtã;^Á/^&^] of ! • ÊÁT ãtất ætái } ÁT ^æ• ` | ^ÁÞUOËFÁ; [` |åÁ/^` `ã^Á&I {] |ãæ} &^Á, ãt@Ác@ ÁÔãt`o; Á æl|[^åÁ@|`¦•Á[-Á&[}•d`&@[}ÁÇ'N∈€ÁæÈÈÈÁqÉAÏN∈€Á]ÈÈÈDÉÄ∄&|`å^ÁÓ^•oÁTæ)æt^{^}oÁ Ú¦æ&ca&k^•ÁqÓTÚ•DÁ;¦Á^å`&ā;*Á&[}•d`&cā[}Á;[ã^Êæ;åÁ^``ā^Á&[}•d`&cā[}Á^``ā[{^}cá[} à^Á^ˇa]]^åÁ, ãc@Á];[]^;|^Á[]^;aœā]*Áæ)åÁ; æā] cæā]^åÁ; ˇ~;|^;•Áæ)åÁ; c@;Á•cæe^Ë^ˇã^åÁ }[ãr^Áæec^}`æeā[}Áå^çã&^•ÉÚ]^¦æeā[}Á[-Ác@^ÁÚ¦[][•^åÁÚ¦[b/8cÁ,[č|åÁ/•č|cÁe[Ácæaā]}æe^Á }[ã^Á•[ˇ¦&^•Áæ••[&ãææ^åÁ,ãæ@Áĉ]ã&æ;Á¦^•ãå^}cãæ;Á|æ;åÁˇ•^•ÁV@•^Á;[ã^Á•[ˇ¦&^•Áæ;^Á c] a&ae|^Áajc^{{ acc^}} oÁa; aÁ @ loÁajÁå 'aæaj} ÊÁa; aæaj} ÊÁa; aÁa [| aÁa^Á&[{] ad aæa|^Á[Á ¢ã cā]*Á[| & A [-Á,[ã^Á¢]^¦ã^}&^åÁæÁ;'|[ˇ}åã,*Á^•ãå^}œã4`•^•ÈÄÞ[ã^Áá[]æ&æÁæ•[&ãææ^åÁ,ão@ÁœÁ Ú¦[b^&oÁ,[ˇ|åÁà^Á\^••Ás@e)Áat}ãat&e)oÁ,ão@k(ãataeaai}Áai]|^{ Ai]|^{ ^}c^åÉÁ

Šæ qˆ Ếc@ ÁÚ![២ 80Áð, 8|ˇ å^• Áæ)}^¢æði}} Áæ) åÁ8[}•^!çæði] Á[Æði]![¢ã; æð^|ˆ ÁÎ I €Áæ&!^• ÊÁ
] @\$&@Á āļÁæç^Á,[Áði] æ\$oÁQ! ÁæÁs^}^æðoÁA} Aæ) åÁ8[}•^!çæði] Á[Æði]![¢ã; æð^|ˆ ÁÍ I €Áæ&!^• ÊÁ
] ão@ð, ÁæÁ;[} Ëæææði}{ ^}oÁæ^æÁc@ ÁÚ![២ 80Áði ÁIˇ | æÁði Á; æð !^ÊÆ) åÁc@ ÁÚ![២ 80Á@æ ÁæÁ•{ æļÁ
å^ç^|[] { ^}oÁ-[[d] ¦ð dÊÁV@ ÁÚ![២ 80ÊÁði 8|ˇ åði * Áði -|æ dˇ 8cˇ |^Áði] ![ç^{ ^}o^ Áæ) åÁ[cœ|Á
&^{^[] [að Á&[}•dˇ 8cði } Áæ&æðiði • Êði Á[cÁ ¢] ^8c° åÁ[Áði }ãðæði dˆ Áði &!^æ ^ÆÐi ÞÓ Áði Áæ) Áæ} Aæ
Y ão@ði] |^{ ^} cæði } Ái Áó@ Áæ[!^{ ^} cði }^aði }^aði } • Êði] æ8c• Ái ÁÖPÕÁ√{ ã•āi} • Á; [ˇ |åÁ
à^Á/••Áæði Áið }ãðæði dÉÁ

7 ca a YbhÁV@Á&[{ { ^} c\Á^¢] \^••^•Á&[} &^\{} * Á\{[} * &\åā] * Áàā[[* ā&æ\Á\^•[` | &^•Áæ) åÁ¸ æz^\Á &[` |•^•Áæ) åÁ&` |ç^\!o-Á āc@ā Ác@ÁÚ|[b^&cÁçā&āj āc ÈV@Á&[{ ^} c\Áæ+ [Á\¢] \^••^•Á&[} &^\|} • Á^|æz^\åÁ q Á¸ ālã^Á[[c^{ ^} c

ājsų ãaj*Áni oÁ, [oÁā] ār^a Áa[ÁnaÁ, €FÁ/ær^!ÁÛ adaāc ÁÔ^¦cā aBænaā]}ĒÁÔædā[¦}ānaÁÖ^]ædd(^}oÁ, Ábōā @Á ædja Áv āja |ā^ÁŠædn^Áædja ÁÙd^æd[à^a ÁOEdro*lænā]}ÁOE°!^^{ ^}dĒvos BĒÉĀāÁ, [¦\ÁārÁ]¦[][•^a ÁājÁc@ Á ~c'¦^ĒÁBJÁna&SU|¦a ædjs &^Á,āno@Ár¢āroāj*Án^* |æng[¦^Á/~šān^{ ^}orĒÁ

 $\begin{array}{l} \text{Ce} \text{ As $ \tilde{a} \& $^{\bullet}$ ^{\circ}$ $ \text{ As $ \tilde{b} \text{ As $$

7CAA9BH @HH9F % A5F; C: F5B?

7 ca a YbhÁ/@Á&[{ { ^} &\ Á^¢] \^••^•Á&[} &^\}•Á^*æåå]*Á¸ãå-ã^Áæ)åÁ^¢]\^••^•Á[]][•ãã[}Á([Á c@Á|:[b^&dŽÁ

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Ù^^ÁTæ•c^¦ÁÜ^•][}•^ÁFÁ^|æe^åÁq;Á;āåå-ã^ÈÁ

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7 ca a YbhÁ/@Á&[{ { ^} c^\Á^¢] \^••^•Á&[} &^\\] •Á^* ædåð, *Á¸ ðåå-ðå^Áæð¸ åÁ^¢] \^••^•Á[]][•ãæð]} Á[Á c@Á,\[b\&cæÁ.

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7 ca a YbhÁ/@Á&[{ { ^} c¹Á^¢] !^••^•Á&[} &^!} eÁc@æÁc@Á&!ãæ^[!Á[cÁ尋 ^Áæåbŏ•c ^ ^] c•Áæ Á] [cÁ à ¼ * ¼ ^ cÁæð à Ás@æÁcæÁc@Á&] * ¼ æ& (¼ ~ÁæÅ[cÁ尋 ^Áæåbŏ•c ^ ^] c∮ ~Áæåbŏ•c ^ ^] có Áæð A& (að Áææábææ Á [-Á&[{] | ãæð & ^Ác@æÁc@Á[cÁæ Áææábææ /Á | ; 4 å * Á|[cÁð V @Á&[{ ~} c¹Áæþ [Á• cææ · Ácœæ Á 6ææ · Ácœæ Á 6ææ / Ácæ Áæ Áæábö•c ^ ^] có Aæð & ({ ~} có Aæð & (* eææ · Ácœæ Á 6ææ / Ácæ Áæ Áæ Aæð & (* eææ · Ácœæ Á 6ææ Aæð & (* eææ · Ácœæ Á 6ææ Aæð & (* eææ · Ácœæ Á 6ææ Aæð & (* eææ · Ácœæ Á 6ææ Aæð & (* eææ · Ácœæ Á 6ææ Aæð & (* eææ · Ácææ Aæð & (* eææ · Ácœæ Aæð & (* eææ · Ácœæ Aæð & (* eææ · Ácææ Aæð & (* eææ · Ácæ & Aæð & (* eææ · Aæð & (* eææ · Aæð & (* eææ · Aæð & Aæð & (* eææ · Aæð & Aæð & (* eææ · Aæð & (* e

] ¦^&^åāj * Ásaåbŏ • d ^} dÁqSierra Club v. Napa County Bd. of Sup'rs QGEFCDÁGEÍ ÁÔæHÁÐEJ] HÁ cQÁ FÎ QHÁ

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7 ca a YbhÁ/@Á&[{ { ^} c^!Á^¢]¦^••^•Á&[}&^!}•Á@æÁ@Á,^¸Á[æåÁ¸∄|Á,[cÁ, ^^cÁØā^Á〕æ^ĉÁÜ[æåÁ ٜ)åæå•Áæ)åÁæÁ&[}&^!}^åÁæà[ˇcÁ@,Ác@Á[æåÁ¸∄|Ás^Á;æä]cæā,^åĚÁÁ

FYgdcbgY. ÁÝOĒÁ; ^} cā[}^åÁājÁTæơ'\ÁÜ^•][}•^ÁFÁc@Á^¢ã cā]*Áæ&&^••Á[æåÁjā]Áà^Áā[];[ç^åÁājÁæ&&{];åæåAyã@Áæå]|ææå|^Ááà^Áæà}åÁæ^ĉÁ&[å^•ÈÁ

7 ca a YbhÁ/@Á&[{{^}ơ\Á^¢]\^••^åÁ&[}&^\}•Á^*æåä¾*Á¸ãå-ã^Áæ¸åÁæ&&^••Á^~˘ã^{^}oÈÁQÁ æååããã¸ÈÁo@Á&[{{^}ơ\Á^¢]\^••^•Á&[}&^\;•Á^*æåå¾*Áå^ç^|[]{^}ơÁ^* |ææã;}•ÁijÁc@ÁP¾|•ãå^Á Uç^\|æÁÖãdd&&Á^|ææ°åÁ[Á|[]^ÈÁ

7 ca a Ybh `V@ Á&[{ { ^} &\ cæe^• Ác@æeÁ{] æ&o• Át[Á@ å![|[*^ Á+![{ Á;[&\ f, [e^\ cæeÁ č '^ Á\ c^\|[] { ^} oÁ æ} åÁ^] |æ&^{ } ^} oÁ Á\ a} åÁ^] |æ&^{ } ^} oÁ Á\ (oÁ\ cæe^• Ác@æeÁ{] æ&^ } ° oÁ Á\ cæe^• Ac@æeÁ (oÁ\ cæe^• Ac@æeÁ (oÁ\ cæe^• Ac@æeÁ (oÁ\ cæe^• Ac@æeÁ (oÁ\ cæe^• Ac@eÆeÁ (oAc@eÆeÁ (oAc@eÆeÁ (oAc@eÆeÁ (oAc@eÆeÁ (oAc@eÆeA (oAc@eÆeÁ (oAc@eÆeÁ (oAc@eÆeA (oAc@eA F YgdcbgYkÁÙ^^Á'^•] [} •^Áq ÁÔ[{ { ^} œ^\•ÁÎ ÊFÁæ} åÁFÎ ÈÆŒ Áåã& ••^åÁ¾ ÁѼT ÞÖÁ Ù^&oā[}ÁÍÈF€ÉÁP^å¦[|[*^Áæ);åÁYæe^¦ÁÛ`æhãcÊÁc@^Á|;[b/&oÉÁa]&|`åā]*Áa[]¦[ç^{ ^} ^}oÁ[Ác@^Á $2888^{\bullet\bullet} \hat{A}[2884^{\bullet\bullet}] \hat{A}[2844^{\bullet\bullet}] \hat{A}[284^{\bullet\bullet}] &[`|åÁ^•`|oÁş Áse) Áş[] æ&oÁş Á; æe^¦Á`æeîÈÉP[_^ç^¦ÉÁse•Á;[c^åÁş ÁTãcã æcā;}ÁT^æ•`¦^•ÁÕÒUË FÁcc) åÁPOZËFÉÄ;¦ã;¦Áq;Ácc)^Á*;[ˇ}åÁåãač¦àæ)&^ÉÄ\¦[•ã[}Ácc)åÁç^åã[^}oÁ&[}d[|Á;|æ)•Á;@æ|Á $\dot{a}^{\dot{A}}$ \dot{a} { | Á^çã\ Áæ} å Áæ}] | [çæ|Áæ} å Á @æ|Á§ & å ÅÓ^• oÁT æ} æ ^{ ^{ ^}} oÁÚ | æ&ææ\^• ÅÇÔT Ú• DÁ§ Áæåå \^•• Á •[āļÁn¦[•ā[}Áse)åÁnd[¦{ @ec^|Á^}[ŒQuee][ÊÜFÊPÁ\$nç^|[]{ ^}dÁ^* |æea[}•Á^~~ã^Á*`à{ ãccæþÁ [~Ác@^Á-[||[, ā]*kÁ+•[ālÁæ)åÁ*^[|[*a3&æ)Á'^][¦o•ÉA+`à•`¦~æ&^Áa]ç^•cātæaā[}•ÉA;¦æåā]*Á]|æ)•ÉA] | [] ^ | ^ Áå^• ã } ^ åÁq Áæç[ãåÁã]] æ&æ Áq Á* ^ [| [* ^ ÉÁ• [ã• Áæ) åÁ@å | [| [* ^ ÉÁŒå åãã] } æ||^ ÉÁ &[}•d`&cai} Ai:[b^&c•Ác@ecAi[`|åAåãc`làAi[[!^Ác@edAi] ^Áz&k'^Ái-Ázed åÊAi[`|åAà^Át`àb^&cAi[Á $c@A'^*a^{A}$ a^{A} }^¦æ|ÁÚ^¦{ãnÁU¦å^¦ÁG€€JË€€JËÖYÛÊÁæ; [Á\}[¸}Áæ;Ác@\ÁÔÕÚDÊÁ, @3&@Á¦^``ãl^•Á []^|æeg||•Á|,-Á•,*&@Á&[}•d;*&cai}Á•ão;•Áq;Áai]|^{ ^}oÁ•q;|{ ; æeo;|Á&[}d[|•Áæ;àÁa^ço||]ÁæÁ Ùq[¦{ `, æe^¦ÁÚ[||`ca[}ÁÚ¦^ç^}ca[}ÁÚ|a;}ÁÚ|æ;ÁÇÙYÚÚÚDÁ&å^}cæ^@;*Á•]^&ã&&ÁÓTÚ•Áq[Áà^Á ā[]|^{ ^} c^åÁq[Á'^å* &^Ác@ Áæ{[*} cÁ[Á+^åã[^} cÁæ) åÁ[c@ ¦Á][||* ææ) c•Áæ• [&ãæe* åÁ, ãc@Á

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7 ca a YbhÁ/@Á&[{ { ^} c^\Á^¢] \^••^•Á&[} &^\;}•Á^*æååj*Á¸ãå-ã^ÁæjåÁ^¢]\^••^•Á[]][•ãæj}Á([Á c@Á,\[b^&dŽÁ

7CAA9BH @9HH9F '%'. BCFH<'7C5GH F9; ±CB5@K5H9F EI5@HM7CBHFC@6C5F8' fB7FKE76₺

7 ca a YbhÁv@Á&[{ { ^} c^!Á• cæc^• Ác@æcÁðj -{ !{ ææði} } Á!^* æbåðj * Á•^} • ãããç^Áàði |[* ã8æþÁ&[{ { ` } ããð • ÉÁ Y ææ'!• Ái -Ás@ÁÙcæc Áæðj å Á ^dæðj å • Áæ Á&[} -| &&æðj * Á ãx@ðj Ás@ÁÓði |[* ã8æþÁÜ^• [` ! & v • ÁCŒ•^•• { ^ } cæv • Ác@æcÁðÁY ææ^!• Á! -Ác@ÁÙcææ^Áj āļÁà^Áði] æ8æ°åÁà^Ác@Áj ![b/8æÉÅ!^* ` |ææ[! ^ Á] ^!{ ãæ Á ālÁà^Án` ãn^åÉÁ

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QÁt^^• Áæt^Á; | [] [•^åÁ[| Á^{ [çæþÉ* | ç^^• Á; ã|Áæ‡ [Áā; &| å^Áæå^} cãæðææā] } Á; ÁU | ^* [} Á; @æ^Á [æà Á[| ^• oÁæ) åÁ; [[å|æ) åÉðæ Á; ^||Áæ ÁÔæþã[| } ææÁæ Á[| ^• oÁæ) åÁ; [[å|æ) åÁ@æàãææLÁ^{ [çæþÁ [-Á*^} • áãæ;^ Á@æàãææA @æþÁæ^Á&] } å * &o^åÁð; Áæ&&[| åæ) &^Á; ác@Ác@ ÁÔæþã[| } ææÓ^] æþd ^> oÁ[Á Øæ @ææ) åÁv ðå |ã°Á^* |ææð] • ÈÉÙ^^Á; Á°Çã ð] • Áð[ÁT áæðæð] } ÁT ^æ* | ^• ÁÓQU ËFÁæ) åÁÓQU ËCÁ[| Á &[} • æ o^} & ÂÓ, åc@Ác@ ÁÓð] [*ææ, åÚ^• [* | &o^• ÁOE•^• • { ^} dÉÁ

7 ca a YbhÁ/@Á&[{ { ^} c^\Ár¢] \^••^• Á&[} &^\} • Á^* æbåð * Á, ðå-ðA^ÈÁ

FYgdcbgY.ÁÙ^^ÁTæe^\\ÁÜ^•][}•^ÁFÉÀ

7 ca a YbhÁV@Á&[{ { ^} c^!Á+cæe^•Ác@æÁ[}&^ÁÔãcÁ cặããð•Áæb^Á^¢c^}å^åÁq Ác@ÁÖ^ç^|[]{ ^}cÁ Úæb&^|•ÊòœæÁœ!^Áa 為&/œ•^åÁ,[c^}cœe∮Á;¦Á*¦cœ!Áå^ç^|[]{ ^}cĚÁ

FYgdcbgY.ÁÙ^^ÁÙ^&cai} AÍ È ĒÁÚ[] * |æeai} Aáæ) åÁP[*•ai * ÉÁ|^* æbåai * ÁæÁåai & *••ai} A[} Á[] Á][c^}caedÁ*¦[coQÁā;å*&ā;*Áā;]æ&o•ÈÁV@A¦^•ãå^}caedÁ&[{][}^}cÁ[-Ác@A]¦[][•^åÁ Ö^ç^|[]{ ^} œÂDǦ^^{ ^} oÁ, [ˇ|åÁà^Á|[&æe^åÁ¸ão@a¸Ái Áæ&i^•Á;~Ás@ Ás[æe¼Ã €Ï Áæ&i^•Á;[][•^åÁ -{¦Ása}}^¢ææā[}ÈÄÖ^ç^|[]{ ^}oÁ;[ˇ|åÁsa^Á∧•da&c^åÁq ÁsaÁq cæbÁq -ÁFIÁ;}ãæ•Áq§^ç^}Ánā;*|^Áæ∢ āfÁ @ { ^ • Áæ) åÁc@ Á [c^ } cædÁ [¦Áæ) ÁOTÖWÁ [Á^ æ&@Á@ { ^ DÁS [{] æ&cÁæ) åÁS [* e^ ¦^ åÁa Á ; å^ ¦Á [Á { ac¢ā[ã^Ác@^Á]¦^•^¦çææā[}Á[-Á[]^}Á•]æ&^ÈÁV@&ÁQQ`•ā]*Á&|`•c^¦Á;ā|Áà^Á&[}cā*`[`•Áæ)åÁ • ã, ãæ Ág Áv¢ã cã * Á ¦àæ} ã ^å Áæ ^æ Á, 㜠Á Áœ Áv ^• c^\} ÁP ã|• Á } å^¦ ÁÔãc Áŏ ¦ã å å&cã } ÈÁQ Ác@ Á]¦[]^¦c^Á,^¦^Áq[Á^{@aājÁ}āj&[¦][¦ææ^åÁ@2*•āj*Á}ãn•Á&[*|åÁ&^Á&^ç^|[]^åÁq}Ánæ&@Ajæ&&^|Á c@[**@|*ók@^ká[cæd/kxd-^ædÉxdeà^ãokáj kbælá[¦^Á;ãå^|^kásãeà*¦•^å/ká[}-ā**¦ææã[}ÈÁV@••^Á;¦[][•^åÁ $c@A|||| \cdot ^aAa + ^caeA| \cdot ^caeA| \cdot A||A|^a \cdot A||C| \cdot CaeA| \cdot A||C| \cdot CaeA| \cdot A||C| \cdot$ Ç æz^l ÉA^, ^l ÉA\|^&d &&& ÉA[| aåÁ, æz c^Á&[||^&da[} Áæ) åÁj `à|&&&æ) åÁj l ãçæz^Á[æå• DÁg Ác@ Áæb^æÁ ad;|^ada^^£a^^ç^|[]^a^{[;A]}*|^Aaq;3î^AQ`*•3;*^baq;a^A^&^aq]*^A;aaq;A^^;cax^•EV@^£x[}cat`[*•A] | [] ^ | ca^ • Ág Ác@ Ág | c@ æ• cÁse^ Áse| ^ æå^ Ár } å^ | ÁÔãc Ár | ã• å a&cag } Áse} å Á. [} ^ å ÁÜ FËP ÉÀÙ^ | ça&^ • Á c@ Áad* ^¦ÁY ^• c^¦} ÁP ã|• ÉÀ

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7 ca a YbhÁv@Á&[{ { ^} c^!Á'æãn^•Á&[}&^!}•Áæ)åÁ~`^•æ¶}•Á'^|ææ^åÁq[Ác@Á]!^:[}^Áæ]]![æ&@Á ãå^}cãaªàÁgÁœÁÚ![b%&ÁÖ^•&la]æ[} ÈÁ

FYgdcbgY.ÁÚ|^æ^Á^-^!Á(ÁTæ c^!ÁÜ^•][}•^ÁGÁ(!Á&|ætã&ææã(} ÈÁ

7 ca a Ybh ` V @ Á&[{ { ^} c^!Á'^~!•Á[Ác@ Á[||[] 尋*Ác^¢dÁ\@ãc ё] } ^åÁ] 盘&^|•Á&æ) Áà^Á|[&æc^åÁ æ) ^, @!^Á\$, Ác@ ÁÔ[`} c Áæ Á[] * Áæ Ác@ ÁÁ@ ÁÁ¢. Ác@ ÁÁ; lÁ æ) Å. Ææ Ác@ Áæ Á[!Á { `} ææ æ¼ * [] • ^•Áæ Ác@ Áæ Á] * Áæ Ác@ Áæ Å [| Ác@ Áæ] | Aæ æi] } +Áæ] åÁ cæc^•Áæ Ácæ Á [| Ácæ Áæ] | ææ á Ácæ Áæ] } *Ææ å Ácæ ææ æ³ · Áæ} ^Á; -Ác@ • Ái] | ææ æí] } •ÉQ Áæ ÆÊ ææ *AÚØÊ, ælÁcæ æÁ; [} ^Á; -Ác@ Á] ! [çã æ] } •Áæ ^Á *æ æ³ -ð åÉV @Á; !] ^ c Ácæ Æ§ Á! [] [• ^ åÁ[Ás^ Ás^ ê ð] æc åÁÚØÊ, ælÁ; á Ác Ág *Á; ' ðæ æÁ; ' ælÁ; * ælÁ; *ælÁ; *ælÆ; *æl

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7 ca a YbhÁc@Á&[{ { ^} c^\Á^¢] \^••^•Á&[} &^\} •Á^* ædåð; *Áçãr * æþÁð[] æ&c•Á^|ææ^åÁ([Ác@Á, ææ^\Á cæ}\ÉÁ%,♂、Áæ&&^••Á[æå•+Éæð;åÁ,[c^}cæð;Áð;*|^Ёæ¢ ð;ÁQ{ ^•ĚÁ

$$\begin{split} & \vdash \left[\stackrel{.}{A}_{1}^{A} - \stackrel{.}{A}_{2}^{A} - \stackrel{.}{A}_{1}^{A} \right] \left[\stackrel{.}{\bullet} - \stackrel{.}{A}_{1}^{A} + \stackrel{.}{\bullet} - \stackrel{.}{A}_{2}^{A} + \stackrel{.}{\bullet} - \stackrel{.}{A}_{2}^{A} + \stackrel{.}{\bullet} - \stackrel{.}{\bullet} - \stackrel{.}{A}_{1}^{A} + \stackrel{.}{\bullet} - \stackrel{.}{$$

U}^Á,-Á@ÁB.c^}cā}}^Á-Á@ÁPÁ©Ã dãoÁPÁÖà dãoÁŠ ÁÍ, Á!^•^!ç^Á; o cæ) åð; *Áæ; læ;Á@•ãæ; læ;Á@•ãæ; l^•ÉÁ
• *&@Áæ Á@Áæã @• oÁ&!^• oÁ,-Áæ;Áæ¾IÊÁ,æë; læ;Á[&\Á; `c&![]]ð; *•ÊÁ, æð; lÁ;^^Æò^|æ;ÉÁ; æð; lÁ;^^Æò^|æ;ÉÁ; æð; lÁ; Ac@Á•æ;ÉÁ; æð; Aj !^o;^}cð; Aí !^•æå,} (að; Aí,-Áæ,Aí) [] { ^}oÁ[] Ác@Á^æ;ɽ, æð; Aí, l^o; Aí, log; Aí,

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FYgdcbgYkfÙ^^Á^•][}•^Áṭ ÁÔ[{ { ^} oÁŠ^cơ\ÁFÎĒĀQAÁœååãũā}}ĒÁãA∳ Qº |åÁà^Á&|æåããàåÁc@æÁ •`¦ç^^•Áæ}åÁc@ÁÓā[[*ä&æ∮ÁÜ^•[`¦&^•ÁŒ•^••{ ^} oÁ¸æÁE]}å`&ơ\åÁ[}ÁÍÍÁæ&¦^•Á;Áo@Á Ú¦[b^&oÁãrÁæ}åÁā;ãơ\åÁā;Áæ}åÁā;Áæ\^æÁs@æÁ;[`|åÁā,&|`å^Át¦[`}åÁåãč'¦àæ}&^LÁc@áÁā,&|`å^•Ác@Á ÍÍÁnæ&!^•Án}&[{]æ••ā;*Án@Án;[][•^åÄÖ^ç^|[]{^}oÁÚæ;&^|•ÉÁnjÁnæååããā[}ÁqíÁn@Ánæ&&^•Án[æåÁ Ç¢¢^}å^åÁn;ŏÁqíÁr€€ÁnÁn;}Ánãn@¦Ánãn^DÉAnnjåÁn@Á,ææ^¦Ánæð;ÁnæåÁnãmÈÉÞ[Ánå^ç^|[]{^}oÁn;IÁ *¦[`}åÁnåãnč¦àænj&^Á,[`|åÁqí&&;IÁq;}Án@Á^æ;áãnā[}æþÁnā]¦[¢ā[ææ^|^Án]।€Ánæ&!^•ÉÁæe,ÁñóAjā|Ánà^Á]¦^•^¦ç^åÁnæ∮á,]^}Án]æ&∧ÈÁOB&&[¦åā]*|°ÉÁnæååãña[}æþÁná[|[*&ææÞÁn;¦ç^^•Ánæb^Á,[oÁ,æb¦ænj¢å

7 ca a YbhÁv@Á&[{ { ^} c^\Á^¢] \^••^•Á&[} &^\\ Á^* æåā]*Á¸ ālå-āl^Áæ)åÁæ•\•Á•^ç^\æÁ` `^• æī}•Á \^* æåā]*Á¸ ālå-āl^É\$;•` \æ) &^É\$[ālÁ; [ãcč\^É\$;|`* @É%æ ābātāc Ár Ác@ÁÚ|[b/&dÉæ)åÁ@`•ā]*Á,^^å•ÈÅ

FYgdcbgY.Á/[][*|æ]@&æ4Á;æ]•Éæ4Á;a]•Éæ4Á;a)•Á;c@¦Á^•[`|&^•Áæ;c^åÁ§;Á@ÁÜ^~\|^}&^•Á Ù^&æ[}Á[-Ác@ÁÛ)TÞÖÉÁ,^\^Á\^çã,^åÁå'|ð;*Ác@Á]|^]æbæ[]\$Á[-Ác@ÁÛ)TÞÖÉÁCEÁ d[][*|æ]@&æ4Á;æ]ÁæÁ;[cÁ^` ã^åÁ§;Á§,A§;&|`å^åÁ§;Ác@ÁÛ)TÞÖÉÆP[,^ç^¦ÉÁ},^Æá§;&|`å^åÁ ð;ÁÜ^•][}•^Áç[ÁÔ[{{^}œÁCEæ&@^}oACEÁ;!Á^~\|^}&^ÉÁ

7 ca a Ybh`V@Á8[{ { ^} c^\Á•cæc^•Ác@æcÁæò ÁÒÜÜÁã·Á\^``ã^åÁ[Á@æç^Áædc^\}æãç^ÉÃ]&|`åã;*ÁæÁ\[Á] \[b^&cÁædc^\}æãç^Áæò åÁ;c@\Áædc^\}æãc^•Ác@æcÁæ&@ð\c^Áœ Áæ¢ ^Á;\Á\``æÁ;\[çãã}}•ĒÁ

 $FYgdcbgY. \'AV@\'A&[{ { ^} c'|\'A&\'A&[|| ^&CPA$ \'A&[|| ^&CPA$ \'A&CA$] \'A@æ\'A&&&[|| ^a a$] * \'A&[\'A\^OOÛ OPAÕ~ ~aa^| a$ ^• \'AU^&CA$] \'A FIFG Ê$ \'A|` || Aaæ \aa] \'A ~\A$ \aa `` A`A$ \aa

7 ca a Ybhá/@Á&[{ { ^} c^\Árcæc^•Áx@æcÁæ¢^\}æãç^Árãc^•Á[\Áx@Á;æc^\Áæ}\Á; * oÁà^Á§&|`å^åÁæ}åÁ\\æã^^•Á[\Áx@Á;æc^\Áxæ}\Á; * oÁà^Á§&|`å^åÁæ}åÁ\\æã^^•Á[\Áxæ]*A\@Á;æc^\Áxæ}\Áxæ}åÄ

F Ygdc bg Y. Á $\mathbb{Z}_{\mathbb{Q}}^{\times}$ * @Á [$\mathbb{Q}_{\mathbb{Q}}^{\times}$ * # 7CAA9BH @9HH9F %. A9B8C7-BC 7CIBHM @C75@:CFA5H-CB 7CAA-GG-CB fl@5:7ck

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"Discussion: (a) Less than significant impact. As previously discussed in the Project Description and Land Use Section (11) of this Initial Study, the Proposed Project would annex approximately 707 acres into the City. Once annexed, 54 acres could be developed with up to 14 residential units (seven single family homes and one associated ADU per lot) through the proposed Development Agreement. Although no development is proposed at this time, for this analysis it is assumed that future development would result in construction and development of residential uses on the site.

Under the County's General Plan and Zoning Ordinance, the entirety of the 707 acres has the potential to be developed with up to one dwelling per 40 acres, for a

total of 17 primary dwellings. In addition, an ADU may be constructed as of right on each parcel, resulting in the potential for up to 34 total units to be developed. The City of Ukiah's General Plan land use designation of Low Density Residential (LDR) allows for a density of six dwelling units per acre. Under these regulations, the 54 acres for residential development could conceivably be developed with up to 330 units. However, the proposed Development Agreement would restrict development to one single family dwelling per parcel and one ADU (except in cases where the slope exceeds 50 percent, per the City's Hillside Overlay Ordinance), for a total of up to 14 units. Although Development Parcels 1-3 may be developed within the County's jurisdiction prior to annexation by-right, they will be required to be developed to R1-H standards through CC&Rs. All Development Parcels would be prezoned to R1-H (with a Low Density Residential General Plan land use designation) and are located within the 95' General Plan's Unincorporated Planning Area, as well as the current UVAP/SOI boundary. The proposed Development Parcels are consistent with the density and intent of the LDR land use designation and R1H zoning. Additionally, the 14 units that could be developed under the Development Agreement would fulfil a portion of the moderate to above moderate income units required by the City's RHNA for the 2019-2027 Planning Cycle.

As a part of the Project, utilities would be extended to the area. However, because the extension of utilities would be limited to the seven Development Parcels that are currently zoned for rural residential development, the Project, including development of up to 14 units, would not directly induce substantial unplanned development and population growth in the area. The remaining 640 acres that would be preserved as open space would not be developed with residential uses that could result in an increase in population. For the aforementioned reasons, the Proposed Project would not induce substantial unplanned population growth in an area, either directly or indirectly. Impacts would be **less than significant.**"

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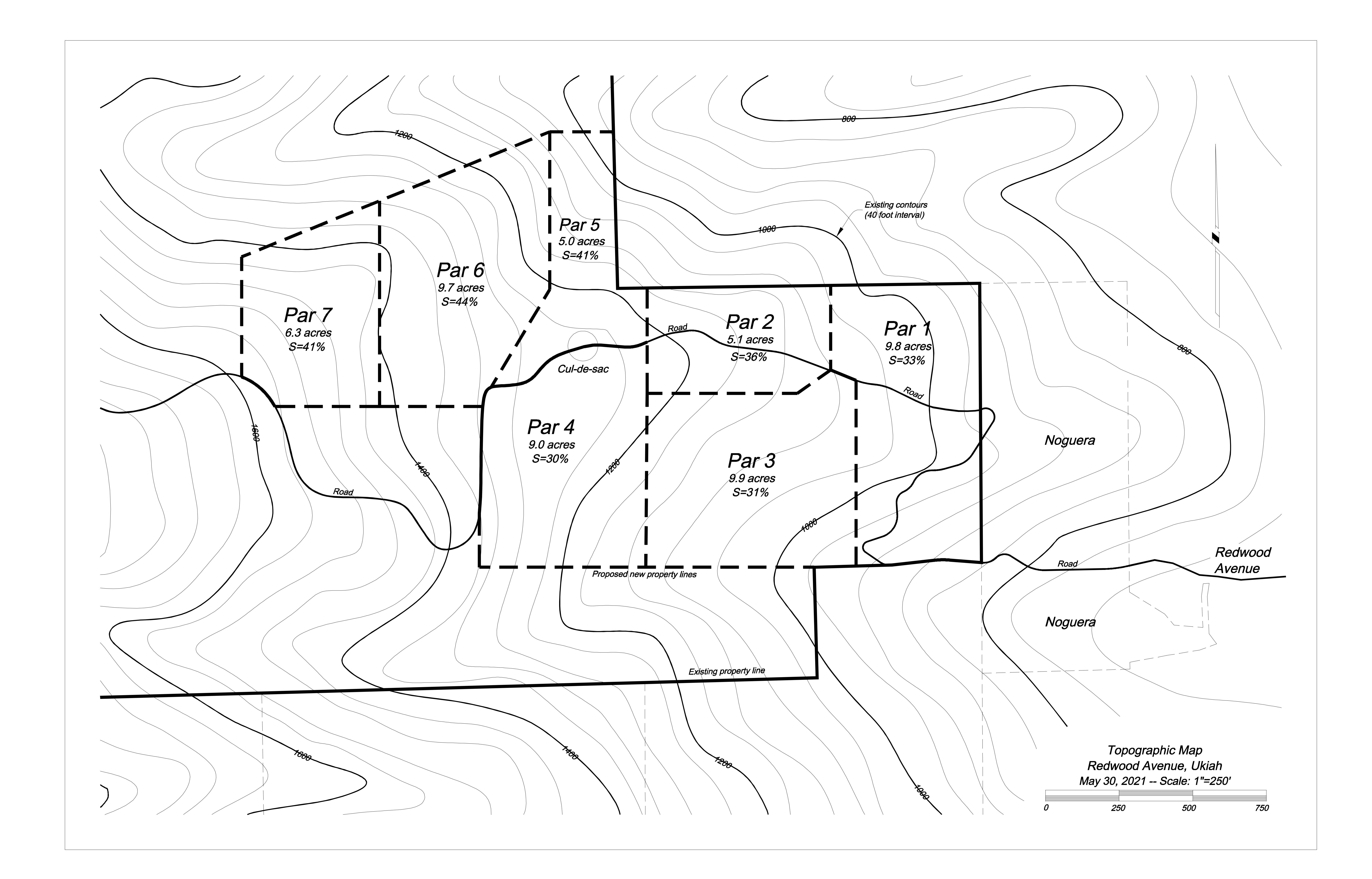
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UKIAH VALLEY FIRE AUTHORITY



1500 SOUTH STATE STREET UKIAH, CA 95482-6709

Phone: (707)462-7921 Fax: (707)462-2938 Email: uvfd@sonic.net

MEMORANDUM

Date: 27 May 2021

To: Michelle Irace, Community Development Manager

From: Doug Hutchison, Fire Chief

Subject: Western Hills Annexation, aka "the Hull Properties"

This memo is in regards to fire safety concerns that have been raised regarding the potential annexation of the Hull Properties in the Western Hills are of Ukiah.

The largest issue for the Fire Authority will be the administration and oversight of the project area for fire prevention once it is annexed. Per State law, once the area is annexed into the city it will be re-designated from "State Responsibility Area" (SRA) to "Local Responsibility Area" (LRA), but will retain its classification as a Very High Fire Hazard Zone. As such, the city, through the Fire Authority, will be required to enforce the State's fire safety standards on those lands.

It is our understanding that the proposal includes the possibility of very limited future development of seven (7) parcels in the lower, mid-slope portion of the property.

I performed a site visit with the property owner and went over the proposed development plans and believe that with the widening and paving of the road, and the installation of the water tank and fire hydrants we will be able to comply with the State's fire safety regulations in that area. This is not to say that the area does not present challenges, but they are no different than many other areas that we currently protect, and in many cases the conditions currently present and proposed would be better than those other areas.

In regards to the recently re-established shaded fuel break in the area, the addition of the small amount of structures would have minimal if any impact on its effectiveness. The



DEPARTMENT OF FORESTRY AND FIRE PROTECTION

17501 N. Hwy 101 Willits, CA 95490 (707) 459-7414 Website: www.fire.ca.gov



May 21, 2021

Michelle Irace, Planning Manager Department of Community Development 300 Seminary Avenue Ukiah, CA 95482

Subject: Western Hills Project

Ms. Irace.

This letter is a follow-up of the meeting on May 18th, 2021 with respect to the City of Ukiah's Western Hills Annexation Project.

The scope of the project entails the City of Ukiah to acquire 707 acres of land that is currently in the County of Mendocino's jurisdiction. Additionally, there is a possibility of future subdivision of parcels, as well as potential construction of residential units once the acquisition and annexation are complete.

This acquisition and eventual annexation of land into the City of Ukiah will have two significant effects from the Unit's perspective:

First, the land being acquired and annexed is currently within the State Responsibility Area. Under Public Resources Code Section 4125(a), CAL FIRE has the financial responsibility of preventing and suppressing fires on State Responsibility Area land. Under the proposed annexation, this land will be removed from the State Responsibility Area and will come under the purview of the City of Ukiah.

Public Resources Code Section 4127(b) requires that land inside an incorporated city be designated as being within the Local Responsibility Area. As this project's intent is to annex County land into the City, it will be then reclassified as being within the Local Responsibility Area. Therefore, the City of Ukiah will be financially responsible for the prevention and suppression of fires that occur on the acquired land once the annexation is complete as required in Public Resources Code Section 4125(a).

The second significant issue deals with new construction in Very High Fire Hazard Severity Zones in the Local Responsibility Area. Public Resources Code Section 4290, as amended by Assembly Bill 1823, requires lands classified and designated as Very High Fire Hazard Severity Zones in the Local Responsibility Area to comply with the requirements of the State Fire Safe Regulations beginning July 1st, 2021. In addition, Public Resources Code Section 4290 requires the local jurisdiction, not CAL FIRE, to implement and enforce the State Fire Safe Regulations on these lands.

As outlined in Public Resources Code Sections 4202 and 4203, the land involved with this annexation proposal is currently classified by the Director of the Department of Forestry and Fire Protection as being within a Very High Fire Hazard Severity Zone. Once annexed into the city, it will become the responsibility of the City of Ukiah to review, inspect and enforce the State Fire Safe Regulations on this land, as well as any other land that is classified as being within a Very High Fire Hazard Severity Zone within the Local Responsibility Area within the city's boundaries.

To summarize, once annexed into the City of Ukiah, the parcels in question will be transferred out of the State Responsibility Ara into the Local Responsibility Area. Once in the Local Responsibility Area, the City of Ukiah will be financially responsible for fire prevention and fire protection efforts on this land, as well as ensuring that any future improvements conform to the State Fire Safe Regulations.

If there are any questions regarding this issue, please feel free to contact me at (707) 459-7423, or by email at chris.vallerga@fire.ca.gov.

Chris A. Vallerga

Fire Captain/ Pre-Fire Planning

Mendocino Unit

Cc: MEU PRC 4290 File

Maya Simerson, Project Administrator, City of Ukiah Doug Hutchison, Fire Chief, Ukiah Valley Fire District Mendocino County Planning and Building Department

Reference: Public Resources Code Sections 4125-4127, "Responsibility for Fire Protection"

Public Resources Code Sections 4202-4204, "Fire Hazard Severity Zones"

Public Resources Code Section 4290, "Fire Safety Standards for State Responsibility Area Lands"

California Government Code Section 51177(i), "Very High Fire Hazard Severity Zones"

Title 14 California Code of Regulations, Division 1.5, Chapter 7, Sub-chapter 2, Article 2, "State Fire Safe

Regulations"



natural resource planning & management

May 31, 2021

Catherine Iantosca
Environmental Scientist
Southern 401 Water Quality Certification Unit
North Coast Regional Water Quality Control Board
5550 Skylane Blvd, Ste. A
Santa Rosa, CA 95403

RE: Response to 5/20/21 Regional Water Board Comments: City of Ukiah Western Hills Open Land Acquisition & Limited Development Agreement

Dear Catherine,

Thank you for commenting on the Biological Resource Report for the City of Ukiah Western Hills Open Land Acquisition & Limited Development Agreement.

With regards streams and riparian habitat Section 5.1.2, (5) Field Survey Results, (.1) Biological Communities (.2) Sensitive Biological Communities – Sensitive Aquatic Resources (page 16) states that six watercourses were observed and mapped in the Study Area. It additionally states that two sensitive biological communities, *Quercus garryana* Forest & Woodland Alliance (S3) and *Umbellularia californica* Forest & Woodland Alliance (S3) were observed within the Study Area.

Please refer to section 6.1, (6) Assessment Summary and Recommendations, (.1) Biological Communities (page 27-28), for recommended mitigations to reduce the impact of the project to streams and sensitive biological communities including riparian habitat. For proposed work within watercourses, such as stream crossings, our recommendations include obtaining a CDFW LSA Agreement but should include obtaining a SWRCB 401 permit as well.

With regards to wetlands, Section 3.4.2, (3) Field Survey Methodology, (.4) Biological Communities, (.2) Sensitive Communities-Aquatic Resources (page 8), is not a result or account of what we observed on site and is meant to describe our methodology in defining and describing wetlands for the purposes of the assessment. Generally, if a suspected wetland is observed during our biological assessment, it is referred to as a "wet area" until a wetland delineation is performed to determine whether the "wet area' meets the criteria of wetlands as described by the USACE 1987 Manual. The NWI database is consulted at a reconnaissance level before our site visit and is not intended to substitute on-the-ground field assessments for wetlands.

Please refer to section 5.1.2, (5) Field Survey Results, (.1) Biological Communities, (.2) Sensitive Biological Communities-Sensitive Aquatic Resources (page 16), for the results of the assessment concerning sensitive aquatic resources including wetlands. No wetlands were observed within the Study Area during the biological assessment. We will make these results clearer for future reporting.

If you have any questions, please do not hesitate to contact me.

Sincerely,

Alicia Ives Ringstad Senior Wildlife Biologist Jacobszoon & Associates, Inc.





natural resource planning & management

August 8, 2021

RE: Response to 5/20/21 Public Comments: City of Ukiah Western Hills Open Land Acquisition & Limited Development Agreement

To whom it may concern,

Thank you for commenting on the Biological Resource Report for the City of Ukiah Western Hills Open Land Acquisition & Limited Development Agreement.

With regards to the following comments:

"I encourage the City to complete the botanical studies as planned. The study states that at least one more site visit was recommended. I recommend that this be completed before CEQA is finalized. That may mean waiting another year as many plants bloomed early this year and have already withered."

As noted in the Draft ISMND, botanical surveys were completed on 03/30/2021 and 5/17/2021. As noted in Draft ISMND Mitigation Measure BIO-1, the third botanical survey was required to be completed within the blooming period (March –July) and prior to any ground disturbing activities. The third and final botanical survey was completed and 7/9/2021. The surveys were conducted in accordance with "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities" (CDFW 2018). No special status species plants were observed during the surveys. The botanical surveys are now completed for the project and no further recommendations for sensitive plants are required. Please refer to the Biological Resources Assessment Addendum for Rare Plant Assessment and Botanical Survey for more information.

"There are year-round springs adjacent to the road and I have heard that there are others in the area. We have found giant pacific salamanders on our property that must be residents of the springs. I don't think the salamanders are a protected species but they are very unusual in the Ukiah Valley. I have found native snails that I think are also unusual, if not protected, and I wonder what other species might be residents of these springs? I hope the biological surveys included the areas around the creek drainage."

The creeks within the Study Area were surveyed during the biological assessment and first botanical survey and no special status species were observed; however, it is recommended in biological assessment report in Section 6 that if any work is proposed within the streams to conduct preconstruction surveys for sensitive amphibian species.

"The unnamed creek drainage that runs along Redwood Avenue should be treated as a wildlife corridor and a seasonal creek. The springs along the creek are an important water source for wildlife. I have this drainage affected by sediment flows from improper grading, poor culvert placement, bright lights, tree removal in the creek corridor, and recently, fencing of the creek, prohibiting wildlife passage. I am concerned that these trends will continue if there is not educated oversight. Some of this has been on county land and some within the city limits."

It is recommended in the Biological Assessment report in Section 6 that all earthwork within or adjacent to the watercourse adhere to standard methods of erosion and sediment control and, if possible, to complete all work while the channel is dry to reduce sediment load downstream. It is also recommended that a qualified biologist be on site for any dewatering event to address the potential for the presence of sensitive aquatic species such as foothill yellow-legged frog (*Rana boylii*).

If you have any questions, please do not hesitate to contact me.

Sincerely,

Alicia Ives Ringstad Senior Wildlife Biologist

Jacobszoon & Associates, Inc.



Comments Received on the Ukiah Western Hills Open Land Acquisition & Limited Development Agreement Project Draft ISMND Public Review Period April 16, 2021- May 20, 2021

Comment Letter #	Commenter	Date Received
1	Margo Frank	May 3, 2021
2	Crispin B. Hollinshead	May 6, 2021
3	Ulla Brunnberg Rand	May 12, 2021
4	Allie Duggan	May 13, 2021
5	Western Hills Fire Safe Council	May 14, 2021
6	Chris Watt	May 18, 2021
7	Jeanne Wetzel Chinn	May 19, 2021
8	Andrea Vachon	May 19, 2021
9	Michael Maynard	May 19, 2021
10	Sharron Thomas (sent via email from Emily Thomas)	May 19, 2021
11	Andrea Davis	May 20, 2021
12	Margo Frank	May 20, 2021
13	Heather Seggel	May 20, 2021
14	Thomas Hunt (via email from Chris Watt)	May 20, 2021
15	Steve and Jean Lincoln	May 20, 2021
16	North Coast Regional Water Quality Control Board	May 20, 2021
17	John and Delynne Rogers	May 20, 2021
18	Pinky Kushner	May 20, 2021
19	Mendocino County Local Agency Formation Commission (LAFCo)	May 20, 2021
20	Helen Sizemore	May 20, 2021

From: Margo Frank
To: Michelle Irace

Subject: Commenting on draft for Western hills open land

Date: Monday, May 3, 2021 7:17:20 PM

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Hi Michelle,

I read the lengthy and detailed draft of the initial study for the Western Hills development. We moved to Gardens Ave last fall after living at the top of Deerwood in the Eastern hills of the Ukiah Valley. While living there we were very aware of the danger of living in a high fire zone and having only one road for egress. It seems to me that this proposed Western Hills development would create a similarly dangerous situation. Many people I know who now live on the far western edge of Ukiah, up against the hills, are very concerned about fire risk. I don't understand how development on those hills makes any sense!

Thank you, Margo Frank 180 Gardens Ave. Ukiah From: Crispin B. Hollinshead
To: Michelle Irace

Subject: comments of proposed Western Hills annexation

Date: Thursday, May 6, 2021 12:23:36 PM

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Members of the Planning Commission,

My name is Crispin B. Hollinshead. I am a neighborhood representative on the Western Hills FireSafe Council, and the proposed Western Hills annexation was a topic of discussion at our recent meeting.

California is now headed into another drought, and the fire seasons over the last few years keep exceeding previous records. The proposed annexation includes 7 parcels for residential development, allowing up to 14 new homes. Emerging fire safe understanding suggests this kind of Wildland Urban Interface development is bad public policy, very risky for the potential home owners, and expensive for the community trying to protect that property.

Historic fires in the area burned down to the valley floor as far a Todd Grove Park in the 1950's. There is no reason to believe that the projected development wouldn't be completely destroyed by such fires happening in the future. The projected development is to the west of the recently completed Shaded Fuel Break, putting it in the expected sacrifice zone. The single road access will be a problem in a fire emergency, and will likely violate emerging CalFire regulations.

I urge you to take a serious look at the fire hazard being created, and revise the plans.

Sincerely,

Crispin B. Hollinshead 960m Dominican Way Ukiah, CA 95482

Gratitude, Love, and Global Awakening May All Beings Awaken From The Illusion Of Separation May You Awaken With This Breath



From: <u>Ulla Brunnberg Rand</u>
To: <u>Michelle Irace</u>

Subject: Comments of proposed Western Hills annexation

Date: Wednesday, May 12, 2021 2:08:58 PM

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Members of the Planning Commission,

My name is Ulla Brunnberg Rand. I am a neighborhood representative on the Western Hills Fire Safe Council, and the proposed Western Hills annexation was a topic of discussion at our recent meeting.

California is now headed into another drought, and the fire seasons over the last few years keep exceeding previous records. The proposed annexation includes 7 parcels for residential development, allowing up to 14 new homes. Emerging fire safe understanding suggests this kind of Wildland Urban Interface development is bad public policy, very risky for the potential homeowners, and expensive for the community trying to protect that property.

Historic fires in the area, one of them started by boys playing with matches, burned down to the valley floor as far as Todd Grove Park in the 1950's. There is no reason to believe that the projected development would not be completely destroyed by such fires happening in the future. The projected development is to the west of the recently completed Shaded Fuel Break, putting it in the expected sacrifice zone. The single road access will be a problem in a fire emergency. It will likely violate emerging CalFire regulations.

I urge you to take a serious look at the fire hazard being created. Please revise the plans to only allow one dwelling per parcel and possibly less parcels.

In addition, please consider, allowing this Western Hill Development can become a precedent for future developments in the WUI area. I do not want to see any more developments in the hills. I am concerned that having more people living in high fire prone zones creates more possibilities for accidental fires and could potentially endanger the entire Ukiah Valley.

Sincerely,

Ulla Brunnberg Rand

109 Giorno Ave.

Ukiah, CA 95482

Michelle Irace

From: Allie Duggan <allie@studio4forty.com>
Sent: Thursday, May 13, 2021 9:52 AM

To: Michelle Irace

Subject: Ukiah Western Hills Open Land Acquisition

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

I am writing to express my strong opposition to the development of homes on the Ukiah Western Hills Open Land Acquisition. This development would be detrimental to the area, nearly all residents in on Redwood Avenue are completely opposed to the development of homes that will cause traffic on a road not equipped for any more than it already sees, safety problems, and destroy local wildlife habitat. Additionally, I was under the impression that this land was originally donated for fire mitigation and recreation, not development.

Traffic and safety of children on the street are major areas of concern. We don't need any more cars and trucks going up and down this tiny street and we did not sign up for months of construction equipment going up and down the street on a daily basis. Most of the time with cars parked on the street it is a one lane road and not equipped to handle the high traffic this will cause.

Wildlife has been observed in the area, and any development will destroy their habitat. Any planned development of the property should consider the continuing impact to local wildlife habitat which should be investigated by the appropriate agency prior to approving development.

Among the impacts stated on the notice we got, wildfire is my, and should be the cities main concern. We do not need any more catalysts that could potentially cause a wildfire in this are, especially a high risk zone like the proposed land. This land was originally acquired for fire mitigation so this is completely going against what the land was originally donated for. Quoted from a news article from January 15, 2021 "the local government hopes to use the land to create and maintain fuel breaks to protect the city from fire, for conservation, and for recreation." Link Absolutely no mention of development, so it is extremely discouraging to know that has been added to the plan now.

I was disappointed that this project started on April 16, 2021 and the homeowners on Redwood Avenue, who would be majorly impacted, were given printed notice of it on May 13, 2021, nearly a month after this process has started. That is completely inconsiderate to all of us on this street who will have to deal with the issues that development will cause.

I urge you to disapprove the proposed development, and from recent meetings and discussions with my neighbors, I know my opinions are shared by many who have not managed to write letters and emails.

Thank you for your continued service and support of our communities.

Best regards,

ALLIE DUGGAN | CREATIVE DIRECTOR

916.539.9395 | allie@studio4forty.com | studio4forty.com

STUDIO Wine women & shoes Tarm to table (aux) OVENTFUL

To the Ukiah Planning Commission and City Council Members:

The Western Hills Fire Safe Council (WHFSC) is a FSC project under The Mendocino County Fire Safe Council (MCFSC), a 501.C3 organization. WHFSC has eighteen neighborhood sub-groups in and along the Western Hills that actively work on fire preparedness, prevention, emergency measures, and environmental protections.

The ISMND states that Mr. Hull generously donated 188.57 acres (ISMND, Figure 2, parcel 10) to the City in December 2020. On December 11, 2020, there was an article in the Ukiah Daily Journal by Justine Frederiksen praising the gift from Mr. Hull. There was no mention of the annexation and acquisition of 693 acres (ISMND, p.2) or 740 acres (ISMND, p.4, para 2) or 640 acres (ISMND, p.4, para 6) ("Hull Properties") when she interviewed City Manager Sangiacomo. On April 16, 2021, Notice of Intent was sent to a few Redwood Avenue and San Jacinta Drive property owners, and the scope of the project goes well beyond a land donation.

The improvements Mr. Hull has made to his property go back at least to 2015 (ISMND, page 3, #3-Background – road improvements were made throughout 2015-2017 and the road extended further west in 2018). Changes included widening, improving, and extending the westward access road, vegetation management on proposed construction sites, and preparation of the water tank site. These improvements were followed by the December 2020, 188.57 acre land donation, followed by the current proposed annexation and acquisition agreement.

The majority of the property is zoned PF, public facilities. It possible to change this zoning designation in the future to R1-H zoning (single family residential), should there be interest in further development. Clearly, the property was being prepared years ahead for development, as documented in the ISMND. Is it possible to change the zoning on the inside conservation PF zoned parcels (ISMND map p.13) to a Conservation Easement in perpetuity along with the outside conservation parcels for a Ukiah Wildlife Sanctuary?

Regarding the proposed water tank, in the ISMND, page 8, it is stated, "...the City desires to add new water storage <u>and</u> fire protection facilities in the Western Hills." What are the plans for the new water storage tank besides fire protection measures? Who will be responsible for maintaining the 150,000 gallon tank, pump, and well that supports the water tank? Is the water in this tank dedicated for fire department use or also for use of potential domestic purposes for the buildout? Will there be hydrants on the city water main extending up from Redwood Avenue? Neil Davis' responses to WHFSC questions to Mr. Sangiacomo regarding the Hull Properties Limited Development Agreement included a question on water resources. Mr. Davis stated, "...this project provides sourcewater protection and will benefit the entire Ukiah Valley by protecting the sourcewater and ensuring that it reaches its maximum potential." How does Mr. Davis define "sourcewater protection?"

Historical wildland fires in the Western Hills includes the substantial 1945 Hayworth Fire that took out all the vegetation. The Fire Department came to the edge of development and set backfires that halted the fires. The Strong Mountain Fire occurred in 1950, and another scare

about a decade ago was from 150 lightening fires to the west that didn't result in fire in the Western Hills. The proposed buildout area is in the CalFIRE designated Highest Fire Severity Zone, as well as in a Wildland-Urban-Interface (WUI) area. It would be prudent to keep this landscape free of human habitation for the safety of citizens and to not further overburden our fire resources. "One of the first and most important considerations is how the location itself influences exposure to wildfire and potential for future losses of life and property." (Moritz, Max, Butsic, Van, Building to Coexist with Fire: Community Risk Reduction Measures for New Development in California. UC ANR Publication 8680, April 2020, page 8)

The potential development parcels buildout of 14 units (ISMND, p.7, para 3) are west of the fire break thus defeating the purpose of the Shaded Fuel Break for wildfire protection measures. Can the residential development of the 54 easternmost acres be taken out of the Development Agreement, or are they inextricably linked to acquiring the conservation lands? Will the lower elevation properties also west of the shaded fuel break that remain in Mr. Hull's possession be considered for future buildout?

Thank you for your attention to these matters. We look forward to your responses.

The Western Hills Fire Safe Council Chair, Jeanne Wetzel Chinn, M.S. 395 San Jacinta Drive, Ukiah JeanneChinn@gmail.com

From: Christopher Watt
To: Michelle Irace

Subject: Ukiah Western Hills Open Land Acquisition and Limited Development Agreement

Date: Tuesday, May 18, 2021 11:25:40 AM

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Hi Michelle - here are my comments/questions on the IS/MND. Please include in the record and provide responses.

- 1. Does the annexation require a tax-sharing agreement with the County of Mendocino? If so, what actions have been taken by the City to secure an access agreement?
- 2. Have the parcels proposed for development to be pre-zoned as Residential with Hillside Overlay been sized consistently with the Hillside Development Standards? If not, the parcels should be sized in accordance with the Hillside Development Standards and Subject to the Use Permitting Process and the Hillside Development Standards.
- 3. In 1991, the California Geological Survey prepared a report titled Landslide and Engineering Geology of the Western Ukiah Area, Central Mendocino County, California, Landslide Hazard Identification Map No. 24. Was this map consulted to determine the potential presence of landslide hazards with the parcels proposed for development and the access roads to the development? This report should be consulted and included as a reference in the IS/MND.
- 4. The California Building Code requires a Preliminary Soils Report for any subdivision of land. This project seeks to create parcels for development by lot line adjustment thus avoiding the requirements for subdivisions; however, given the known landslide hazards within the Western Hills as documented in the 1991 CGS Report, it seems imprudent to not perform a preliminary soils report to determine if the parcels proposed for development have soils or landslide hazards which would preclude development or at a minimum severely limit the development potential.
- 5. The Geology and Soils section of the IS/MND should also reference the requirement in the California Building Code to submit a Geotechnical Report for each lot.
- 6. The Wildfire section of the IS/MND indicates that fuel breaks are developed in the project area. However, fuel breaks requirement ongoing maintenance. The IS/MND does not describe how the fuel breaks will be maintained. Also does, the Ukiah Valley Fire District have capacity to defend the proposed development areas against wildfire given the Extremely High Fire Risk for the lands adjacent to the proposed development area? Why not subject these parcels to Wildland Urban Interface requirements? Perhaps include a benefit zone to pay for vegetation management and fire protection which is quite different from the urban parcels of the City.

Sincerely, Chris Watt 690 Mendocino Drive, Ukiah

From: <u>Jeanne Chinn</u>
To: <u>Michelle Irace</u>

Subject: Comments on proposed Western Hills Annexation

Date: Wednesday, May 19, 2021 1:36:38 PM

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

To Ukiah's Planning Commission:

I applaud David Hull for donating 188 acres of wildlands to the City of Ukiah.

I don't take issue with transferring several of his individual parcels to be annexed to the City of Ukiah. However, there are concerns regarding how the additional acreage is planning to be utilized: 296ac for Conservation Lands on the most western area, 343ac for Recreational (zoned PF-Public Facilities) Lands in an odd shaped "C" pattern, and 54ac as Development Parcels (zoned R1-H) on the northeastern corner, as shown and stated in the ISMND map legend on p.13. Who owns the 5 parcels between the "C" Recreational Lands, and what are the plans for these parcels?

The role of land use planning in communities with very high and high fire severity zones is to create wildfire resilience for protection of the community. CalFIRE has already supported this in calling out Ukiah's Western Hills as one of their 35 top projects in 2017. That alone tells us these Western Hills are fragile and at risk. CalFIRE's follow-through was exemplary in dozering the ridge tops and working with the County/City to re-establish and extend the Shaded Fuel Break from Low Gap Road to Robinson Creek Road.

The Western Hills is in a Wildland-Urban-Interface (WUI) area. Given the recent uptick in wildfires and drought years, to be further exacerbated by climate change into the future, it is counter-intuitive to plan a buildout of [up to 14] any more homes in the WUI/highest fire severity zone. Further, this buildout would be west of the Shaded Fuel Break, creating additional risk and expense to fire fighting resources and potentially life-threatening to the residents. These homes would be exclusive and a gated community. I'm not opposed to gated communities, and the City is also working on additional low and moderate income housing. However, in this case it is the Ukiah community whose tax dollars would pay for undergrounding plumbing and utility lines up to this area for the benefit of a few in a higher income category. And, who would pay for the maintenance of the 150,000 gal. water storage and fire facilities tank, pump, and well? It would be more appropriate to plan this gated community in a non-WUI area with a lower fire hazard zone rating where wild lands are not being developed.

In 2005, the Mendocino County Fire Safe Council (MCFSC) co-sponsored a report, the Mendocino County Wildfire Protection Plan. On page 86 in reference to the western hills of Ukiah, the report states the following:

"These hills have experienced large-scale fires since the turn of the century, with major fires occurring in 1950 and 1959. The City of Ukiah's encroachment into these hills since then has created the significant probability of a very destructive wildland interface fire." (https://firesafemendocino.org/wp-content/uploads/2015/02/CWPP-FINAL.pdf)

At the most recent Paths, Open Space, and Creeks Commission (POSC) meeting, we were told there will be no infrastructure on the recreation lands, including no public bathroom facilities or parking areas for potential hikers & bikers. Who would be responsible for patrolling those areas to pick up cigarette butts and other trash, and keep transients from establishing camps?

As a Commissioner for POSC, I support protection of open space for wildlife. There is documented wildlife in the Western Hills that City Manager Sangiacomo mentioned at a POSC meeting over a year ago from footage taken on wildlife cameras. These wildlife include a mountain lion and her cub, bobcat, bear, fox, occasional coyote, many deer, and smaller mammals. In addition, Doolan Creek is a Class I watercourse that has steelhead trout and frogs, and there are Class II and Class III watercourses that likely have other aquatic species. These different wildlife species have overlapping territories and need landscape level space for their survival. I would like to see the Conservation and Recreational Lands be annexed together and retained as "Ukiah's Wildlife Sanctuary" and conserved in perpetuity. That would be a feather in the cap for Ukiah and our wildlife! Rather than further fragmenting the lands with hiking trails and e-bike paths, the accompanying noise, and recreation lands that can in the future be rezoned for housing, let's protect this area for nesting, denning, fawning, and a place for wildlife.

Sincerely,

Jeanne Wetzel Chinn, M.S. Commissioner, POSC

May 19, 2021

TO: Michelle Irace, Planning Manager, City of Ukiah Community Development Department and Ukiah City Council Members

RE: UKIAH WESTERN HILLS OPEN LAND ACQUISITION AND LIMITED DEVELOPMENT AGREEMENT PROJECT

Here are comments and questions regarding the Draft Initial Study and Mitigated Negative Declaration (ISMND).

<u>Traffic on Redwood Avenue</u> This is a quiet cul-de-sac of approx. 20 properties.

- Additional traffic from fourteen (14) more residences would significantly negatively affect the quality of life of existing residents.
- Additional volume of traffic due to a 300+ acre Public Facility (park) accessible to the public according to Division 1, Chapter 12 of Ukiah City Code (see ISMND p. 42) would **severely** impact existing residents' quality of life. https://www.codepublishing.com/CA/Ukiah01/Ukiah0112.html
- In what circumstances are secondary access roads required by the Fire Code? Is a secondary access road available or planned for the proposed housing development?

Parking

If a Public Facility is established on the 343-acre Inside Conservation Parcels, where are its users expected to park their motor vehicles?

Utilities

Numerous statements in the ISMND suggest uncertainty that housing will be developed on the 54 acres (examples below). In view of this uncertainty, why is the City proposing to pay for extension of utilities to the site? And should this not be the future developer's responsibility?

- "The Project does not propose any residential development at this time..." (p7)
- "...sites would not be developed until an applicant submits a project site plan..." (p7)
- "However, no purchasers have been identified, and the timing of the sale and development of the properties is unknown." (p7)
- "It is unknown whether all of the single family homes, and ADUs in particular, would be developed..." (p12)

Protected Open Space

If the City is going to preserve the Outside Parcels via a Council resolution (ISMND pp 5, 42-43), why not include the Inside Parcels also? This would effectively create valuable local wildlife habitat, and perhaps allow limited public access seasonally or by permit. (As an avid hiker and mountain bicyclist, I welcome new opportunities for recreation, but do not think this project is an appropriate location for a large public park.)

Wildfire Risk

Section V 11 of the ISMND (particularly p 43) discusses how the 14 housing units would constitute a portion of the City's Regional Housing Needs Allocation (RHNA). It is my understanding that the development site lies to the west (i.e., the "wrong side") of the shaded fuel break, as well as being in a zone of highest fire risk. How can this be considered a wise location for new housing?

Thank you for your attention.

Sincerely,

Andrea Vachon 537 Redwood Ave. Ukiah, CA 95482 avachon1@mindspring.com **Ukiah City Planning Commission** 300 Seminary Drive Ukiah CA 95482

5/18/2021

Subject: Ukiah Western Hills Open Land Acquisition and Limited Development Agreement

Honorable Members,

From November 2010 to December 2020, I was the CAL FIRE Battalion Chief for the Ukiah Valley area. During this period, I was responsible for the fuel reduction efforts in State Responsibility Area of the Ukiah Valley and surrounding areas.

I write to support the Ukiah Western Hills Open Land Acquisition and Limited Development Agreement and hope to provide some history and context to the fuel reduction efforts in the western hills of Ukiah and how it relates to this project.

Beginning in 2012 I began working with representatives from the City of Ukiah and private owners to discuss, plan and reduce the fire hazard and improve public safety in the Ukiah Valley. The westside was chosen for several reasons. There was no recent fire history, and little had been done to address the fuel loading. Access was limited with more residents in the wildland-urban-interface at risk. The western hills were nearly inaccessible to firefighting resources.

In the subsequent eight years we planned, funded and completed multiple projects that were too big for any one individual to complete on their own and met the standard of 'good for the community'. Through these projects multiple access routes have been developed for firefighting vehicles to use during a fire, landing zones constructed for helicopters to land, 435 acres of prescribed burn were completed, twelve miles of fire breaks constructed in 2015 and again in 2018. Nine miles of shaded fuel breaks were cut from Low Gap to Highway 253 continuing the work completed in 2002 and 2004.

These accomplishments were the result of three levels of government; City, County and State, dropping boundaries and jurisdictions, working in concert on a singular goal to reduce the risk of a catastrophic fire that have become all too frequent in the State. The fourth critical component that made it all possible was the property owners that allowed the work to be completed for the good of the community. The common denominator was the conclusion that vegetation fires were now a Ukiah community problem, not an individual problem, that put the entire community at risk.

Among the nearly one hundred properties that participated, one of the most critical properties is the "Hull Properties". From a firefighter perspective, they are kind of a key in middle that holds the three elements of the prevention work together- fire breaks, fuel breaks and prescribed burning. The Hull Properties provide access to the top of the western hill of Ukiah for fire resources that did not exist prior to 2018. This property is one of the few bisecting fire breaks, natural or man-made, on the western side of Ukiah. The roads and fire breaks are the foundation for future prescribed burns that reduce the fuel loading on the hills that have not burned since the late sixties.

All the work done since 2002 needs to be maintained and the work continue. I believe that the best way to maintain the roads, continue fuel reduction projects and reduce the risk of a catastrophic fire in Ukiah Valley, to have the City of Ukiah acquire the Hull Properties. The consolidation of the parcels under City guidance will allow for a single entity to manage the fuel reduction work, manage the watershed and reduce risk to the community.

It is my opinion that the proposed mid-slope development of the parcels would not add any additional risk to the community and may even reduce risk. There are many narrow, steep streets on the west side of Ukiah that present far greater risk due to development without wildland fires in mind. This development would benefit from the knowledge and experience in the current fire environment. Developed parcels are more likely to be maintained versus being converted to open space and dependent on the CAL FIRE funding and time to maintain.

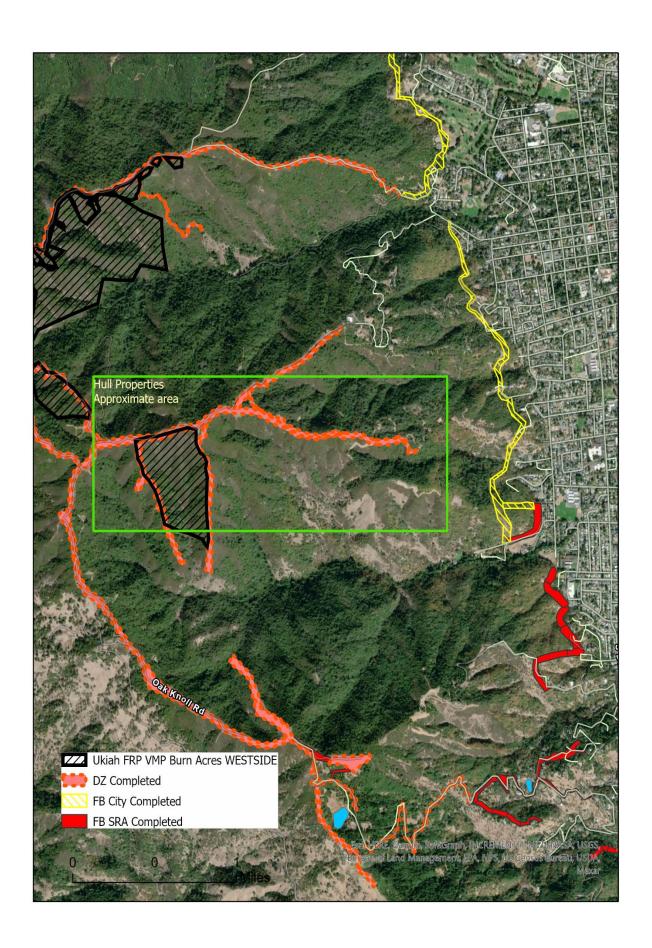
A homeowner would have a vested interest to maintain the property to a defensible space standard. Any improved road surfaces in the development would provide a permanent fire break and development of a water system could be critical to fire extinguishment on the west side of Ukiah. This development could be a model for the future that combines modern pre-fire planning with rural development at the landscape level expanding the current shaded fuel break.

There will be challenges and new responsibilities with annexation and I would hope the City would adopt road and clearance standards like PRC 4290 and 4291 for any development off the valley floor. The City would become the stewards for a large portion of the western hills and would be challenged to manage it appropriately. Based on my interaction with the City of Ukiah over the years and the community attention and concern, I believe the City is up to the task and I appreciate a new, local approach. We must think outside the box find new ways to engage at all levels to change the trend of the fires.

It is critical that the work to reduce the risk of a catastrophic fire continue to be a top community priority and worked on at the community level, not at the individual parcel or owner level. It is not realistic to expect individual owners to maintain what has been done. The City acquiring the Hull Properties will keep the western hills fuel reduction a viable community level project and will provide the best chance of continued success.

Thank you for your time and please do not hesitate if you have any question.

Michael Maynard



From: <u>EMILY THOMAS</u>

To: <u>Kristine Lawler</u>; <u>Michelle Irace</u>

Subject: Proposed Western Hills Annexation and Development

Date: Wednesday, May 19, 2021 1:46:24 PM

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Subject: comments of proposed Western Hills annexation

Date: May 19, 2021

TO: Members of the Planning Commission & City Council Members

My name is Sharron Thomas. I am a neighborhood representative on the Western Hills FireSafe Council, and the proposed Western Hills annexation was a topic of discussion at our recent meeting.

California is now headed into another drought, and the fire seasons over the last few years keep exceeding previous records. The proposed annexation includes 7 parcels for residential development, allowing up to 14 new homes. Emerging fire safe understanding suggests this kind of Wildland Urban Interface development is bad public policy, very risky for the potential home owners, and expensive for the community trying to protect that property.

Historic fires in the area burned down to the valley floor as far as Todd Grove Park in the 1950's. There is no reason to believe that the projected development wouldn't be completely destroyed by such fires happening in the future. The projected development is to the west of the recently completed Shaded Fuel Break, putting it in the expected sacrifice zone. The single road access will be a problem in a fire emergency, and will likely violate emerging CalFire regulations. Turnouts are unlikely to mitigate congestion for fleeing residents in such an emergency.

I urge you to take a serious look at the fire hazard being created, and revise the plans.

Sincerely,

Sharron Thomas

May 20, 2021

Dear Ms. Irace and members of the City of Ukiah Planning and Building Department,

I am writing to express my concerns and questions regarding the Ukiah Western Hills Open Land Acquisition and Limited Development Agreement Project. I have been a resident of Redwood Avenue for 11 years. During the last 4 years, I have seen many changes to our neighborhood.

The road that extends from the end of Redwood Avenue (first graded in 1960 per the draft study) should never have been constructed. It is overly steep, approaching slopes of 30% for much of its length. I realize that much of what has occurred up to this point in time was under Mendocino County's jurisdiction and we are now stuck with their poor planning. When I first saw this road, it was overgrown with vegetation, much of it native grasses, shrubs and forbs. The road bed was stable due to the vegetation that prevented erosion. When the new property owners started grading the road, there was significant erosion, sometimes resulting in mud running down Redwood Avenue and often resulting in significant mud on the road tracked by vehicle tires. The topography in this area prevents road widening or contouring to decrease the steepness of the road bed. It also prevents best practices in disconnecting the hydrology from road to creeks.

Redwood Avenue is in a small canyon that traps dust and smoke. There have been several times that I've looked outside, or have been returning home, and thought that the canyon was on fire only to realize that dust was thick in the air from travel on the dirt road. Burning in the lower canyon likewise results in smoke trapped between the ridges and there have been winter days when I'm sure our air quality and the ash floating in the air was as bad as some of our worst summer wildfire days. Any plans should acknowledge this aspect of the topography. What will be the regulations for burning on the lower elevations of annexed properties? What will be done to enforce speed limits to decrease dust? The study indicates that with development, the first ½ mile of the road would be paved, but I'm not sure how much activity will continue on the road before that would happen.

Steep topography increases the noise from vehicles traveling up the road. Noise is likely amplified by the encompassing ridges, but I think it is mostly the result of the low gearing needed to go up the steep hill. Trucks are often loud enough to wake us up at night. I am not sure how this can be mitigated. Traffic on narrow, short Redwood Avenue is already surprisingly heavy. I am disappointed to see plans that will cause an increase. When I first moved here, children commonly played on the street and it felt safe for them to do so.

The CEQA study indicates that the increased costs of providing fire and police coverage will be covered by development fees. I wonder about the logistics of the coverage when this will essentially be a locked gate community located on a very steep, very narrow road? I don't think we have a precedent for this in Ukiah?

Included in the Energy and Green House Gas Emission discussions in the study should be the consideration that the development will encourage vehicle fuel consumption due to the location of the housing. I disagree with the statement in the study that "The assumed low-density development pattern is consistent and contributes to the rural 'small town' character of the Ukiah Valley."

I encourage the City to complete the botanical studies as planned. The study states that at least one more site visit was recommended. I recommend that this be completed before CEQA is finalized. That may mean waiting another year as many plants bloomed early this year and have already withered.

There are year-round springs adjacent to the road and I have heard that there are others in the area. We have found giant pacific salamanders on our property that must be residents of the springs. I don't think the salamanders are a protected species but they are very unusual in the Ukiah Valley. I have found native snails that I think are also unusual, if not protected, and I wonder what other species might be residents of these springs? I hope the biological surveys included the areas around the creek drainage.

I worry about enforcement of some of the practices recommended in the report. In the last few years, I have seen trees removed during nesting periods without nesting surveys and wildlife corridors fenced; 2 practices that the study states will be prohibited.

The unnamed creek drainage that runs along Redwood Avenue should be treated as a wildlife corridor and a seasonal creek. The springs along the creek are an important water source for wildlife. I have this drainage affected by sediment flows from improper grading, poor culvert placement, bright lights, tree removal in the creek corridor, and recently, fencing of the creek, prohibiting wildlife passage. I am concerned that these trends will continue if there is not educated oversight. Some of this has been on county land and some within the city limits.

I believe this project has many desirable aspects if implemented as planned, primarily in protecting the views of western hills as well as protecting open space and watersheds. I recommend that information about the project be presented in a form that will be easier for the public to understand, with pros and cons transparently written out. I sincerely believe that if development is inevitable, it will be better managed by the City of Ukiah than the County of Mendocino while at the same time believing that the area is unsuitable for road building and development and that the county should never have allowed it to proceed.

Thank you for your consideration,

Andrea Davis 607 Redwood Ave Ukiah, CA 95482 From: Kristine Lawler

To: <u>Michelle Irace</u>; <u>Maya Simerson</u>

Cc: <u>Craig Schlatter</u>

Subject: FW: Western Hill Development

Date: Thursday, May 20, 2021 11:22:14 AM

From: Margo Frank <margo@margofrank.com>

Sent: Thursday, May 20, 2021 11:04 AM

To: Kristine Lawler <klawler@cityofukiah.com> **Subject:** Fwd: Western Hill Development

Begin forwarded message:

From: Margo Frank < margo@margofrank.com >

Subject: Western Hill Development Date: May 20, 2021 at 8:48:36 AM PDT

To: lauraem@sbcglobal.net

Cc: mshilliker@comcast.net, roody@pacific.net

Dear Ukiah Planning Commission Members,

I am at a loss to understand how the Ukiah Planning Department could even consider building homes with only one egress/access route in the Western Hills at this time. We know that this area is at high risk of fire devastation. Having homes in a gated community in heavily wooded hill land seems incredibly short-sighted.

As the planet warms and droughts in the West become the norm, we will all be at risk. When the City builds housing in vulnerable areas with only one way out, we mislead home purchasers, implying they will be safe. I also do not understand why this development would be a gated community, one that shouts "We are special, we need protection from the rest of Ukiah".

Please do not approve this development. If I am correct that the current landowner is demanding this development in order to create/donate the nature conservancy. parkland in the Western Hills then we are all being held hostage by him.

I urge you to look at the bigger picture, to consult with local fire chiefs before seriously considering approval of this project.

Thank you for serving on the Planning Commission.

Margo Frank 180 Gardens Ave. Ukiah, CA. 463-1834 From: Kristine Lawler
To: Michelle Irace

Subject: FW: cc-ing you my note to the planning commission

Date: Thursday, May 20, 2021 11:46:30 AM

From: Heather Seggel < heatherlseggel@gmail.com>

Sent: Thursday, May 20, 2021 11:26 AM

To: Kristine Lawler <klawler@cityofukiah.com>

Subject: cc-ing you my note to the planning commission

Ms. Lawler,

I should have copied you on this at the time, but here it is, for inclusion in the public record of comments. Thanks very much,

Sincerely, Heather Seggel

From: Heather Seggel < heatherIseggel@gmail.com >

Date: 5/20/21 6:36 AM (GMT-08:00)

To: <u>lauraem@sbcglobal.net</u>, <u>mshilliker@comcast.net</u>, <u>roody@pacific.net</u>

Subject: western hills development

Dear members of the planning commission,

I'm writing to voice my concern about a planned development in the western hills of Ukiah. While I know the need for housing is dire, I have also lived through more stress and peril than I ever thought possible due to the wildfires that have ravaged our county. The location of this development seems like a double-whammy of negatives-it's beyond the reach of our fire breaks and in the path of potential fires, which means resources that can be used to save more populated areas will have to choose what to prioritize in the very literal heat of the moment. Let's create housing in areas that are easier to protect, and let the land rest where and whenever we can.

Thanks for your consideration, Heather Seggel 306A W. Church St Ukiah CA 95482 707-467-9067 From: Christopher Watt
To: Michelle Irace

Subject: Fwd: Western Hills Open Space / Land Development Agreement

Date: Thursday, May 20, 2021 12:36:50 PM

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Michelle - see below. Another comment for you. -Chris

Sent from my iPhone. Forgive the brevity, typos and lack of nuance.

Begin forwarded message:

From: Thomas Hunt <thomashuntpe@gmail.com>

Date: May 19, 2021 at 9:11:50 AM PDT

To: mirace@cityofukiah.org

Subject: Western Hills Open Space / Land Development Agreement

Michelle- Here are some additional comments prepared as a local resident in the vicinity of this project:

- 1. The proposed IS/MND appear to not comply with the criteria for lot line adjustments is that each qualifying parcel of a lot line adjustment must have a recorded certificate of compliance that the lot is a viable conforming lot, and was created prior to the Subdivision Map Act of in compliance with the Subdivision Map Act. To qualify for a Certificate of Compliance the existing parcel has to comply with Map Act and local development ordinances. The reconfiguration of parcels using the lot line adjustment method becomes a violation of the Subdivision Map Act if greater than Four parcel reconfigurations (LLA) are performed. A development of this nature should be required to prepare a tentative subdivision map, preliminary engineering of the access road, lot layout in conformance with the hillside slope ordnance, and provide a slope analysis study in conformance with the Hillside ordinance using accurate topographic mapping. If the proposed project is to be approved a final subdivision map would be required per the California Subdivision Map Act and improvements would be in conformance with subdivision standards.
- 2. The proposed IS/MND appears to lack an analysis of the geologic slope stability

effects of a new road that meets Fire Safety Road Standards for width and turning radius, turnouts, and turnarounds on the existing hillside slopes. If the Road is to be private how is it to be maintained, or would the City except the roadway for public use and maintenance.

- 3. The proposed IS/MND does not address whether the existing City Utilities provide adequate sewer and water capacity for the proposed homes. The IS does not identify "Who" would own and maintain the water storage tank and booster pump(s) stations to serve the development, or what fire agency will protect these homes.
- 4. The proposed IS/MND does not address the following issues: The clearing limits of the Fire Safety zone around the homes, it is typically recommended by CalFire to clear a 100 foot radius, that is approximately a minimum of 1.2 acre per home. The proposed homes sites, plus roads, would clear over 10 acres of the last remaining unimprovement scenic hillside area left surrounding the Ukiah valley, and convert the scenic view of the native trees into homes and roads. This same area burned approximately 60 years ago in a wildfire and will continue to be a hazardous area even if developed. Allowing this development regardless of the fire safe clearing requirements around these proposed buildings would be unsafe for future residences, including the existing residences at the toe of the hillside, and irresponsible of a public agency to allow. Once you build homes in this area it will become increasing more difficult to control fuel loads because of the potential danger to the homes. The potential increase in the drainage runoff and erosion impacts of converting 10 plus acres of vegetated watershed into roof tops, driveways, roads and areas of cleared vegetation is not considered in the IS as any increase in runoff will end up in Mendocino creek drainage and the Redwood Avenue. The impact on these drainages may be significant to require the repair of failing culverts particular on Mendocino Creek at Mendocino Drive, the capacity of the Redwood Creek downstream drainage structures should analyzed as most of this drainage has be placed in culverts east of Helen Avenue.

Thank you for considering these issues.

Sincerely,

Thomas Hunt 420 Cochrane Ave Ukiah Ca 95482

Email: thomashuntpe@gmail.com

Cell: 707-499-0152

From: Steve & Jean Lincoln
To: Michelle Irace

Subject: opposition to more residences high in Ukiah"s western hills

Date: Thursday, May 20, 2021 2:10:23 PM

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

To: Ukiah City Planning Commission

We wish to express our strong oppostion to the proposed residential property parcels on the Hull property in the western foothills. It is our very great concern that it is simply too dangerous to build more residences in this area which is ripe for burning - especially as we experience an increase in the length of wildfire season with increased temperatures and reduced soil and vegetation moisture. We live at the base of these hills and, every day, see the tremedous fuel load that has accumulated on them since the last wildfires there in the 1950's. Not only would these new homes be in a very vunerable position with the shaded fuel break downhill from them, but, during a wildfire, they will take a large amount of firefighing efforts at a time when the higher density of homes downhill will probably also need much firefighting effort.

We trust you to make the wisest decision for Ukiah.

Thank you for your consideration,

Steve and Jean Lincoln 104 North Highland Ave, Ukiah From: <u>lantosca, Catherine M.@Waterboards</u>

To: <u>Michelle Irace</u>

Cc: Filak, Jordan@Waterboards

Subject: Regional Water Board Comments: City of Ukiah Western Hills Open Land Acquisition & Limited Development

Agreement

Date: Thursday, May 20, 2021 2:53:38 PM

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Dear Michelle Irace,

Thank you for providing staff of the North Coast Regional Water Quality Control Board (Regional Water Board) the opportunity to comment on the Draft Initial Study/Mitigated Negative Declaration (IS/MND) for the Ukiah Western Hills Open Land Acquisition & Limited Development Agreement Project, SCH #2021040428. We offer the following comments based on our review of the IS/MND.

Our comments are focused on the planned infrastructure improvements and construction components of the proposed project, including plans to pave/improve existing roadways, construct new roads for access to the development parcels, extend underground utilities, and construct a City water tank, and how these activities might impact waters of the state.

California Water Code defines waters of the state as "any surface water or groundwater, including saline waters, within the boundaries of the state" (Water Code §13050 (e)). Projects that adversely impact waters of the state require permits from the Regional Water Board in the form of 401 Water Quality Certifications or Waste Discharge Requirements.

Regarding waters of the state in the IS/MND study area, the IS/MND's Biological Resources section contains information that conflicts with Attachment B, the Biological Assessment Report. IS/MND Biological Resources Discussion Section b-c (IS/MND page 25) says "no sensitive biological communities, including riparian habitat or wetlands, were observed within or immediately adjacent to the study area." However, the Biological Assessment Report (Assessment) identified six watercourses in the study area and did not definitively determine the presence or absence of wetlands in the study area.

With regard to wetlands, Assessment Section 3.4.2 Sensitive Biological Communities – Aquatic Resources states that a wetland delineation has not been performed in the study area (Assessment page 8). Instead, the Assessment referenced the United States Fish and Wildlife Service National Wetlands Inventory (NWI), which does not provide sufficient detail to determine the presence or absence of wetlands on at a property-specific level. The Assessment states that any wet areas onsite (which the Assessment defines as areas with hydrophytic vegetation and/or other hydrologic indicators) should be given the same protections as wetlands "until a wetland delineation is conducted to confirm the presence and extent of wetlands" (Assessment page 8). Please note that these hydrologic indicators are often difficult to identify during the summer and fall, particularly during a drought year. If the City of Ukiah determines that wetlands are present in the study area and that wetlands will be impacted by the project, a permit from the Regional Water Board will be required.

With regard to streams and riparian habitat, Assessment Section 5.1.2 Sensitive Biological Communities – Sensitive Aquatic Resources states that six watercourses were observed and mapped in the study area (Assessment page 16). These watercourses are depicted in the Assessment on a map titled "MCV2 Classification Map." These watercourses are considered waters of the state. The MCV2 Classification Map shows existing roads crossing several of the watercourses. The IS/MND states that the existing gravel access road will be paved to serve the future development sites, and new access roads may be constructed. Work within watercourses or in their riparian areas, e.g. installation of new culverts or replacement of existing culverts during road improvement/construction, requires permits from the Regional Water Board. If other construction activities, such as utility installation or water tank construction, will impact waters of the state, those activities will require permits too.

If you determine that the proposed project will impact waters of the state, please contact the Regional Water Board prior to starting work to obtain the required permits. Impacts to waters of the state should be avoided or minimized as much as possible, and any unavoidable impacts will require compensatory mitigation. More information about the Regional Water Board's permitting can be found on our website:

https://www.waterboards.ca.gov/northcoast/water_issues/programs/water_quality_certification/.

Thank you. Please contact me if you have any questions.

Catherine Iantosca

Environmental Scientist

Southern 401 Water Quality Certification Unit North Coast Regional Water Quality Control Board 5550 Skylane Blvd, Ste. A Santa Rosa, CA 95403

P: (707) 576-2501

E: <u>catherine.iantosca@waterboards.ca.gov</u>

City of Ukiah Community Development Department ATTN: Michelle Irace 300 Seminary Avenue Ukiah, CA 95482

May 20, 2021

Subject: Initial Study and Mitigated Negative Declaration for Western Hills Open Land Acquisition and Limited Development Agreement Project

Dear Ms. Irace,

We are very concerned about potential fire impacts from the proposed land development project in the western hills of Ukiah. The City of Ukiah would annex and acquire land for open space preservation in exchange for allowing the developer to develop seven residential parcels with the potential for two houses per parcel or 14 total houses. While the project has fire protection benefits (open space preservation), the potential for residential development raises serious fire safety concerns in the western hills of Ukiah.

The project area is in a very high fire hazard severity zone. With an increased frequency of drought conditions and impacts from climate change, the probability of a major wildland fire increases in the western hills of Ukiah. In 2005, the Mendocino County Fire Chiefs' Association, including the California Department of Forestry and Fire Protection (now Cal Fire) published a report, the Mendocino County Wildfire Protection Plan. On page 86 in reference to the western hills of Ukiah, the report states the following:

"These hills have experienced large-scale fires since the turn of the century, with major fires occurring in 1950 and 1959. The City of Ukiah's encroachment into these hills since then has created the significant probability of a very destructive wildland interface fire."

The parcels currently lie outside the city limits and city utilities are not available – power, sewer, water. Once annexed, the parcels will have access to city utilities with the ability for new development to connect to those utilities, increasing the likelihood for future residential development in the western hills.

We live at the end of San Jacinta Drive and adjoin one of the parcels in the project. We are in close proximity to the project and with the increased number of wildland fires in northern California over the last several years, we are very concerned about the increased potential of a wildland fire in our area. We urge you to take a serious look at the potential fire hazard created by the proposed project and the potential for future development beyond the current project.

Sincerely,

John and Delynne Rogers,

Members of the Western Hills Fire Safe Council

Comments on the ISMND May 20, 2021

Submitted by Pinky Kushner 504 N. Oak St., Apt #1 Ukiah, CA

I thank you for allowing me to comment on the environmental assessment document for the Western Hills project.

1. For the portion of the Conservation Parcels located outside of the SOI ("Outside Conservation Parcels," consisting of approximately 296 acres), the City will ensure that they remain preserved as open space through City Council resolution or other means, rather than prezoning them PF. Proposed Parcels 8 and 10 would effectively be "split zoned"; the portion within the SOI would be prezoned PF, while the remaining portion outside of the SOI would not be prezoned, but subject to a conservation easement, or other City Council action prohibiting development and preserving it as open space.

The language in the underlined section is weak and/or unclear. The land "will be subject to ...easement or other City Council action." The document should specify that this land will be dedicated open space in perpetuity by the City. By saying it 'could be' put into a conservation easement implies that the ownership of the property will not be the City and could be a private party. Thus the city might not be gaining the proposed proposed promise of open space with approx. 640 acres, only approx 340 acres.

2. "City-owned parcels proposed for annexation are not required to be located within the City's SOI. City-owned parcels can be located anywhere in the County as long as they are less than 300 acres, owned by the City, and used for municipal purposes at the time of the annexation application."

It is not clear how this project satisfies any of those limitations. In fact it seems clear that none of the provisions are satisfied. The property that is proposed to be designated PF, will not be for municipal purposes in the ordinary legal meaning of the word "municipal." In order to be designated as 'municipal', the City should assign the area, the entire 640 acres, as a protected natural area in perpetuity. The proposed designation of PF could be changed by the current or any future City Council.

3. Leapfrog development: The City should demand a codicil to the private road access that will require that a keyed entrance gate be built on the road at the entry to the developed (housing) area and also at the distal end of the developed (housing) area. Furthermore, no third party, other than the owners of the developed housing and the City, can be given rights to trespass those two gates.

Without such a codicil, it is obvious that this proposed development will be able to leapfrog further development into the County property that lies further to the west along the roadway. These further lying parcels are designated County lands, and any development/construction will not be subject to City of Ukiah's reviews and will be without City limitations (as mentioned in the neg dec in the argument for the present annexation). It is egregious that the potential for leapfrogged development is not even mentioned in the 'neg dec.'

- 4. Aesthetics: The view shed of the City of Ukiah is unique and beautiful. Ukiah, derived from native language meaning 'deep valley,' indeeds lies in a narrow deep trough, approximately 2 miles wide and 20 miles long. Standing in the flat mid-point, one sees these 20 miles of wooded hillsides on either side. This project will affect this view in a deleterious manner, removing native vegetation, adding roads, lights and paved areas, in the south-western hills, in addition to a large 30' high water tank. This project for up to 14 dwellings, presumably large imposing houses with large, turn-around driveways, and lights, will be a significant blow to Ukiah's unique view shed. The potential damage is not "less than significant." Moreover, painting a house 'earth-tones' is not adequate mitigation for forest removal.
- 5. Forestry Resources: According to the ISMND the project should evaluate "forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board." No data have been provided. CO2 levels continue to increase in the Ukiah Valley. The removal of forests will add to the carbon increases. This effect cannot be said to be less than significant unless carbon measurements are established. In order to 'neg dec' the project, current, pre-project baseline data must be measured. The heat effect of forest removal must be evaluated.
- 6. Air Quality: The removal of forest and the on-going and continuing increase in carbon may contribute significantly to the atmospheric inversions that occur routinely in the Ukiah Valley. This issue cannot be said to be less than significant unless data about the Valley's atmospheric inversions are calculated. No data are found in the 'neg dec.'
- 7. Biological Assessment: This report is inadequate and cannot be said to evaluate the biological features of the project. At the beginning of the document prepared for the assessment, Jacoobzooms and Associates state, "A site visit was conducted on February 5, 2021. A botanical survey was conducted on March 30, 2021. Additional botanical survey results will be amended in once completed." This statement is clear—the biological assessment at the present is inadequate to support the neg. dec. Interspersed in the document, the authors admit that they did not evaluate the plants and animals sufficiently. For example, birds of interest may be nesting, but not during February; plants of interest may appear but not be observable on March 30. And so on. The neg dec is incomplete since the biological assessment has not been completed.

I believe the assessment only reviewed the 55 acres for housing development. Am I wrong? What about the rest of the acreage in the annexation project? The large acreage, described as 640 acres at one point but not consistently, has not been

surveyed. Yet the project will *allow* (some might say promote) the roadway to access not only the area proposed for development, but also the further Western Hills. This is not a mere city lot with only traffic and noise to worry about on a small acreage. The acreage of the project is almost as large as Golden Gate Park in San Francisco and deserves a thorough biological assessment done in various seasons of the year for the entire project area.

8. Fire: It appears that a portion of the area proposed for housing lies beyond a fire-break. How is it justified to propose development beyond the fire-break?

Relative to this project are the following questions for a neg dec analysis:

What is the potential for a firestorm in the Western Hills? What is the history of firestorms in the Western Hills?

What is the state of drought in the Ukiah Valley? Has this drought increased the fire potential in the Western Hills?

Does the proposed development, occurring in a naturally wooded area increase, decrease or have no effect on the potential for fires? On the potential for a fire storm?

What is the moisture content of the soil annually in the summer and fall months? Will the roadway increase or decrease the moisture content of the surrounds?

What will be the speed of the fire's path were there to be a Western Hills fire originating in the project area?

- 9. Feasibility: What is the likelihood of any home development in a fire-prone acreage in the Western Hills? Will there be fire insurance for the developers/new home-owners? How will this development project be different from the homes in Deerwood that cannot get fire insurance?
- 10. Location and site plan: The maps are inadequate and not well integrated into the context of the document. There are no topographical maps. This is in spite of the fact that the site has very steep slopes. The slopes should be described precisely with the various grades of the roadway and possible driveways included. For fire management and the water tank accessibility these data are very important in an environmental assessment. The maps should have better satellite over-lays, with more indications of where the roadway and driveways will be located, complete with fire vehicle turn-arounds, etc. The photos included in the biological assessments are described only as "to the south" or "to the west", with no indication as to geographical or topographical whereabouts.
- 11. Land Use Planning: The goal of the City of Ukiah is densification, not suburban sprawl. This project is suburban sprawl. What is the mitigation? What is the justification?

- 12. Alternatives: an EIR is required to have alternatives, including a no project alternative and other alternatives that achieve the same or equal provisions.
- a. Housing: Recently, the Ukiah Planning Department sponsored a public review of housing possibilities within the current boundaries of the City of Ukiah.

Where are the results of that review in this environmental evaluation and why don't the areas identified satisfy the needs for housing/development, even at all ends of the housing market? The Western Hills proposed project is clearly for the high end market. What is the need for high end housing in a fire prone area when those needs can be met within the existing boundaries of the City where the infrastructure improvements exist with good roads, good sidewalks, bike paths, trees, and parks?

b. Water: The water tank is said to help with supplying water to the southwestern portion of the City.

Alternative sites for the water tank must be identified, sites that are more accessible to more developed areas of south Ukiah and to a larger population of residents. The proposed site must be evaluated for efficiency and sufficiency in providing water to the urban population and for its use should a fire in south Ukiah occur, relative to other sites closer to the already built-out urban area.

MENDOCINO

Local Agency Formation Commission

Ukiah Valley Conference Center | 200 South School Street | Ukiah, California 95482 Telephone: (707) 463-4470 | E-mail: eo@mendolafco.org | Web: http://mendolafco.org

May 20, 2021

Michelle Irace Planning Manager, City of Ukiah 300 Seminary Avenue Ukiah, CA 95482

RE:

Responsible Agency Comments regarding the City of Ukiah Draft Initial Study and Mitigated Negative Declaration for Ukiah Western Hills Open Land Acquisition and Limited Development Agreement Project

Dear Ms. Irace,

We have reviewed the Draft Initial Study and Mitigated Negative Declaration for the Ukiah Western Hills Open Land Acquisition and Limited Development Agreement Project and identified the following items as a Responsible Agency related to the annexation component of the proposed project.

Further Growth Inducing Analysis for Annexation Component

In order to fully address the annexation component of the proposed project, the Initial Study needs to further analyze the change in development potential of the annexation area from current conditions.

This involves identifying and comparing the maximum development potential under current conditions (County General Plan/Zoning and Ukiah Valley Sanitation District service) and the proposed project development potential (Boundary Line Adjustment, City General Plan/Prezoning, and City services).

The proposed project development potential of 7 Single-Family Dwelling Units and 7 Accessory Dwelling Units identified for the Development Parcels appears appropriate based on the Development Agreement, and may result in an overall reduction of environmental impacts or environmental benefits from the clustered development design, when compared with the current conditions.

Since there is no development anticipated for the Noguera properties, the development potential of these parcels would be the maximum development potential under both current conditions (County General Plan/Zoning and Ukiah Valley Sanitation District service) and the proposed project (City General Plan/Prezoning and City services).

The comparison of current and proposed development potential for the Conservation Parcels may result in an overall reduction of environmental impacts or environmental benefits from long-term conservation and associated natural resource and land management activities.

Further Municipal Service Analysis for Annexation Component

In order to fully address the annexation component of the proposed project, the Initial Study needs to further analyze the provision of municipal services.

This involves a comparison of current system capacity, anticipated service demand of the proposed project based on development potential, and the City's ability to serve the proposed project based on

available capacity and project demand. While not necessarily applicable to the proposed project, in situations where service expansions or improvements are needed to address the proposed project, the potential environmental impacts of such expansion and/or improvements should also be analyzed.

Prezoning

The Outside Conservation Parcels are subject to Prezoning pursuant to GOV §56375(a)(7) and should be addressed in the Initial Study.

Concurrent Detachment

Please modify the proposed project to include detachment of the annexation area from the Ukiah Valley Sanitation District, to address jurisdictional overlap and duplication of municipal service issues, and potentially County Service Area 3 if duplication of municipal services is applicable.

Based on interest expressed from City of Ukiah staff in support of a proposed Ukiah Valley Fire District annexation of City Limits, per LAFCo Pre-application No. P-2020-03, concurrent detachment from the Ukiah Valley Fire District does not appear appropriate at this time.

By addressing the above items in the Initial Study, the Mendocino Local Agency Formation Commission will be able to rely on the City's CEQA Determination in consideration of the annexation proposal. Please note that we are available to assist in modifying the Initial Study to address these items.

Please feel free to contact me if you need additional information or have any questions.

Sincerely,

Uma Hinman Executive Officer

Cc: Craig Schlatter, City of Ukiah Community Development Director

From: Kristine Lawler

To: Michelle Irace: Maya Simerson

Subject: FW: ISMND and proposed project

Date: Friday, May 21, 2021 7:44:27 AM

From: Helen Sizemore <helensize@gmail.com>

Sent: Thursday, May 20, 2021 9:55 PM

To: Kristine Lawler <klawler@cityofukiah.com>

Cc: Laura Christensen sbcglobal.net; Mark Hilliker <mshilliker@comcast.net;

roody@pacific.net

Subject: ISMND and proposed project

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Kristine - please forward to City Council Members. TY

To the Planning Commission and the City Council:

I am very concerned to hear about the development of a small gated development in the western hills, at Redwood Avenue.

There is a housing shortage in California and in Ukiah. It would be so much more appropriate to construct condominium

housing. Your future vision must consider our climate changing, drought emergency prone times.

Continuing the economic and

cultural division in our town is not vision it is backward thinking.

A gift of land to the city does not have to be given back to the wealthy. The clustering of a condo project would be more easily defended from fire threat and be less damaging to the hillside when putting in utilities.

Ukiah can be the change we need. Single family housing is so last century.

Thank you,

Helen Sizemore

ORDINANCE NO. 1217

UNCODIFIED ORDINANCE OF THE CITY COUNCIL OF THE CITY OF UKIAH TO PREZONE CERTAIN PARCELS IN ASSOCIATION WITH THE WESTERN HILLS OPEN LAND ACQUISITION AND LIMITED DEVELOPMENT AGREEMENT PROJECT.

The City Council of the City of Ukiah hereby ordains as follows: SECTION ONE. FINDINGS

- 1. The City proposes to acquire and annex approximately 707 acres total, including the "Hull Properties" (APNs 001-040-83, 157-070-01, 157-070-02, 003-190-01, 157-050-09, 157-060-02, 157-050-02, 157-050-04, 157-050-01, 157-030-02, 157- 030- 03, 157-050-11 & 157-050-12), the "Noguera Properties" (APNs 003-190-09 & 003- 110-90) and the City-owned "Donation Parcel" (APNs 157-050-03,157-060-003) in the Western Hills for open space preservation, while allowing the potential for future low-density residential development on the approximately 54 easternmost acres ("Development Parcels"), consistent with existing development in the Western Hills within the City of Ukiah limits; and
- 2. Government Code Section 65859 allows the City to adopt a zoning district for land outside of the city limits in anticipation of annexation and development, i.e. prezone.
- 3. Government Code Section 56742 allows the City to annex parcels that are not located within the City's Sphere of Influence ("SOI"), provided that those parcels are located in the County of Mendocino, less than 300 acres, owned by the City, and used for municipal purposes at the time of the annexation application.

SECTION TWO.

The City Council of the City of Ukiah hereby ordains that:

- 1. The City will apply to annex approximately 640 acres total referred to as the "Conservation Parcels", for open space and conservation. The Conservation Parcels will be pre-zoned with a Public Facilities (PF) zoning designation, which encompasses lands within the City that contain open space and parks, as well as other public facilities. Approximately 343 acres of the Conservation Parcels are located within the City's SOI and 296 acres outside of it.
- 2. The proposed Development Parcels (totaling approximately 54 acres) will be zoned to Single-Family Residential-Hillside Overlay District (R1-H) with a General Plan Designation of Low Density Residential (LDR), consistent with adjacent City zoning and development patterns in the Western Hills. In addition, the Noguera Properties will be zoned R1-H for consistency with surrounding zoning and land uses.
- 3. A map of the affected territories is set forth in Exhibit A, and the parcel configuration, intended use, and proposed prezoning of the affected territories are set forth in Exhibit B, attached hereto and by reference incorporated herein.

SECTION THREE.

1. Publication: Within fifteen (15) days after its adoption, this Ordinance shall be published once in a newspaper of general circulation in the City of Ukiah. In lieu of publishing the full text of the Ordinance, the City may publish a summary of the Ordinance once 5 days prior to its adoption and again within fifteen (15) days after its adoption.

2. Effective Date: Section 2 and 3 of this ordinance shall become effective as of the date that the annexation of the Conservation Parcels, Development Parcels, and Noguera Properties becomes final.

Introduced by title only on September 15, 2021, by the following roll call vote:

AYES:

Councilmembers Rodin, Duenas, Brown, and Mayor Orozco

NOES:

ABSENT: Councilmember Crane

ABSTAIN: None

Adopted on October 6, 2021, by the following roll call vote:

AYES:

Councilmembers Duenas, Brown, and Mayor Orozco

NOES:

ABSENT: Councilmembers Crane and Rodin

ABSTAIN: None

ATTEST:

Kristine Lawler, City Clerk

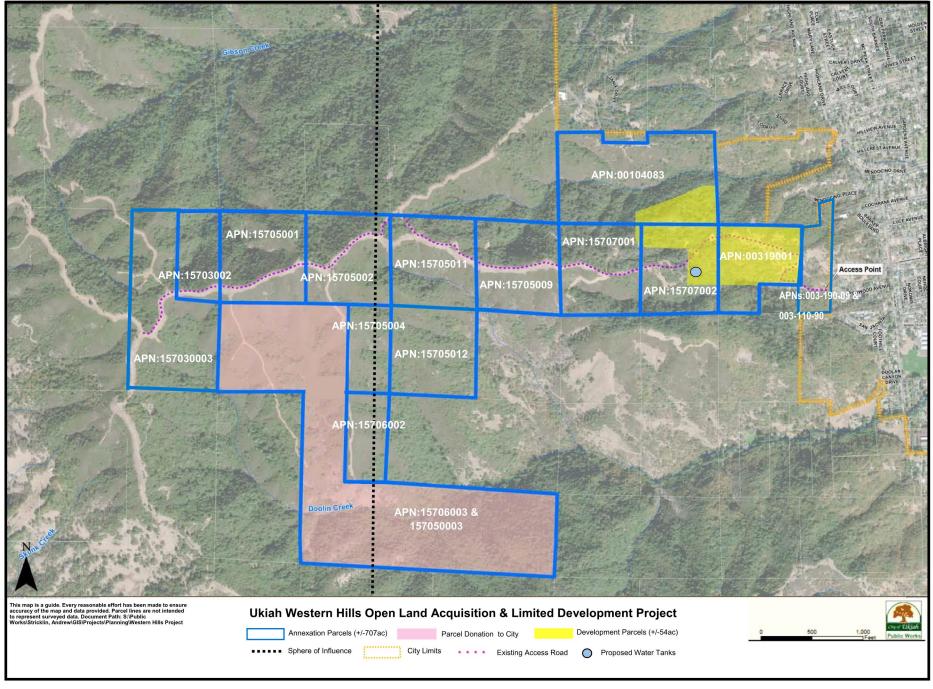


Figure 1
Location Map

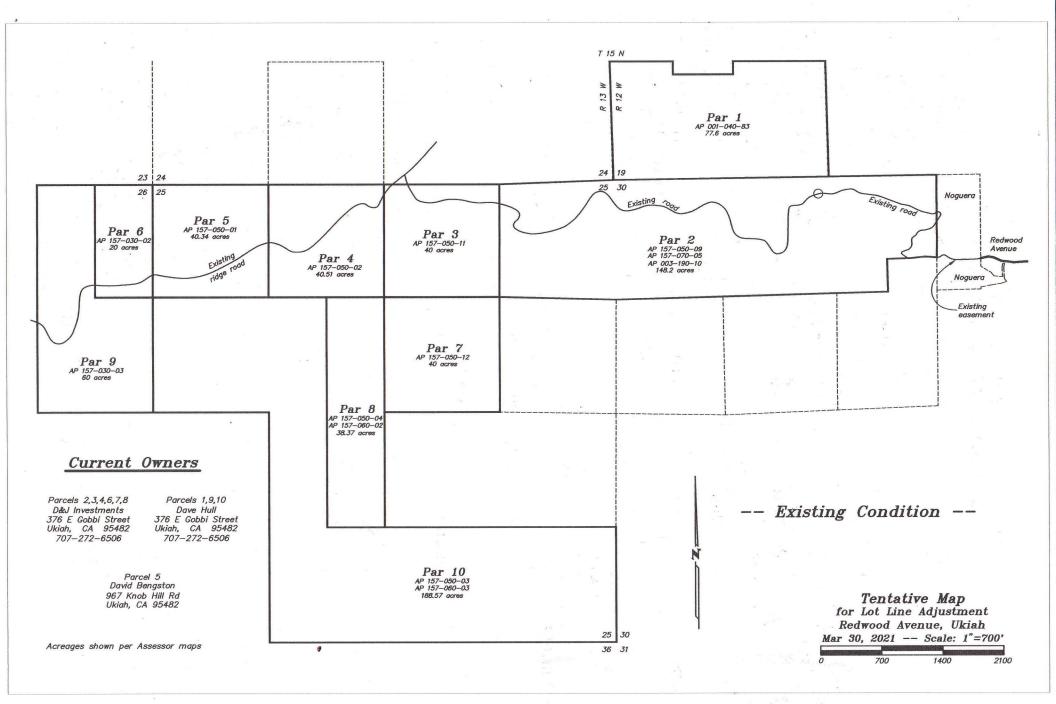


Figure 2
Existing Parcel Configuration

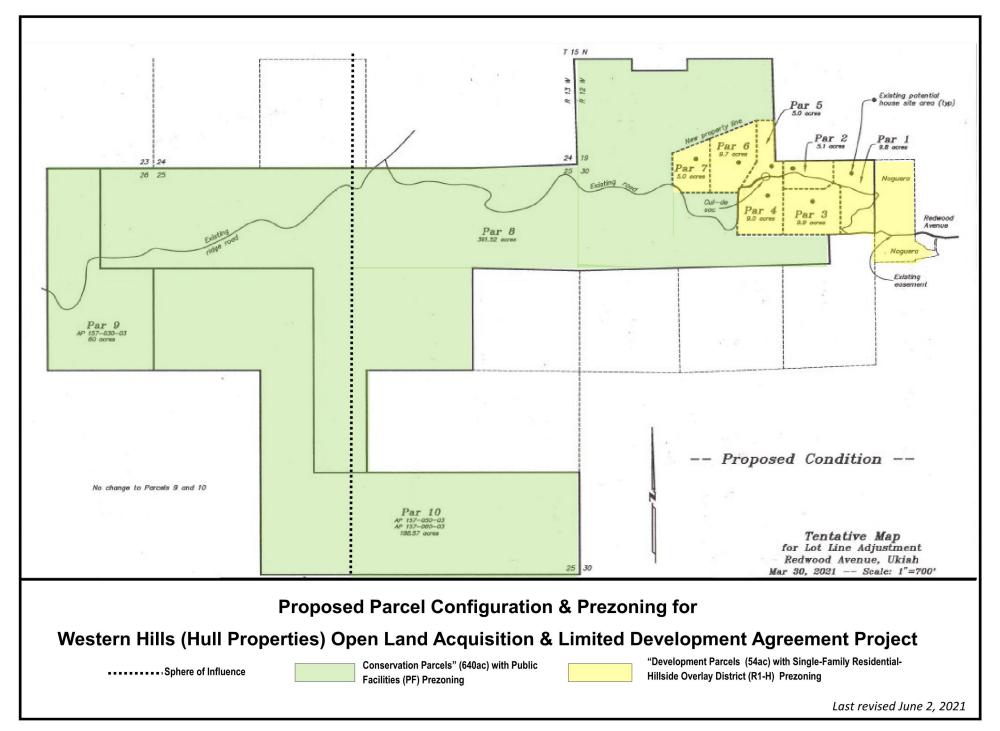


Figure 3 Proposed Parcel Configuration & Prezoning

EXHIBIT B- ANNEXATION PARCELS AND PREZONING

Assessor's Parcel Number (APN)	Existing Size (+/acres)	Proposed Size (+/-acres) through Lot Line Adjustments ¹	Resulting Parcel Configuration, Intended Use and Proposed Prezoning	
001-040-83	77.6	9.8	Parcel 1 will become a Development Parcel intended for single family housing and prezoned R1-H.	
157-070 01, 157-070-02, 003-190-01 & 157-050-09	148.2	5.1	Parcel 2 on Existing Conditions Tentative Map, contains several APNs but is one legal parcel (149 acres total). This parcel will become a Development Parcel intended for single-family housing and prezoned R1-H.	
157-050-11	40.0	9.9	Parcel 3 will become a Development Parcel intended for single-family housing and prezoned R1-H.	
157-050-02	40.5	9.0	Parcel 4 will become a Development Parcel intended for single-family housing and prezoned R1-H.	
157-050-01	40.3	5.0	Parcel 5 will become a Development Parcel intended for single-family housing and prezoned R1-H.	
157-030-02	20.0	9.7	Parcel 6 will become a Development Parcel intended for single-family housing and prezoned R1-H.	
157-050-12	40.0	5.0	Parcel 7 will become a Development Parcel intended for single-family housing and prezoned R1-H.	
157-050-04 & 157-060-02	38.7	391.5	Parcel 8 will become a Conservation Parcel and be prezoned PF. The proposed water tanks will be placed on this parcel within the existing water tank pad site (on existing Parcel 2).	
157-030-03	60.0	60.0	Parcel 9 is an Conservation Parcel and will prezoned PF.	
157-030-03 & 157-060-03	188.5	188.5	Parcel 10 (City-owned "Donation Parcel") will become a Conservation Parcel and will be prezoned PF.	
"Noguera Properties" 003-190-09 &	10.00	40.00	These parcels contain the existing access road that will be improved but remain under private ownership. It will be included in the annexation proposal and prezoned R1-H, consistent with surrounding zoning and land uses, but no	
003-110-90	10.20 4.14	10.20 4.14	development is proposed; this parcel is not included in the Lot Line Adjustment.	
TOTAL	+/- 707 acres			

¹ Resulting parcel configuration is subject to change but the Development Parcel area footprint and number of resulting parcels will remain the same.

DRAFT FINDINGS TO ADOPT AN INITIAL STUDY/MITIGATED NEGATIVE DECLARATION AND FOR APPROVAL OF THE UKIAH WESTERN HILLS OPEN LAND **ACQUISITION & LIMITED DEVELOPMENT AGREEMENT PROJECT.** AND ORDINANCE FOR PREZONING

FILE NO.: 20-5915.

The Community Development Department's recommendation for approval of an Initial Study/Mitigated Negative Declaration (SCH No. 2021040428) and conditional approval of the Ukiah Western Hills Open Land Acquisition & Limited Development Agreement Project ('Proposed Project") including: 1) Acquisition and annexation of approximately 707 acres; 2) Prezoning the Conservation Parcels to PF and Development Parcels to R1-H (and associated Zoning Map and General Plan Map Amendments upon approval of the annexation application; 3) Sequential Lot Line Adjustments; 4) Development Agreement between Hull Properties and the City of Ukiah: and 5) Associated site improvements including extension of utilities, road improvements, and construction of the water storage tank(s), is based in part on the following findings, in accordance with UCC §9267 and §8297, as well as the Subdivision Map Act, Section 65895 of the Government Code and CEQA Guidelines Section 15074.

- 1. The proposed parcels for annexation would be contiguous to existing City of Ukiah city limits, in accordance with LAFCo policies and the Government Code Section 65895.
- 2. In accordance with LAFCo-adopted procedures, and as required under the Development Agreement, the City will submit its annexation application to the Mendocino County Local Agency Formation (LAFCo), after it acquires title to the Annexation Parcels, and upon City Council approval of the Proposed Project. As further described in the Staff Report, the Proposed Project would be consistent with the City's General Plan Zoning Code, the County's Ukiah Valley Area Plan, as well as the Government Code and LAFCo policies related to annexation and prezoning. Although the City's General Plan and County's Ukiah Valley Area Plan (UVAP) do not contain specific policies related to prezoning, they do contain goals and policies that strive for orderly, clustered development, and support the City's and County's Regional Housing Needs Allocation (RHNA) goals and conservation of open space. The City's 2019-2027 Housing Element includes Goal H-5 and Policy 5-1 which seek to support future housing needs through annexation efforts that lead to orderly expansion of growth. Similarly, the County's 2019-2027 Housing Element includes Policy 1.3 and Actions 1.3a through 1.3d that strive to work cooperatively with cities within the County on regional housing, support annexation applications to the Mendocino LAFCo from incorporated cities for annexations of contiguous lands etc.
- 3. The proposed Development Parcels (totaling approximately 54 acres) proposed for annexation are located within the '95 General Plan's Unincorporated Planning Area, as well as the current UVAP/SOI boundary, and are consistent with the density and intent of the Low Density (LDR) land use designation and Single-Family Residential-Hillside Overlay Zoning District (R1-H) zoning.
- 4. Because the portion of the Conservation Parcels within the City's current SOI (343 acres) are within the City's '95 General Plan Unincorporated Planning Area, the proposed annexation

Findings

and 'PF" prezoning (with a P General Plan land use designation) is consistent with the intent and land uses identified within the '95 General Plan. In addition, the City can utilize its Parks Ordinance (Division 1, Chapter 12 of the Ukiah City Code) to provide rules governing City and public use of "PF" zoned property. The approximately 296 acres of Conservation parcels located outside of the SOI proposed for annexation and PF prezoning are consistent with Government Code Section 56742 that states city-owned parcels proposed for annexation can be located anywhere in the County, as long as they are less than 300 acres, owned by the City, and used for municipal purposes at the time of the annexation application.

- 5. In accordance with UCC Section §9267, Prezoning, the City may prezone unincorporated territory adjoining the City for the purpose of determining the zoning which will apply to such property in the event of subsequent annexation to the City. Prezoning of the parcels will also require a Zoning Map and General Plan Map Amendment upon approval of the annexation application by LAFCo.
- 6. To achieve the resulting proposed parcel configuration of up to seven Development Parcels. the Project includes sequential Lot Line Adjustments in both the City and County jurisdictions. in accordance with the Subdivision Map Act. Although Development Parcels 1-3 may be developed prior to annexation, they will be developed in accordance with R1-H regulations through Declaration of Covenants, Conditions, and Restrictions (CC&Rs). Review of the Lot Line Adjustments will be conducted by the City Engineer prior to recordation of the final maps to ensure that all development standards contained within the R1-H zoning district are met.
- 7. Although the final configuration of the Development Parcels may vary slightly, the footprint of the resulting configuration for the Development Parcels (54 acres) and number of parcels will remain the same. The Lot Line Adjustments will not create a greater number of parcels than existed prior to the adjustments and will not result in an increase in the number of nonconforming parcels, nor will it increase the nonconformity of any parcel.
- 8. The project was evaluated by various departments and agencies including (but not limited to) the City Engineer, City Building Division, City Department of Public Works, the County of Mendocino, Ukiah Valley Fire Authority, California Department of Forestry and Fire Protection, etc. and conditions of approval have been incorporated to ensure public safety and access.
- 9. The potential development of seven single-family residential units and associated accessory dwelling units is compatible with surrounding land uses and will not be detrimental to the public's health, safety, and general welfare. All future single-family residential development within the City's jurisdiction will be subject to the City's development regulations and discretionary review, as outlined in the Hillside Overlay Zoning District, as well as the mitigation measures identified in the Initial Study and Mitigated Negative Declaration for the Project.
- 10. In accordance with Sections 15070 through 15075 and Appendix G of the California Environmental Quality Act (CEQA) Guidelines, the Planning Division prepared an Initial Study and Mitigated Negative Declaration (SCH No. 2021040428) for the Proposed Project.
- 11. In accordance with CEQA Guidelines Section 15073 the ISMND (State Clearinghouse No. 2021040428) was circulated for public review and comment on April 16, 2021 through May 20, 2021.

¹ The Subdivision Map Act excludes from its requirements lot line adjustments "between four or fewer existing adjoining parcels" if there is no resulting increase in the number of parcels. Government Code § 66412(d)

- 12. Because the revisions and clarifications summarized within the Reponses to public comments document and others made to the Final Draft ISMND (dated August 16, 2021) are for clarification purposes and/or do not result in a new significant effect that was previously not analyzed within the Draft ISMND, recirculation of the ISMND is not required (CEQA Guidelines Section 15073.5(a)).
- 13. The ISMND found that Project components including the acquisition, annexation, and prezoning of parcels (and associated Zoning Map and General Plan Map Amendments), in addition to the Lot Line Adjustments, would not result in impacts to the physical environment. However, construction and ground disturbing activities associated with the Development Agreement, future residential development, and site improvements could result in direct significant impacts to Air Quality, Biological Resources, Cultural/Tribal Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Utilities and Service Systems, and Wildfire. However, mitigation measures identified within the aforementioned sections and incorporated into the Mitigation Monitoring Repotting Program would reduce all impacts to less than significant. Tribal consultation was conducted and completed with Pinoleville Pomo Nation in accordance with Assembly Bill 52.
- 14. Based on information contained with the Staff Report, ISMND, public comments, and the whole record there is no substantial evidence that the Project will have a significant effect on the environment.
- 15. The Notice of Intent to adopt the ISMND and conduct a public hearing was provided in the following manner, in accordance with Ukiah City Code (UCC) §9267 and California Environmental Quality Act (CEQA) Guidelines Section 15073:
 - Provided to property owners within 300 feet of the project parcels, as well as agencies and departments with jurisdiction or interest over the project on April 16, 2021, June 1, 2021 and August 13, 2021;
 - Provided to members of the public, agencies, and interested parties who submitted written comments on the Draft ISMND during the public review period on August 13, 2021:
 - Published in the Ukiah Daily Journal on April 24, 2021, June 5, 2021 and August 14, 2021:
 - Posted on the Project site on May 3, 2021, June 1, 2021, and August 11;
 - Posted at the Civic Center (glass case) 72 hours prior to each public hearing;
 - Noticed for continuance at the May 26, 2021 Planning Commission hearing to a date certain of June 9, 2021; and
 - Notice for continuance at the June 9, 2021 Planning Commission to a date uncertain.

In addition, based on the amount of interest in the Project and to receive as much public input as possible, additional public noticing was conducted in the following manner:

- Posted on the City of Ukiah website on April 16, 2021 and August 16, 2021;
- Emailed to Planning Commissioners and City Councilmembers on April 16, 2021 and August 13, 2021;
- Hand-delivered to all residences (in addition to and beyond the 300-foot requirement) on Redwood Avenue on May 13, 2021 and mailed to all residences on Redwood Avenue on August 11, 2021.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

DRAFT ADDENDUM TO INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION FOR UKIAH WESTERN HILLS OPEN LAND ACQUISITION AND LIMITED DEVELOPMENT AGREEMENT PROJECT



Draft Prepared on October 31, 2023 Adopted by the Ukiah City Council on December 6, 2023

SCH No: 2021040428

Prepared by:

City of Ukiah
Community Development Department
Planning Division
300 Seminary Avenue, Ukiah, CA 95482

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ATTACHMENTS

- A. Western Hills Annexation Area Map and General Plan (2040) Land Use Map
- B. Existing Configuration of Parcels
- C. Proposed Configuration of Parcels and Prezoning Map
- D. Mitigation Monitoring Reporting Program
- E. 2021 MND Approval Documents and CEQA Notice of Determination

I. INTRODUCTION

1. Purpose of this Document

The purpose of this document is to formalize and analyze proposed changes to the previously approved (2021) Western Hills Annexation Area associated with the Ukiah Western Hills Open Land Acquisition and Limited Development Agreement Project ("2021 Western Hills Project") and the Initial Study and Mitigated Negative Declaration (2021 MND), in compliance with the California Environmental Quality Act (CEQA).

2. CEQA Requirements

Pursuant to Section 15164 of the CEQA Guidelines, an Addendum to an adopted MND may be prepared by a lead agency or a responsible agency if minor changes or additions are necessary and none of the conditions described in Section 15162 of the CEQA Guidelines calling for the preparation of a subsequent EIR or subsequent MND have occurred. Consistent with CEQA Guidelines 15164, the following discussion demonstrates that none of the conditions described in Section 15162 have occurred and that only minor technical changes are necessary in order to deem the certified MND adequate to describe the impacts of the project. CEQA Guidelines Section 15164 also states that an Addendum need not be circulated for public review but can be included in or attached to the certified MND for consideration by the hearing body.

The following addresses each of the criteria contained in Section 15162 of the CEQA Guidelines in regard to the project.

- a) No Substantial Project Changes. There are no substantial changes proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.
- b) No Substantial Change in Circumstances. No substantial changes have occurred with respect to the circumstances under which the project is undertaken which will require major revisions of the previous MND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.
- c) No New Information of Substantial Importance. There is no new information of substantial importance, which was not known or could not have been known with the exercise of reasonable diligence at the time the previous MND was certified as complete, which shows any of the following: the project will have one or more significant effects not discussed in the previous MND; significant effects previously examined will be substantially more severe than shown in the previous MND; mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or mitigation measures or alternatives which are considerably different from those analyzed in the MND would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

None of the conditions identified in CEQA Guidelines Section 15162(a) would occur with implementation of the Revised Project because:

- a) The revisions to the Revised Project would not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects evaluated in the 2021 MND. The Revised Project is proposing to include additional properties immediately adjacent to the original project within the Western Hills Annexation Area, resulting in the potential for six additional residential units, compared to the 14 potential units analyzed within the Western Hills 2021 MND. As discussed throughout this Initial Study, impacts from the Revised Project are equal to, or less than, those described for the original project. The Revised Project will incorporate mitigation identified in the 2021 MND to reduce all impacts to a less than significant level. No new impacts that were not previously discussed in the 2021 MND have been identified.
- b) No changes have occurred as a result of the Revised Project which require major revisions of the 2021 MND. The Revised Project would not result in any new significant environmental impacts or substantial increase in the severity of previously identified significant impacts (refer to the Environmental Analysis section for details regarding the impacts associated with the Revised Project).
- c) Although some circumstances surrounding the Revised Project have changed from those described in the 2021 MND, the analysis for the Revised Project demonstrates that the changes are not substantially different from those described in the 2021 MND. Additionally, there is no information available that indicates that the Revised Project would result in a substantial increase in the severity of previously identified impacts.

II. BACKGROUND

1. Location

The Western Hills Annexation Area parcels (now totaling ±792 acres), are located within unincorporated Mendocino County within the Ukiah Western Hills, just west of the Ukiah city limits. A Figure of the Annexation Area is included in Attachment A.

2. Background and Previous Approvals

The City has a vision, and is working towards a goal, of promoting the protection of Ukiah's western urban interface to restore and conserve forest and stream ecosystems, provide large-scale wildfire mitigation and to protect the Upper Russian River Watershed to benefit fish, wildlife, scenic resources, and the greater Ukiah community.

Over the last several years, the City has been acquiring lands immediately adjacent to the western City limits, known as the "Western Hills" with the purpose of annexing such lands into the City limits for preservation and public purposes. Specifically, the City is proposing to annex ±792 acres known as the "Western Hills Annexation Area", as amended, which comprises both City-owned and privately-owned property (See Project Description Section below for more information).

Below includes a summary of actions associated with the Western Hills Annexation Area to date.

At the August 25, 2021, regular meeting, the Planning Commission considered approval
of the Western Hills Open Land Acquisition and Limited Development Agreement Project
(2021 Western Hills Project), associated prezoning and Initial Study and Mitigated
Negative Declaration (ISMND; State Clearinghouse No. 2021040428), and recommended
approval for these actions to the City Council. The Western Hills Project included

- acquisition and annexation of ±707 acres for open space, public purposes, and the potential for limited residential development.
- On September 15, 2021, the City Council introduced Ordinance No. 1217, approving the Western Hills Project, associated prezoning and ISMND. Ordinance No. 1217 is included in **Attachment E** and the ISMND can be found online at: https://cityofukiah.com/ceqa-review/.
- On June 8, 2022, the City of Ukiah submitted an application for annexation to the Mendocino County Local Agency Formation Commission (LAFCo) for annexation of the Western Hills Project parcels, in accordance with the terms identified in the Development Agreement. In addition to the parcels identified as a part of the Western Hills Annexation Area, the application for annexation included several privately-owned parcels (±44 acres total) located in between the 2021 Western Hills Project parcels and the County's jurisdictional boundary, to inform the deliberate and appropriate boundaries and growth for the City of Ukiah. Some of these parcels also span both City and County jurisdiction and the City proposes to annex them to rectify this jurisdictional issue.
- On June 29, 2022, the City received correspondence from LAFCo determining that the
 application (LAFCo No. A-2022-02) had been reviewed and deemed incomplete based on
 several items, such as a Tax Share Agreement, Residential Entitlement matrix form,
 Property Owner letters of approval, a Statement of Fair Share Housing Needs and Timely
 Availability of Water, along with a few other ministerial items, the City noted as to be
 pending and forthcoming in the June 8, 2022 application for annexation.
- On December 7, 2022, the City Council adopted Resolution No. 2022-78 and Resolution No. 79, adopting the City's 2040 General Plan and certifying the associated Environmental Impact Report (EIR; SCH No. 2022050556). The 2040 General Plan and EIR identify the Western Hills Annexation Area as one of the three areas the City intends to pursue for annexation (see EIR Section 2.2.7). The 44 acres of privately owned parcels intended to rectify jurisdictional issues were included in the Western Hills Annexation Area within the General Plan and EIR. The General Plan and EIR can be found online at https://ukiah2040.com/.
- On December 19, 2022, LAFCo approved the City's Ukiah Municipal Service Review (MSR) and Sphere of Influence (SOI) Update. The updated SOI includes the entire Western Hills Annexation Area (2021) identified within the General Plan.
- An additional 40-acre parcel (APN 003-190-11) directly adjacent (south) to the Western Hills Project and City's western City limit became available for purchase in 2023, and on May 3, 2023, the City Council approved the City seeking acquisition of the parcel for open space and access opportunities in connection with the Western Hills open space parcels. This parcel is proposed for inclusion in the Western Hills Annexation Area, as described below.

III. PROJECT DESCRIPTION

1. Western Hills Project Description (2021)

The original (2021) Western Hills Project included the following.

- Acquisition, annexation and prezoning of ±707 acres, including:
 - ±640 acres preserved for open space conservation and public uses. These parcels were prezoned Public Facilities ("PF").
 - ±54 acres included in a Limited Development Agreement between the City and the private property owner (Hull; D&J Investments, LLC.) to allow for residential development (14 units total) through the creation of seven "Development Parcels" (via a series of sequential Lot Line Adjustments) beginning at the terminus of Redwood Avenue. These parcels are prezoned Single-Family Residential-Hillside Overlay (R1-H).
 - ±14 acres of privately owned property included in the Limited Development Agreement for access to the open space parcels. These parcels were prezoned R1-H.
- Road improvements to Redwood Avenue, as well as water/sewer utility extensions within Redwood Avenue, and construction of a water tank.

2. Revised Project Description (2023)

Since approval of the 2021 Western Hills Project, 84 acres have been added to the Western Hills Annexation Area, as described below. The additional acreage, in combination with the other components outlined below, constitute the "Revised Project".

- ±44 acres of privately-owned property (comprising 9 legal parcels) were added to the Western Hills Annexation Area to address existing LAFCo policies and known mapping errors, and to avoid the formation of an unincorporated island. These parcels were not included in the original 2021 Western Hills Project but were included in the preliminary application submitted to LAFCo. Additionally, they were identified as a part of the Western Hills Annexation Area in the 2040 General Plan and included in the Environmental Impact Report analysis (see Environmental Review Section below for more information). These parcels are proposed for R1-H prezoning for consistency with existing and adjacent development but would remain under private ownership and are not included in the Development Agreement (2021) or Purchase Agreement (2023).
- ±40 acres of privately-owned property being pursued for acquisition by the City for open space and access opportunities. The parcel is proposed for inclusion in the Western Hills Annexation Area. A Purchase Agreement for the 40 acres would allow the private property owner (Hull) to retain the right to keep 15 acres for development of three (3) parcels, as further described below. The aforementioned 15 acres is proposed for R1-H prezoning, and the remaining 25 acres (that would be owned by the City) would be prezoned PF for open space. The 40-acre parcel is currently not located within the City's SOI but is within the Planning Area identified in the General Plan. The parcel would be owned by the City at the time of annexation. The 15 acres would be transferred to Hull after annexation is complete.
- The Purchase Agreement to include APN 003-190-11. The Purchase Agreement would allow Hull to retain one +/- 15-acre parcel (via a Lot Line Adjustment) after annexation. Hull would be able to retain the right to create and develop three parcels with one single family home and one accessory dwelling unit (six total possible units), in accordance with R1-H zoning regulations. Similar to the Western Hills Project (2021), the Revised Project, including the new

Purchase Agreement, allows for limited development, but does not include specific development designs or proposals, nor does it grant any entitlements for development. The parcels would be created within the eastern portion of the existing 40-acre parcel, but the location of the potential residential units is not known at this time. The Purchase Agreement will also specify the following:

- City will release public access on private drive from Redwood Ave (current DA says the City maintains access until alternate access established).
- Hull retains water rights from Ellison well with access and utility easement for use in enhancing fire protection activities on the three development parcels and potentially for potable water to the development sites.
- Hull grants City additional trail easements to San Jacinta (south side) as the City originally retained the right to only one trail easement and would like to retain the option for additional trail location depending on future design work.
- Project does not include road or utility improvements, access to the parcels is established off of a private drive at the end of Redwood Avenue. There is no associated water, sewer or electric utility component to this project. After the three development parcels are established any utility infrastructure work would be evaluated in concert with the appropriate site development permits and serving entities.

Figures of the Western Hills Annexation Area is included in Attachment A, a figure showing the existing and proposed conditions for the 15 acres associated with the Purchase Agreement is included in Attachment B, and a Prezoning Figure is included in Attachment C.

Table 1, Western Hills Annexation Area Parcels (as revised)

Assessor Parcel Number	Property Owner	Situs Address	Size (acres)
2021 Western Hills P	roject Parcels		
157-030-02	City of Ukiah	None assigned	20.00
157-030-03 City of Ukiah		None assigned	60.00
L57-050-14 City of Ukiah		None assigned	20.17
157-050-15 City of Ukiah		None assigned	40.43
157-050-16	Dave Hull; D & J Investments, LLC.	None assigned	40.25
157-050-18	City of Ukiah	None assigned	60.00
157-070-05	City of Ukiah	None assigned	76.20
003-190-17	Dave Hull; D & J Investments, LLC.	None assigned	18.30
Dave Hull; D & J Investments, LLC.		None assigned	0.29
003-190-15	Dave Hull; D & J Investments, LLC.	None assigned	5.00
003-190-13	Dave Hull; D & J Investments, LLC.		9.08
003-110-90	Adonis & Sarah Noguera	620 Redwood Ave.	4.14
003-190-09	Adonis & Sarah Noguera	620 Redwood Ave.	10.20
100-040-83	Dave Hull; D & J Investments, LLC.		77.60
157-050-03	City of Ukiah	None assigned	60.05
157-050-13 City of Ukiah		None assigned	59.71
157-060-02	City of Ukiah	None assigned	18.66
157-060-03 City of Ukiah		None assigned	128.52
Privately-Owned Par	cels Added to the Western Hills Anne	exation Area in the 2040 Ge	neral Plan
001-420-40	Robert R Beltrami	145 Mendocino Place	1.49
001-041-02	Grayden Huff	500 Lookout Dr.	1.33
001-041-03	Amanda Reiman	4 Lookout Dr.	0.66
001-041-04	01-041-04 Amanda Reiman		0.48
001-041-05	01-041-05 Robert Werra		1.13
001-041-06	-041-06 Robert Werra		0.74
001-041-07	01-041-07 Robert Werra		0.38
001-040-81 William Edwards		335 Janix Dr.	2.40
001-041-01	Robert Werra	None assigned	35.50
Additional Parcels Pr	oposed for Inclusion		
003-190-11	Dave Hull (25 acres to be acquired by City)	None assigned	40
		TOTAL ACREAGE	792.71

IV. EVALUATION OF ENVIRONMENTAL IMPACTS

1. Environmental Setting

The Western Hills Annexation Area is located within the Ukiah Valley, west of the City of Ukiah, in central Mendocino County, with elevations varying from approximately 600-feet above mean sea level up to approximately 3,000 feet in the hills surrounding the city, including the Western Hills. The Ukiah valley is located approximately 30 miles east and inland from the Pacific Ocean. It runs north-south for approximately nine miles, with a maximum width of three miles. The Russian River enters the valley at the north end and runs south along the valley floor. Ukiah is located along the Highway 101 corridor and near the east/west intersection of Highway 20, two hours north of the Golden Gate Bridge.

The majority of the area is undeveloped with access roads and fire breaks. However, the 44 acres of private property north of the original 2021 Western Hills Project are developed with single-family homes and/or undeveloped. The additional 40 acres proposed for inclusion in the Western Hills Annexation Area (Revised Project) is largely undeveloped and is bisected by a 1,000-foot unpaved road accessed from Redwood Avenue. The access road width ranges from 16-to-20-feet wide and has been improved with gravel and compaction. The road climbs to a levelled one-acre abandoned cannabis cultivation site before continuing uphill and off the project site. Remnants of the cultivation site include old fencing with concrete footings, PVC irrigation pipes, pots, tubs, planting containers, a water tank, and pallets.

Soils in the area are characterized as both Hopland, which consists of very deep, well drained soils formed in colluvium and residuum weathered from sandstone or shale on steep hills and slopes, and Maymen soils that are shallow, somewhat excessively drained soils that formed in residuum weathered from shale, schist, greenstone, sandstone and conglomerate. These soils have a shallow depth to bedrock. Class II and Class III watercourses exist along the steeper portions of the area.

Vegetation in the Western Hills Annexation Area includes native and nonnative annual and perennial grasses, with dense chaparral and mixed hardwood forest throughout. Native trees in the area primarily consist of California bay laurel (Umbellularia californica) and California black oak (Quercus kelloggii). Undergrowth consists largely of poison oak (Toxicodendron diversilobum) and Western bracken fern (Pteridium aquilinium). The terrain is very rugged and steep (greater than 50% slope in many areas). Intrusions of non-native, invasive French Broom and other species are also present throughout the area.

2. Previously Disclosed Impacts

2021 MND: The analysis within the Mitigated Negative Declaration previously approved for the Western Hills Project (referred to herein as the "2021 Western Hills Project" and "2021 MND") included the following: 1) Acquisition and annexation of the parcels; 2) Prezoning the parcels to PF and R1-H (and associated Zoning Map and General Plan Map Amendments upon approval of the annexation application); 3) Sequential Lot Line Adjustments to reconfigure the existing parcels into seven lots ("Development Parcels") for future potential development; 4) Development

Agreement between Hull Properties and the City allowing up to one single-family home and one accessory dwelling unit on each Development Parcel (14 units total); and 5) site improvements including extension of utilities, road improvements, and construction of the water tanks.

As described throughout the Initial Study, construction and ground disturbing activities associated with these components could result in direct significant impacts to Air Quality, Biological Resources, Cultural/Tribal Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Utilities and Service Systems, and Wildfire. However, mitigation measures identified within the aforementioned sections would reduce impacts to less than significant. Mitigation measures identified within the Initial Study and Mitigated Negative Declaration related to ground disturbing activities and construction for road and utility improvements, as well as residential development, will be included in the Development Agreement and Conditions of Approval to ensure that they are implemented accordingly. A Mitigation Monitoring and Reporting Program is provided in Section VII of the Initial Study.

All future residential development would be analyzed on a project level basis for consistency with land use policies; and would be subject to discretionary and environmental review of their individual and cumulative environmental impacts, as applicable (with the exception of by-right development).

Based upon the analysis contained within the 2021 MND, all potential impacts resulting from the 2021 Western Hills Project would be less than significant with incorporation of mitigation.

2040 General Plan EIR: The City's 2040 General Plan and Environmental Impact Report (EIR) were adopted by City Council in December, 2022, and analyzed the type and amount of development that can occur throughout the City through the planning horizon year of 2040 (over approximately 18 years). As part of the 2040 General Plan, the City identified three potential separate annexation areas currently located in the County of Mendocino's jurisdictional boundaries, totaling approximately 1,617 acres. The Western Hills Annexation Area was identified as "Annexation Area C" and included the original 707 acres associated with the 2021 Western Hills Project, as well as the 44 acres of "clean up" parcels added after approval of the 2021 Western Hills Project. The EIR analyzed annexation of this area, as well as the associated prezoning, and adoption of the new Sphere of Influence and Planning Area. Because the addition of the 44 acres was analyzed within the EIR and no change to those parcels are proposed as a part of the Revised Project, further analysis of these parcels is not required, and not included within this Addendum. However, the EIR is referenced in certain sections of the below analysis, as appropriate.

3. Summary of Impacts

A. Aesthetics

Summary of Aesthetics Impacts from the Western Hills Project 2021 MND

According to the California Department of Transportation's (Caltrans) State Scenic Highway System Map, there are no designated state scenic highways within the vicinity of the project. However, the Western Hills, including the Project site are considered a local scenic vista. Approximately 640 acres would remain open space, while 54 acres would be potentially developed with up to 14 units (one single-family dwelling and one ADU per lot). Although the Project does not include specific development proposals for construction of the homes, the Development Agreement allows the potential for the homes to be built at some point in the future. However, all future development would be subject to discretionary and environmental review and be required to comply with City regulations for height, setbacks, and other development standards established to protect natural features and scenic resources within the Western Hills.

Sewer and electric utilities would be extended from Redwood Avenue to the house sites but would be located underground within the existing roadway to avoid visual impacts. The two proposed water tanks (34 ft x 34 ft, 10.5 ft high) would be colored a shade of green to blend in with the landscape. The water tank site has already been cleared of vegetation and is surrounded by trees, making it less visible to the public. Due to the location and topography of the site, and distance from public views, such as those in adjacent residential areas or views from the valley floor, the proposed water tank would not significantly impact scenic resources on the site or in the area.

For the aforementioned reasons, the Project would not result in a significant impact to scenic vistas, nor the visual character of the site or area. Impacts would be less than significant.

2021 MND Mitigation Measures: None.

Summary of Aesthetics Impacts from the Revised Project

Impacts to Aesthetics associated with the revised Project would be consistent, if not less than, those disclosed within the 2021 MND. Specifically, the 40-acres proposed for inclusion in the Western Hills Annexation Area contains similar terrain, vegetation and scenic quality as the parcels previously analyzed. While the Revised Project does not include road and/or utility improvements, which would result in less impacts described within the 2021 MND associated with groundwork, grading, and vegetation removal associated with those components, the Purchase Agreement would allow for potential development of up to six additional units within a 15-acre area, in accordance with the R1H zoning regulations. Similar to the analysis contained within the 2021 MND, the exact location of the potential development parcels and residential units is unknown at this time. However, all future development would be subject to discretionary and environmental review and be required to comply with City regulations for height, setbacks, and other development standards established to protect natural features and scenic resources within the Western Hills. For the aforementioned reasons, consistent with the 2021 MND, the Revised Project would not result in a significant impact to scenic vistas, nor the visual character of the site or area. Impacts would be less than significant.

B. Agriculture and Forestry Resources

Summary of Agriculture and Forestry Impacts from the Western Hills Project 2021 MND

According to the California Department of Conservation Farmland Mapping & Monitoring Program, California Important Farmland Finder, the Project area does not contain Unique Farmland, or Farmland of Statewide Importance. However, the site is designated as Grazing Land, which is defined as land on which the existing vegetation is suited to the grazing of livestock but has not been used for grazing. There are no agricultural uses or Williamson Act contracts on-site or in the immediate vicinity. The Project would not convert Farmland, conflict with existing zoning for agriculture or forest land, and would not involve changes to the environment that would result in the conversion of agricultural resources to non-agriculture uses. Therefore, impacts to agricultural resources would be less than significant.

2021 MND Mitigation Measures: None.

Summary of Agriculture and Forestry Impacts from the Revised Project

Consistent with the analysis contained within the 2021 MND, the 40-acre parcel proposed for inclusion in the Western Hills Annexation Area is designated as Grazing Land by the California Department of Conservation Farmland Mapping & Monitoring Program, and there are no agricultural uses or Williamson Act contracts on-site or in the immediate vicinity. Consistent with the analysis in the 2021 MND, Revised Project would not convert Farmland, conflict with existing

zoning for agriculture or forest land, and would not involve changes to the environment that would result in the conversion of agricultural resources to non-agriculture uses. Therefore, impacts to agricultural resources would be less than significant.

C. Air Quality

Summary of Air Quality Impacts from the Western Hills Project 2021 MND

Improvement of roadways, installation of utilities, and construction of the water tanks, as well as future potential construction of single-family homes could result in impacts to air quality. Short-term construction related impacts (emissions and dust) would result from grading, vegetation removal, trenching, paving, operation of construction equipment, and vehicle trips associated with construction workers. However, with incorporation of Mendocino County Air Quality Management District (MCAQMD) Best Management Practices identified in Mitigation Measures AQ-1 through AQ-3, impacts would be less than significant.

Long-term air quality impacts associated with single-family residential development is typically minimal and generally associated with vehicle trips, wood burning stoves, landscape and maintenance activities, etc. However, existing building codes requiring energy efficient and low emitting equipment and features for new residential development (see Section 6, Energy, Section 8, Greenhouse Gas Emission, and Section 17, Transportation of the Initial Study for more information). With adherence to the aforementioned regulations, and others intended to reduce emissions and impacts to air quality, impacts from operation of the Project would be less than significant.

2021 MND Mitigation Measures:

AQ-1: Diesel Engines – Stationary and Portable Equipment and Mobile Vehicles:

- a. Any stationary onsite diesel IC engines 50 horsepower or greater (i.e. large power generators or pumps) or any propane or natural gas engines 250 horsepower or greater may require a permit from the District.
- b. Portable diesel powered equipment that may be used during the proposed project are required to be registered with the state Portable Equipment Registration Program (PERP) or obtain permits from the District.
- c. Projects located adjacent to sensitive receptors (schools, child care facilities, health care facilities, senior facilities, businesses, and residences, etc.) during the construction phase of this project have the potential for exposure to diesel particulate.
- d. Heavy duty truck idling and off-road diesel equipment or other diesel engine idling is limited to less than 5 minutes.

AQ-2: Grading Projects- During Construction-All grading activities must comply with the following fugitive dust mitigation measures in accordance with District Regulation 1, Rule 1-430:

- a. All visibly dry disturbed soil road surfaces shall be watered to minimize fugitive dust emissions.
- b. All unpaved surfaces, unless otherwise treated with suitable chemicals or oils, shall have a posted speed limit of 10 mph.
- c. Earth or other material that has been transported by trucking or earth moving equipment, erosion by water, or other means onto paved streets shall be promptly removed.
- d. Asphalt, oil, water, or suitable chemicals shall be applied on materials stockpiles, and other surfaces that can give rise airborne dusts.
- e. All earthmoving activities shall cease when sustained winds exceed 15 mph.

- f. The operator shall take reasonable precautions to prevent the entry of unauthorized vehicles onto the site during non-work hours.
- g. The operator shall keep a daily log of activities to control fugitive dust.
- h. For projects greater than one acre or one mile of road not located within a Naturally Occurring Asbestos Area, prior to starting any construction the applicant is required to:
 - 1. Submit a Large Area Grading permit application to the District.
 - Obtain a final determination from the Air Quality Management District as to the need for an Asbestos Dust Mitigation Plan and/or Geologic Survey to comply with CCR sections 93106 and 93105 relating to Naturally Occurring Asbestos.
 - 3. Obtain written verification from the District stating that the project is in compliance with State and Local regulations relating to Naturally Occurring Asbestos.
 - 4. If the project is located within a Naturally Occurring Asbestos Area, additional mitigations shall be required.

AQ-3: Property Development-Prior to starting any construction, the applicant is required to:

- a. Obtain a Property Development Permit from the District for any open outdoor burning.
- b. Obtain a Grading Permit, if applicable.
- c. Confirm whether the project is in a Naturally Occurring Asbestos Area, and follow additional MCAQMD recommendations, if applicable.
- d. Consider alternate means of disposal other than open burning, such as cutting the majority of the larger material up as firewood, and chipping smaller material, if feasible to mitigate impacts from open outdoor burning.
- e. Obtain written verification from the MCAQMD stating that the project is in compliance with State and Local regulations.

Summary of Air Quality Impacts from the Revised Project

Impacts associated with the Revised Project, and specifically potential future residential development of six units, would be the same as described within the 2021 MND and future development would adhere to Mendocino County Air Quality Management District (MCAQMD) Best Management Practices identified in Mitigation Measures AQ-1 through AQ-3, and relevant energy efficiency building codes, impacts would be less than significant.

D. <u>Biological Resources</u>

Summary of Biological Resources Impacts from the Western Hills Project 2021 MND

According to the Biological Assessment Report (BRA) was prepared for the Project by Jacobszoon & Associates, Inc. (2021, updated 2022) for the Project, based on existing vegetation and known habitat range, seventeen (17) special-status plant species and thirteen (13) special-status wildlife species have a moderate or high potential to occur within the study area (identified as 55 acres for potential development, and 100 ft radius around the access road and fire breaks). However, during the field survey, none were observed on-site. Because no special status plant species were observed during the field survey, the Project is not anticipated to result in significant impacts to them. However, this does not preclude the possibility of wildlife species being present at the time of construction or being impacted from vegetation removal, grading, and other ground disturbing activities for utility extension, road improvements, water tank construction, and future residential development. In addition, two sensitive woodland tree habitats were identified in the Project Area. As such, construction, vegetation removal, and ground disturbing activities could

result in impacts to nesting birds, special status insects, woodland habitat, and mammals. However, Mitigation Measures BIO-1 through BIO-5 would reduce impacts to less than significant.

There are no established native resident or migratory wildlife corridors, or native wildlife nursery sites within the Project area, and no adopted Habitat Conservation Plans for the City of Ukiah, nor the larger Ukiah Valley that apply to the site.

The Study Area contains two (2) Class II watercourses and four (4) Class III watercourses that were observed and mapped on-site (in the northernmost parcels). However, this area would be avoided, and no development is proposed within proximity of the watercourses. No wetlands were observed within or immediately adjacent to the study area. The study area also does not contain any special-status fish species or fish bearing watercourses or waterbodies. If future work in or adjacent to any of the other watercourses are proposed, the Developer is required to obtain necessary regulatory permits from the California Department of Fish and Wildlife and the Regional Water Quality Control Board, as necessary. Impacts to sensitive aquatic resources would be less than significant.

2021 MND Mitigation Measures:

BIO-1: Sensitive Trees. If trees are proposed for removal, preconstruction surveys shall be conducted by a qualified biologist to identify Oregon white oak forest and woodland, as well as California bay forest and woodland habitat; removal of sensitive habitat shall be conducted in accordance with California Department of Fish and Wildlife (CDFW) regulations.

BIO-2: Sensitive Amphibian Species. A qualified biologist shall survey the area prior to any groundbreaking activities to determine the presence of Red-belly newt, or other sensitive amphibian species, and identify additional avoidance measures, if needed. A qualified biologist shall be on-site for any dewatering event to address the potential for the presence of sensitive amphibian species such as foothill yellow-legged frog (Rana boylii).

BIO-3: Nesting Birds. Pre-construction surveys shall be conducted prior to any vegetation removal or ground disturbing activities occurring between March 1 and August 31 of any year. All active bird nests shall not be removed, relocated, or otherwise disturbed for any purpose until all fledglings have left the nest.

BIO-4: Special-Status Insects. A qualified biologist shall survey the area prior to any groundbreaking activities to determine the presence of special-status insect species and identify additional avoidance measures if needed. If a special-status insect nests are observed, active nests shall not be removed, relocated, or otherwise disturbed until the nest becomes inactive.

BIO-5: Special-Status Mammals. Pre-construction surveys shall be conducted prior to any vegetation removal or ground disturbing activities. If evidence of bat roosts is observed (i.e. bat guano, ammonia odor, grease stained cavities) around trees or structures, pre-construction bat surveys shall be conducted by a qualified biologist for activities that may affect bat roosting habitat and den sites.

Summary of Biological Resources Impacts from the Revised Project

The additional 40 acres proposed for inclusion in the Western Hills Annexation Area (Revised Project) is largely undeveloped and is bisected by a 1,000-foot unpaved road accessed from Redwood Avenue. The access road width ranges from 16-to-20-feet wide and has been improved with gravel and compaction. The road climbs to a levelled one-acre abandoned cannabis cultivation site before continuing uphill and off the project site. Remnants of the cultivation site

include old fencing with concrete footings, PVC irrigation pipes, pots, tubs, planting containers, a water tank, and pallets.

Vegetation on the Project site is varied across east, south, and north facing slopes. South facing slopes include native and nonnative annual and perennial grasses, brush (chamise) and Oak woodland. East facing slopes include mixed hardwood forest and Black Oak Woodland. Undergrowth is consistent with a Black Oak Alliance including Toyon (Heteromeles arbutifolia), ceanothus (Ceanothus spp.), and Manzanita (Manzanita spp.). North facing slopes are dominated by Doug Fir (Pseudotsuga menziesii). The northern boundary of the property includes a Class III waterway and associated riparian vegetation. Intrusions of non-native, invasive French Broom are found along approximately 100 yards of the road as it climbs away from the drainage. The terrain on the southern side of the property is steep (greater than 50% slope in some areas) while the northern portion of the property has slopes generally in the 10-30% range. There are no soils unusual to the region.

The Revised Project includes preservation of an additional 25 acres of open space, which would have no impact on biological resources. However, the 15 acres that would be included in the Purchase Agreement and allow for up to six residential units, would have similar impacts to those described in the 2021 MND. The parcels would be created within the eastern portion of the existing 40-acre parcel, but the location of the potential residential units is not known at this time. All development requires discretionary review per the R1-H zoning district regulations. R1-H regulations also requires submittal of the following: soil and geological reports, subsurface investigations, grading plans, vegetation reports, and hydrology reports. Additionally, depending on the location and vegetation contained within the development area, a Biological Assessment may also be required. Future development would also adhere to Mitigation Measures BIO-1 through BIO-5. A Class III watercourse is located in the northern portion of the site. However, no development would occur in this area and watercourses would be avoided. As such, impacts to biological resources as a result of the Revised Project would be similar to those described in the 2021 MMD, and would be less than significant with mitigation.

E. Cultural Resources

Summary of Cultural Resources Impacts from the Western Hills Project 2021 MND

An Archeological Survey Report was prepared by Alta Archeological Consulting (Alta) in March 2021, to identify any archaeological, historical, or cultural resources located within the 55 acres included in the Development Agreement to be developed with single family homes at some point in the future. Alta also conducted a field survey of the area and requested an archaeological and historical records search (File No. 20-1364) from the Northwest Information Center (NWIC) located on the campus of Sonoma State University. The records search included a review of all study reports on file within a one-half mile radius of the Project area. No cultural resources were identified within the Project area (or within one-half mile) as a result of the records search, literature review, or archaeological field survey. In addition, given the steep terrain, the potential for substantial prehistoric or historic settlement is considered low. Therefore, the Project activities are not anticipated to cause a substantial adverse change in the significance of a historical resource as defined in §15064.5.

As a part of the Project, the City also followed tribal consultation notification procedures, in accordance with Assembly Bill 52 (AB 52). On January 28, 2021, a request for formal consultation by the Pinoleville Pomo Nation was received, and AB 52 consultation was concluded with the tribe on May 3, 2021. No specific resources were identified within the Project area as a result of the consultation process, but Mitigation Measures CUL-1 and CUL-2 were included in the Project

to mitigate for the potential of unanticipated discoveries during ground disturbing activities. These mitigation measures apply to all future development. As such, impacts to cultural, archeological and historical resources would be less than significant with mitigation incorporated.

2021 MND Mitigation Measures:

CUL-1: Unanticipated Discovery. If previously unidentified cultural, historic, palaeontologic or archeologic resources are encountered during project implementation, altering the materials and their stratigraphic context shall be avoided and work shall halt immediately. A qualified professional archaeologist shall be contacted to evaluate the resource and methods necessary to protect it. Project personnel shall not collect, move, or disturb cultural resources. Prehistoric resources include, but are not limited to, chert or obsidian flakes, projectile points, mortars, pestles, and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic resources include stone or abode foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.

CUL-2: Encountering Native American Remains. If human remains are encountered during ground disturbing activities, all work shall stop in the immediate vicinity of the discovered remains and the County Coroner and a qualified archaeologist shall be notified immediately so that an evaluation can be performed. If the remains are deemed to be Native American and prehistoric, the Native American Heritage Commission must be contacted by the Coroner so that a "Most Likely Descendant" can be designated and further recommendations regarding treatment of the remains will be provided.

Summary of Cultural Resources Impacts from the Revised Project

Impacts from the Revised Project, and specifically the potential development of six single family homes within the additional 15 acres, would be consistent with those described in the 2021 MND, as the soils, terrain and development type would be similar. With implementation of Mitigation Measures CUL-1 and CUL-2, impacts would be less than significant with mitigation incorporated.

F. Energy

Summary of Energy Impacts from the Western Hills Project 2021 MND

The Western Hills Project, including the Development Agreement, does not include specific development designs or proposals, nor does it grant any entitlements for development. Future housing projects will be analyzed on a project level basis subject to the County's and City's building and safety codes, as well as Title 24 regulations (and others) to promote energy efficiency. Specifically, each residence would be required to comply with Title 24 Building Energy Efficiency Standards, which provide minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting.

Project construction equipment would also be required to comply with the latest California Air Resources Board (CARB) and Environmental Protection Agency (EPA) engine emissions standards which require highly efficient combustion systems that maximize fuel efficiency and reduce unnecessary fuel consumption.

With adherence to the aforementioned regulations, and others intended to reduce energy consumption, impacts from the Project related to energy consumption would be less than significant.

2021 MND Mitigation Measures: None.

Summary of Energy Impacts from the Revised Project

Impacts from the Revised Project would be consistent with those described in the 2021 MND, as all future potential construction would be subject to the aforementioned regulations intended to reduce energy consumption. Impacts to energy as a result of the Revised Project would be less than significant.

G. Geology and Soils

Summary of Geology and Soils Impacts from the Western Hills Project 2021 MND

The Western Hills Project site(s) is not in a California Earthquake Fault Zone and is not susceptible to liquefaction or strong seismic ground shaking. However, future potential construction of single-family homes and utility improvements could require vegetation removal and grading, which could result in impacts associated with erosion, the loss of topsoil and landslides if not properly designed.

All of the aforementioned activities must be completed in accordance with applicable safety codes and the below standard mitigation measure requires sediment and erosion plans identifying BMPs to reduce soil erosion and water runoff to reduce or avoid impacts to geology and soils to be submitted prior to any ground disturbance, in accordance with Ukiah City Code ("UCC") Division 9, Chapter 7, Erosion and Sediment Control. In addition, R1-H development standards (which will be applied to all Development Parcels) require submittal of Geotechnical Reports, Grading Plans, Hydrology Reports, etc. to ensure development is being properly designed, and will include a set of site/project specific recommended Best Management Practices and adherence to Mitigation Measure GEO-1 for future development projects to avoid impacts to geology and soils. Impacts related to soil erosion and geologic hazards would be less than significant with mitigation.

An onsite community sewer system (holding tank) with a sewer line, rather than a leach field, will be constructed for discharging wastewater (effluent only) to a sewer main at the end of Redwood Avenue. The soils at the Project site are not identified as being expansive and could adequately support the sewer system. In addition, building code, Mendocino County of Environmental Health, and Public Works' requirements will ensure that the sewer system is adequately installed in accordance with all standards related to safety. Impacts would be less than significant.

Lastly, as described in Section 5, Cultural Resources, of the 2021 MND, although not anticipated, the potential exists for unique paleontological resources or site or unique geological features to be encountered within the Project area during ground-disturbing construction activities. However, in the event that resources are discovered during construction, Mitigation Measure CUL-1 requires the protection of the resources. Impacts would be less than significant with mitigation incorporated.

2021 MND Mitigation Measures: Implementation of CUL-1.

GEO-1: The Project shall comply with the erosion and design standards outlined in Chapter 7 of the Ukiah City Code. Prior to any ground disturbance, erosion and sediment control plans shall be submitted to the Public Works and Community Development Departments for review and approval. Said plans shall protect against soil erosion and runoff through the implementation of appropriate Best Management Practices (BMPs). Typical BMPs include the placement of straw, mulch, seeding, straw wattles, silt fencing, etc. No silt, sediment or other materials shall be allowed to flow from the project area.

Summary of Geology and Soils Impacts from the Revised Project

The terrain on the southern side of the property is steep (greater than 50% slope in some areas) while the northern portion of the property has slopes generally in the 10-30% range. There are no soils unusual to the region. Impacts from the Revised Project would be consistent with those described in the 2021 MND, as the soils, terrain and development type would be similar, and all future potential construction would be subject to the aforementioned regulations intended to reduce soil erosion and hazards to related to geologic features. Development on the 15 acres under the Revised Project would differ in that there would not likely be the affluent line and all sewer/septic would stay on site. Impacts to soils related to septic systems would be evaluated with any site development permit application. Specifically, potential development under the Revised Project would adhere to R1-H regulations, which require submittal of Geotechnical Reports, Grading Plans, Hydrology Reports, etc. to ensure development is being properly designed, and will include a set of site/project specific recommended Best Management Practices and adherence to Mitigation Measure GEO-1 and CUL-1 for future development projects to avoid impacts to geology and soils. Impacts to geology and soils as a result of the Revised Project would be less than significant with mitigation.

H. <u>Greenhouse Gas Emissions</u>

Summary of Greenhouse Gas Emissions Impacts from the Western Hills Project 2021 MND

As discussed in Section 3, Air Quality, of the 2021 MND, the Western Hills Project (both construction and operation) would not result in a significant negative impact to air quality. Similarly, as discussed in Section 17, Transportation, the Western Hills Project would not produce significant amounts of traffic or vehicle miles traveled that would in turn result in a significant increase in GHG emissions. Individual residential development projects constructed under the Development Agreement will be reviewed on a project by project basis to analyze GHG emissions and will be required to follow all building codes and policies including those intended to reduce emissions. Specifically, future residential uses constructed on all Development Parcels would be required to adhere to all federal, state, and local requirements for energy efficiency, including the Title 24 standards. Compliance with Title 24 Building Energy Efficiency Standards would provide minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting. Implementation of the Title 24 standards significantly reduces energy usage, as well as GHG emissions.

Lastly, the Project includes annexation and conservation of approximately 640 acres, which will have no impact (or a beneficial impact) on GHG, given that the Project is located within a non-attainment area, the rural nature of the site, and small development footprint, the Project, including infrastructure improvements and other temporary construction activities, is not expected to significantly increase GHG in the area. With implementation of the aforementioned regulations, impacts to GHG emissions would be less than significant.

2021 MND Mitigation Measures: None.

Summary of Greenhouse Gas Emissions Impacts from the Revised Project

Impacts associated with greenhouse gas emissions would be consistent with those described in the 2021 MND, as the potential development type and intensity is similar (but slightly less) than that described for the Western Hills Project. Compliance with Title 24 Building Energy Efficiency Standards would provide minimum efficiency standards related to various building features,

including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting. Implementation of the Title 24 standards significantly reduces energy usage, as well as GHG emissions. Additionally, as a part of the 2040 General Plan, the City adopted thresholds for analyzing projects under Vehicle Mailes Traveled, which is directly tied to greenhouse gas emissions. The General Plan EIR identified that the following projects are expected to result in less than significant impacts: small projects that meet existing categorical CEQA exemptions, employment uses in areas with a diverse mix of land uses, local serving retail, projects in proximity to a major transit stop, transportation projects, and all residential projects/uses (such as those proposed as a component of the Revise Project). For more information, please refer to Section 4.11, Transportation, and Appendix D of the City's General Environmental Impact Report, which be mav accessed online https://ukiah2040.com/images/docs/Ukiah 2040 Compiled Appendices.pdf.

Based on the aforementioned, impacts related to greenhouse gas emissions from the Revised Project would be less than significant.

I. Hazards and Hazardous Materials

Summary of Hazards and Hazardous Materials Impacts from the Western Hills Project 2021 MND

Hazardous Materials. Construction activities and future residential uses associated with the Project would require the routine transport, use, storage, and disposal of small quantities of hazardous materials common for equipment and property maintenance and operation, such as gasoline, diesel fuel, hydraulic fluids, oils, lubricants, cleaning solvents and supplies, pesticides, fertilizers, paint, etc. However, the types and quantities of materials to be used are not expected to pose a significant risk to the public and/or environment and would be managed in accordance with federal, state, and local regulations. In addition, Mitigation Measure HAZ-1 would ensure that materials would be transported and stored in a manner to reduce potential impacts, including those to schools within one-mile, to less than significant. Impacts would be less than significant with mitigation incorporated.

According to the GeoTracker and EnviroStor databases the Project site(s) do not contain any listed hazardous sites; no impact would occur.

Airport. Under the Ukiah Municipal Airport Land Use Compatibility Plan (UKIALUCP), the Project is located within the Other Airport Environs (OAE) Compatibility Zone. Within this airport influenced area, no limits are prescribed with regard to intensity of use, density of dwelling units, nor are there any open land requirements specific to airport safety considerations. According to Table 3A of the UKIALUCP, the proposed Project would not engender airport safety concerns under the UKIALUCP, and a review of associated residential uses are indicated as 'Normally Compatible.' As such, impacts to people residing or working near the airport would be less than significant.

Emergency Response. There are no components of the Project that would impair or interfere with emergency response or evacuation. Since the Project, specifically access improvements and residential development, would be required to be designed in accordance with state and local standards, including safety and emergency access requirements, there are no components of the Project that would impair implementation of, or physically interfere with, the adopted Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) or other emergency response plan or evacuation plan. Impacts would be less than significant.

Wildfire. As previously noted, none of the lands within the City of Ukiah are located within a California Department of Forestry (Cal Fire) State Responsibility Area (SRA). However, County lands immediately west of the City (including the majority of the Project site(s)) are located within the SRA and are classified as having a "Very High" fire hazard severity. The Project site is developed with Cal Fire fuel breaks and has been subject to vegetation management practices in order to reduce fire risk in the Western Hills. Additionally, the Project includes installation of an approximately 130,000-gallon water tank to add new water storage and fire protection facilities in the Western Hills. The access road and future residential development are required to adhere to all fire safety standards. Regardless of the aforementioned, construction activities involving the use of gasoline-powered tools and equipment could introduce new temporary sources of ignition that could increase fire risk. However, with implementation of Mitigation Measure HAZ-2, impacts would be reduced to less than significant. For the reasons stated, the Project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires. See Section 20, Wildfire of the 2021 MND, for more information. Impacts would be less than significant with mitigation incorporated.

2021 MND Mitigation Measures:

HAZ-1: The developer shall establish and implement construction site management practices that will prevent toxic materials and other debris from entering the City's storm drainage and waterway systems, including:

- a. There shall be no storage of hazardous materials at the Project Site;
- b. The developer shall provide adequate materials management, including covering, securing, and segregating potentially toxic materials (grease, oils, fuel, solvents, etc.); and
- c. The developer shall maintain supplies on-hand to contain spills of oil and any other hazardous materials used on-site.

HAZ-2: Should portable gasoline-powered equipment be used on site, the following firesafe precautions shall be taken:

- a. Spark arresters are required on all portable gasoline-powered equipment.
- b. Equipment shall be maintained in good working condition, with exhaust systems and spark arresters in proper working order and free of carbon buildup.
- c. Fuel the equipment in a safe place where spills can be contained and a fire extinguisher is nearby. Use the recommended gas/oil mixture and do not top off. Use a funnel or spout for pouring. Wipe off any spills.
- d. Do not refuel running or hot equipment. Dispense fuel at least 10 feet from sources of ignition.
- e. Do not use equipment in areas of dry vegetation. Keep leaves and dry materials away from a hot muffler.
- f. No smoking or open flame allowed near gasoline-powered equipment.

Summary of Hazards and Hazardous Materials Impacts from the Revised Project

Impacts related to hazards and hazardous materials would be consistent with those described in the 2021 MND, as the 40-acre parcel is located within the OAE zone of the UKIALUCP; within a Very High Fire Zone of the State Responsibility Area (not located within the UVFA district); and is not located on an identified hazardous site. Potential residential development associated with the Purchase Agreement would be of similar scale and intensity as that described in the 2021 MND. The Revised Project would implement mitigation measures HAZ-1 and HAZ-2 to reduce impacts related to hazards and hazardous materials. Contrary to the improvements included in the 2021 MND, there are no road or utility improvements currently proposed for the Revised Project. All

future improvements (road, electric, water, sewer) would be analyzed and provided by the property owner/developer, and residential development is required to comply with the R1-H development standards, as well as all applicable fire and building codes. As such, impacts from the Revised Project would be less than significant with mitigation.

J. Hydrology and Water Quality

Summary of Hydrology and Water Quality Impacts from the Western Hills Project 2021 MND

Future development would adhere to all applicable waste discharge requirements. Therefore, the Project would not violate any water quality standards. Water utilities will be developed by the property owner on-site to support the Development Parcels; approximately 130,000-gallons of storage will be provided by two 65,000 gallon tanks (34ft in diameter and 10.5ft high) that will be placed within the existing water tank pad site. According to the water tank planning study memorandum, prepared by GHD (December 10, 2020), the existing wells produce approximately 50,000 gallons per day and are located adjacent to the proposed tank. As a result, the developer proposes to supply the tanks with water from the wells rather than constructing new booster pump stations to pump water up to the tanks from the City's existing wells. Therefore, the Project would not substantially deplete groundwater resources and impacts would be less than significant.

The Project area contains two (2) Class II watercourses and four (4) Class III watercourses. However, The Project does not propose any modifications to existing culverts or watercourses. As noted in Mitigation Measures GEO-1 and HAZ-1, prior to any ground disturbance, erosion and sediment control plans shall be submitted to the Public Works and Community Development Departments for review and approval and shall include BMPs to address soil erosion and stormwater runoff associated with road and utility improvements. Additionally, construction projects that would disturb more than one acre of land, would be subject to the requirements of General Construction Activity Stormwater Permit which requires a Stormwater Pollution Prevention Plan (SWPPP) identifying specific BMPs related to stormwater pollution. The proposed Development Agreement does not include specific development designs or proposals, nor does it grant any entitlements for development. Future housing projects will be subject to County and City's development standards, building and safety codes, including review of stormwater management practices, where applicable. If future work in or adjacent to any of the other watercourses or culverts are proposed, the Developer is required to obtain necessary regulatory permits form the California Department of Fish and Wildlife and the Regional Water Quality Control Board, as necessary. Impacts associated with erosion and stromwater runoff would be less than significant with mitigation incorporated.

2021 MND Mitigation Measures: Implementation of GEO-1 and HAZ-1.

Summary of Hydrology and Water Quality Impacts from the Revised Project

Impacts from the Revised Project would be consistent with those described in the 2021 MND. However, no water tank or utility extensions are proposed with the Revised Project. Water and utilities would be analyzed and developed by the future property owner/developer for development of residential units.

A Class III watercourse is located in the northern portion of the site. While the Revised Project does not propose any modifications to existing culverts or watercourses, future development associated with residential construction and access/infrastructure could result in impervious

surfaces and erosion that could result in an impact to water quality. However, implementation of GEO-1 and HAZ-1 would reduce impacts to Less than Significant with mitigation.

K. Land Use and Planning

Summary of Land Use and Planning Impacts from the Western Hills Project 2021 MND

The Project area is undeveloped with the exception of an existing access road, firebreaks and previous land improvements for potential future housing development. While the Project would improve the existing access road and allow for potential future low-density residential development, it does not propose new linear features that would result in the division of an established community. Impacts would be less than significant.

The Project includes acquisition, annexation and prezoning of approximately 707 acres into the City's jurisdiction. The 54 acres associated with the Development Agreement and private access parcels would be prezoned to Single-Family Residential-Hillside Overlay District (R1-H) with a General Plan Designation of Low Density Residential (LDR), while the remaining 640 acres utilized for open space and municipal purposes would be prezoned Public Facilities (PF) with a Public (P) General Plan designation. Under Government Code Section 56742, city-owned parcels are not required to be located within the City's SOI. Parcels can be located anywhere in the County, as long as they are less than 300 acres, owned by the City, and used for municipal purposes at the time of the annexation application. Because the portion of the open space parcels proposed for annexation totals approximately 296 acres, and will be under city ownership for open space, this portion of the Project is consistent with the Government Code.

Under the provisions of the Government Code, the zoning district adopted by the City does not become effective unless and until the land is annexed into the City. The Development Agreement allows for a total of seven single-family homes and seven Accessory Dwelling Units (ADUs). However, once the parcels are annexed into the City, the site(s) would not be developed until an applicant submits a development on the Development Parcels (4-7) and obtains Planning Commission approval of a Use Permit to construct their home. All development would be constructed to R1-H standards, either through the City's discretionary process (Development Parcels 4-7), or within the County's jurisdiction (Development Parcels 1-3) by including R1-Hstandards in the Declaration of Covenants, Conditions, and Restrictions (CC&Rs). In addition, although not required, the mitigation measures contained within the 2021 MND for residential development will also be included in the CC&Rs.

2021 MND Mitigation Measures: None.

Summary of Land Use and Planning Impacts from the Revised Project

The Revised Project includes acquisition, annexation, and prezoning of an additional 40 acres; 25 acres would be for open space and municipal purposes, and 15 acres would be available for development of three single-family homes and three ADUs (six units total). Impacts associated with the Revised Project would be consistent with those described in the 2021 MND, as the use, intensity and type of development that could be facilitated would be consistent with the original project.

Since approval of the original project and 2021 MND, the City adopted its 2040 General Plan. As a part of the General Plan, the Western Hills Annexation Area (including the 707 acres within the original project and MND, as well as the additional 44 acres of "clean up" parcels), the City's Sphere of Influence (SOI) and Planning Area were also updated and analyzed. The updated (now existing) boundaries of the SOI include the 707 acres included in the original project, and Western Hills Annexation Area. The 40 acres proposed as a part of the Revised Project were not included

in the amended SOI nor the Western Hills Annexation Area identified in the General Plan and associated EIR. However, the 40 acres would be owned by the City at the time of annexation and is within the City's updated Planning Area, consistent with the intent of Government Code Section 56742. Additionally, the proposed 40-acre parcel being included in the Western Hills Annexation Area would result in a more orderly, contiguous and less peninsular annexation area than the current configuration, which is supported by LAFCo policies.

Consistent with the impacts discussed within the 2021 MND, the 25 acres proposed for open space and municipal purposes is consistent with the intent of the PF zoning and P land use designation. While the City notes the desire to obtain potential trail opportunities in the future, no such uses are proposed at this time. Acquisition of property for open space opportunities is supported by the General Plan.

The 15 acres proposed for limited single family residential development that could be facilitated by the Revised Project is consistent with the rural, low density, single family residential development and intensities currently existing within western Ukiah and prescribed within the Ukiah Valley Area Plan and County zoning. Specifically, the current land use designation is Remote Residential, 40 Acre Minimum ("RMR-40") and the existing County zoning designation is Upland Residential, 40-acre minimum ("UR-40") are intended to be applied to lands having constraints for commercial agriculture, timber production or grazing, and are well suited for small scale farming and low density agricultural and residential uses. Both the existing RMR-40 land use designation and UR-40 zoning designation allow for one dwelling unit (and one ADU) per 40 acres.

As described within the Land Use Element of the City's 2040 General Plan, the Hillside Residential (HR) land use designation replaces previous (1995 General Plan) Rural Residential designation in areas in the hillsides west of Highland Avenue and Park Boulevard, with a maximum allowable density of one dwelling unit per gross acre. The intent of this designation is to allow for single-family residential at a lower density to align with the goal of reducing development in designated High Fire Hazard Areas. Similarly, the Hillside Overlay District (-H or R1-H) is intended to encourage planning, design, and development while preserving natural physical features and minimizing potential safety, water runoff and soil erosion concerns associated with the natural terrain.

The Purchase Agreement associated with the Revised Project would allow creation of three development parcels (in accordance with R1-H standards and the Subdivision Map Act) within the 15 easternmost acres of the 40-acre parcel and would further restrict development to one single family dwelling per parcel and one ADU (except for in cases were the slope exceeds 50 percent, per the City's Hillside Overlay Ordinance). All development within the R1-H district requires discretionary review (Planning Commission approval) and would be subject to all R1H development regulations (including slope, density, setbacks, height, fire safety and water requirements, access requirements, etc.) contained within the Hillside Overlay District. Development within the Hillside Overlay District also includes submittal of the following: soil and geological reports, subsurface investigations, grading plans, vegetation reports, grading plans, hydrology reports, and structure elevations. Each home would require approval of a Use Permit and/or Site Development Permit by the Planning Commission, as well as approval of a Building Permit, which includes additional review and approval by County and City departments.

Lastly, the Revised Project is consistent with General Plan Goals ENV-1, ENV-4, LU-6, LU-7, LU-8 and LU-9 (and Polices ENV 1.2, LU 6.1, 6.2, 6.3, 7.1, 7.2 and 8.1) which support annexation and orderly development of lands contiguous to the City limits, as well as open space preservation, protection of hillsides and development of all housing types.

L. Mineral Resources

Summary of Mineral Resources Impacts from the Western Hills Project 2021 MND

There are no identified mineral resources within the Western Hills Project area. No impact would occur.

2021 MND Mitigation Measures: None.

Summary of Mineral Resources Impacts from the Revised Project

Consistent with the analysis within the 2021 MND, there are no mineral resources within the Revised Project parcel and no impact would occur.

M. Noise

Summary of Noise Impacts from the Western Hills Project 2021 MND

Certain land uses are particularly sensitive to noise, including schools, hospitals, rest homes, long-term medical and mental care facilities, and parks and recreation areas. Residential areas are also considered noise sensitive, especially during the nighttime hours. The nearest existing sensitive receptors are residential uses adjoining the Project site to the east and south along Redwood Avenue; the closest residence being more than 700 ft away from the potential house site on proposed Parcel 1. However, construction related noise would be considered temporary. In addition, to reduce potential noise impacts to nearby sensitive receptors, Mitigation Measure NOI-1 would require compliance with the City's allowed hours of construction (7:00 a.m. to 7:00 p.m.), include Best Management Practices (BMPs) for reducing construction noise, and require construction equipment to be equipped with properly operating and maintained mufflers and other state-required noise attenuation devices. Noise impacts associated with construction of the Western Hills Project would be less than significant with mitigation incorporated.

Operation of the Western Hills Project would result in stationary noise sources associated with typical residential land uses (e.g., mechanical equipment, dogs/pets, landscaping activities, cars parking, etc.). These noise sources are typically intermittent and short in duration and would be comparable to existing sources of noise experienced at surrounding residential uses. The Project is also anticipated to use typical construction equipment for temporary periods of time that would not be considered excessive. As such, impacts from operation of the Western Hills Project would be less than significant.

The nearest airport is the Ukiah Municipal Airport, located approximately 0.79-mile east of the Western Hills Project site. The Project is located within the Other Airport Environs (OAE) Compatibility Zone of the Ukiah Municipal Airport Land Use Compatibility Plan (UKIALUCP). Within this airport influenced area, no limits are prescribed with regard to intensity of use, density of dwelling units, nor are there any open land requirements specific to airport safety considerations. Noise and overflight factors are considered minimal, but there may be occasional overflights which may be intrusive to some outdoor activities. In general, the risk level for this zone is low, and no specific safety or airspace protection factors are identified.

For the reasons discussed above, impacts related to noise as a result of the Western Hills Project would be less than significant with mitigation.

2021 MND Mitigation Measures:

NOI-1: Prior to building permit or grading permit issuance, the developer shall comply with the following:

- a. Construction contracts shall specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other state-required noise attenuation devices.
- b. Construction haul routes shall be designed to avoid or lessen impacts to noise-sensitive uses (e.g., residences, schools, convalescent homes), to the extent feasible.
- c. During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers.
- d. *Per the City's Noise* Ordinance, construction shall not take place outside of the hours of 7:00 a.m. to 7:00 p.m.

Summary of Noise Impacts from the Revised Project

Impacts related to noise as a result of the Revised Project would be consistent with those described in the 2021 MND, as it is also located within the OAE zone of the UKIALUCP, and future potential construction would adhere to the City's noise regulations and Mitigation Measure NOI-1. Impacts related to noise as a result of the Revised Project would be less than significant with mitigation.

N. Population and Housing

Summary of Population and Housing Impacts from the Western Hills Project 2021 MND

The current Ukiah Valley Area Plan land use designation of the Western Hills Project parcels is Remote Residential, 40 Acre Minimum ("RMR40") and the existing zoning is Upland Residential, 40-acre minimum ("UR:40"). Under the County's General Plan and Zoning Ordinance, the entirety of the 707 acres has the potential to be developed with up to one dwelling per 40 acres, for a total of 17 primary dwellings. In addition, an ADU may be constructed as of right on each parcel, resulting in the potential for up to 34 total units to be developed.

Once annexed, 54 acres could be developed with up to 14 residential units (seven single family homes and one associated ADU per lot) through the proposed Development Agreement. Although no development is proposed at this time, for this analysis it is assumed that future development of all Development Parcels would result in construction and development of residential uses on the site. As a part of the Project, utilities would be extended to the area. However, because the extension of utilities would be limited to the seven Development Parcels that are currently zoned for rural residential development, the Project, including development of up to 14 units, would not directly induce substantial unplanned development and population growth in the area. The remaining 640 acres that would be preserved as open space would not be developed with residential uses that could result in an increase in population. For the aforementioned reasons, the Western Hills Project would not induce substantial unplanned population growth in an area, either directly or indirectly. Impacts would be less than significant.

2021 MND Mitigation Measures: None.

Summary of Population and Housing Impacts from the Revised Project

Once annexed, under the City's jurisdiction and the Purchase Agreement associated with the Revised Project, 15 acres of the 40-acres could be split into three (3), five-acre parcels and developed with three single family homes and three ADUs, in accordance with R1-H zoning and development regulations. The remaining 25 acres would be prezoned PF, and no residential development would occur within this area. As analyzed within the 2040 General Plan EIR (Land Use Section), the maximum buildout potential assumed within the General Plan would result in an additional 2,350 housing units and an additional 4,514,820 non-residential square footage (City

of Ukiah 2022). This buildout is projected to occur specifically within the existing City limits and Annexation Areas. However, the six additional units would be included in the existing Planning Area and the amended Western Hills Annexation Area. Although the Revised Project would allow for the potential of six additional units than the original Western Hills Project, and four additional units when compared to the existing County zoning regulations, this change in potential units (and population) would not be considered substantial. Impacts would be less than significant.

O. Public Services

Summary of Public Services Impacts from the Western Hills Project 2021 MND

Police protection services for the entire City limits is provided by the Ukiah Police Department, while the Mendocino County Sherriff's Department provides police services for areas outside of the City limits. Fire protection services in the Ukiah Valley are provided by the Ukiah Valley Fire Authority and California Department of Forestry and Fire Protection (Cal Fire). Educational facilities in the Ukiah Valley area are provided by the Ukiah Unified School District (UUSD), County Office of Education, and the Mendocino-Lake Community College District. There are also several private and charter schools serving residents within the City of Ukiah, as well as the unincorporated portions of Mendocino County.

Although no development is proposed at this time, it is assumed that future development would result in construction and development of residential uses (up to 14 units) on the site. New homes in the City's jurisdiction would be served by the City's Police Department and the Ukiah Valley Fire authority. This minimal increase in service area would not be considered significant, as fire and police impact fees are collected for new construction to offset the financial burden that new development can potentially create for the fire department. Similarly, it is not anticipated that the additional residential units, currently already being served by existing school districts, would result in a significant impact to school services. Lastly, as discussed in Section 16, Recreation of the 2021 MND, the increase in residential units would not be considered significant and future development would be required to pay park impact fees, which are used to assist in the development and maintenance of parks and recreation facilities.

Lastly, future residential development would be assessed, and impact fees for all aforementioned public services would be collected during the Building Permit process. As such, the Project would have a less than significant impact on public services.

2021 MND Mitigation Measures: None.

Summary of Public Services Impacts from the Revised Project

Impacts associated with the Revised Project would be consistent with those identified in the 2021 MND, as new homes in the City's jurisdiction (once annexed) would be served by the City's Police Department and the Ukiah Valley Fire authority. Future residential development would be assessed, and impact fees for all aforementioned public services would be collected during the Building Permit process. As such, the Project would have a less than significant impact on public services.

P. Recreation

Summary of Recreation Impacts from the Western Hills Project 2021 MND

The Western Hills Project does not propose any recreational facilities at this time. However, the City does have aspirations to develop trails and recreational open space areas at some point in

the future. Potential development of up to 14 new residential units would increase population, and in turn, increase the use of existing recreation facilities. However, the increase in population would not be considered significant and future development would be required to pay all park impact fees, which are used to assist in the development and maintenance of parks and recreation facilities. As such, impacts would be less than significant on park facilities.

2021 MND Mitigation Measures: None

Summary of Recreation Impacts from the Revised Project

Consistent with the analysis within the 2021 MND, the Revised Project does not propose any recreational facilities at this time. However, the City does have aspirations to develop trails and recreational open space areas at some point in the future, and acquisition of the Revised Project parcel provides potential access opportunities to the remaining Western Hills open space parcels. If, and when the City wishes to pursue development of such recreational opportunities, it would be analyzed under CEQA on a project-level basis at that time. As such, impacts to recreation as a result of the Revised Project would be less than significant.

Q. <u>Transportation</u>

Summary of Transportation Impacts from the Western Hills Project 2021 MND

Based on information and analyses contained within the Office of planning and Research (OPR) Technical Advisory on Evaluating Transportation Impacts Under CEQA and the Fehr & Peers Baseline Study, the construction of up to 22 units in Mendocino County would be considered a 'small project' and screened out of further analysis for vehicle miles traveled (VMT). Because the Project would ultimately allow a max buildout of seven single family residential units and the possibility of associated ADUs, the Project may be screened out of further VMT analysis. Nonetheless, since the Project site is currently undeveloped, any development with related vehicle use would increase VMT. In this case, there would be an increase in traffic to and from the site during both construction and operation of the Project. It is expected that construction of the Project would result in a temporary increase in traffic to and from the site, as construction workers arrive and leave each workday. In addition, minor increases to traffic on adjacent streets (specifically Redwood Avenue and Helen Avenue) could occur when heavy equipment required for construction is traveling to and from the site. However, once construction is complete, workers would no longer be traveling to the site, and the source of VMT would result from permanent residents. VMT generated from the Project would be similar to that of existing low-density residential development and would be considered less than significant.

Additionally, the Western Hills Project would not conflict with identified Major Improvements, Goals, Policies or Objectives identified in the 2017 RTP. Additionally, the Ukiah Valley Area Plan (2011) identifies future conceptual roadway improvements for the plan area. The 2021 Western Hills Project does not conflict with the UVAP's recommendations and conceptual road improvements, because these recommendations address gaps in the street system expand capacity where future congestion levels are anticipated, and development of parallel north/south facilities.

2021 MND Mitigation Measures: None

Summary of Transportation Impacts from the Revised Project

Impacts to transportation related to the Revised Project would be similar, if not less than those described in the 2021 MND, as the Revised Project does not propose road or utility improvements.

However, the Revised Project would allow for the development of three single family homes and three ADUs. Development of potential homes may require road and utility improvements to facilitate development. However, such improvements are not proposed at this time.

Since the 2021 MND was approved, the City adopted the 2040 General Plan. As a part of the General Plan Environmental Impact Report (EIR), the City identified that the following projects are expected to result in less than significant impacts: small projects that meet existing categorical CEQA exemptions, all, employment uses in areas with a diverse mix of land uses, local serving retail, projects in proximity to a major transit stop, transportation projects, and all residential projects. For more information, please refer to Section 4.11, Transportation, and Appendix D of the City's General Plan Environmental Impact Report, which may be accessed online at: https://ukiah2040.com/images/docs/Ukiah 2040 Compiled Appendices.pdf

Because the Revised Project would include open space and limited residential development, it meets the City's adopted VMT thresholds. As such, the Revised Project would have a less than significant impact on transportation.

R. <u>Tribal Cultural Resources</u>

Summary of Tribal Cultural Resources Impacts from the Western Hills Project 2021 MND

As described in Section 5, Cultural Resources of the 2021 MND, no cultural resources were identified within the Project area as a result of the records search, literature review, or archaeological field survey. In addition, due to its topography, the site is considered to have a "low potential" for cultural, archeological, and historic resources.

Although no tribes have contacted the City of Ukiah to request notification under AB 52, tribal notifications offering the opportunity to request formal consultation were sent to local tribes on December 15, 2020. In addition, a request seeking a list of tribes that should be contacted was sent to the NAHC. Notices were sent to the additional tribes identified by the NAHC on January 14, 2021. On January 28, 2021, a request for formal consultation by the Pinoleville Pomo Nation was received; AB52 consultation was concluded with the tribe on May 3, 2021. Correspondence with Pinoleville Pomo Nation has been omitted for confidentiality.

Despite the negative findings and the low potential for resources to occur on-site, there is potential for resources to be inadvertently discovered during ground disturbing activities. Therefore, Mitigation Measures CUL-1 and CUL-2 would be implemented. Impacts to would be less than significant with mitigation.

2021 MND Mitigation Measures: Implementation of CUL-1 and CUL-2.

Summary of Tribal Cultural Resources Impacts from the Revised Project

Impacts to tribal cultural resources from the Revised Project would be consistent, if not less than, those described in the 2021 MND because the Revised Project does not propose ground disturbing activities at this time. Regardless, there is potential for future activities to result in the inadvertent discovered of resources. However, Mitigation Measures CUL-1 and CUL-2, which are effectively are required by the Public Resources Code for all development, would be implemented. Impacts to would be less than significant with mitigation.

S. <u>Utilities and Service Systems</u>

Summary of Utilities and Service Systems Impacts from the Western Hills Project 2021 MND

Sewer and water will be developed by the property owner, while electric infrastructure will be developed by the property owner and/or the City. All utilities would be owned and maintained by the HOA, with the exception of electric, which will be ultimately maintained by the City. Development of utilities could result in physical impacts to the environment. However, all utilities will be undergrounded and located within or adjacent to existing access roads, on private parcels and previously disturbed areas. In addition to serving the proposed residential developments, two water tanks will be installed to add new water storage and fire protection facilities in the Western Hills. No other development is proposed at this time. With incorporation of mitigation measures described in Biological Resources, Geology and Soils, and Hydrology and Water Quality, impacts related to expansion of utilities would not result in a significant impact to the environment. Impacts would be less than significant with mitigation measures incorporated.

The project is anticipated to use 14 equivalent sanitary sewer units (ESSUs). The City's Wastewater Treatment Plant (WWTP) currently has available, between the City of Ukiah and the Ukiah Valley Sanitation District (UVSD), 1,571 ESSUs. The WWTP has capacity to serve this development and impacts would be less than significant.

Based on information provided on CalRecycle's website, the Potrero Hills Landfill has a maximum permitted throughput of 4,330 tons per day and a remaining capacity of 13.872 million cubic yards, and is estimated to remain in operation until February 2048. As such, the proposed would not negatively impact the provision of solid waste services or impair the attainment of solid waste reduction goals. A less than significant impact would occur.

Mitigation Measures: Implementation of BIO-1 through BIO-5, and GEO-1.

Summary of Utilities and Service Systems Impacts from the Revised Project

The 40-acre parcel proposed for inclusion under the Revised Project is located within the UVSD's service boundary, but is not located within an established water district, nor within the UVFA boundary.

As a part of the Purchase Agreement, the developer is retaining exclusive right to the on-site well on the neighboring property to provide water and on-site storage for fire mitigation requirements. If the developer wants to pursue utility services, the parcel is within the UVSD boundaries. It is not currently within a water district but is contiguous with City of Ukiah Water services.

Contrary to the original Western Hills Project, the Revised Project does not propose any connections to City utilities or infrastructure at this time. The City is retaining rights to easements for underground utilities (water and/or electric within the roadway) but has no plans now to utilize these easements. Sewer, water and electric utilities would be analyzed and provided to the future development by the property owner/developer. All development would be required to comply with all regulations pertaining to wastewater, solid waste, and other service systems.

While the impacts to utilities and services systems within the 2021 MND were determined to be less than significant with mitigation (related to trenching and ground disturbing activities), the impacts resulting from the Revised Project would be less than significant (without mitigation), as no utility extensions with associated ground disturbing activities are proposed.

T. Wildfire

Summary of Wildfire Impacts from the Western Hills Project 2021 MND

The Project area is developed with fuel breaks and has been subject to vegetation management practices in order to reduce fuel load within the Western Hills. The Project site is developed with an existing access road that varies from 18 ft to 35 ft, wide with the majority of it being a minimum of 20 ft wide. The sections that are 18 ft wide are short in length (approximately 100 ft long) and have wide turnouts immediately before or after them. Both the California Department of Forestry and Fire Protection (Cal Fire) and the Ukiah Valley Fire Authority (UVFA) have reviewed the Project and conducted a site visit. The existing gravel access road will be improved with asphalt and a cul-de-sac, in accordance with all current fire and safety codes applicable to the Project. The proposed improvements would increase the level of fire protection to the Project area. The Project also includes installation of water tanks and fire hydrants to add new water storage and fire protection facilities in the Western Hills. Per the California Fire Code, a portion of the water (varies based on size and number of homes) will be required to be allotted for fire protection services and cannot be used for residential use; this will be accomplished by a float switch that will be installed in the tanks. In addition, Public Resources Code Sections 4290 and 4291 contain additional requirements for lands within Very High Fire Severity Zones that would apply to the Project. These include, but are not limited to, the following which are designed to provide defensible space and fire protection for new construction and ensure adequate emergency access: increased property line setbacks for all applicable construction; on-site water storage for fire protection, driveway/roadway types and specifications based on designated usage; all weather driveway/roadway surfaces being engineered for 75,000lb vehicles; maximum slope of 16%; turnout requirements; gate requirements and setbacks, parking standards, fuels reduction regulations, etc. All future residential development would be reviewed by the fire department and be required to adhere to all fire safety standards, including those etc.

There are no components of the Project that would conflict with, or impair the adopted MJHMP, EOP, or other adopted emergency response plan or emergency evaluation plan. For the reasons stated, the Project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires, and would not impair emergency access. Impacts would be less than significant.

As described in Section 9, Hazards and Hazardous Materials, of the 2021 MND, installation of infrastructure and construction of the Project may involve the use of gasoline-powered tools and equipment potentially introducing new temporary sources of ignition that could increase fire risk. However, implementation of Mitigation Measure HAZ-2 will reduce impacts to less than significant. Less than significant with mitigation incorporated.

Mitigation Measures: Implementation of HAZ-2

Summary of Wildfire Impacts from the Revised Project

Once under the City's jurisdiction, the 25 acres would be maintained for fire protection. The properties will undergo an initial evaluation with an environmental survey and habitat assessment components, to determine the best treatment approach for fire mitigation efforts. The City plans to develop a Forest Management Plan in coordination with the Mendocino County Fire Safe Council for City-owned properties within the Western Hills.

As a part of the Purchase Agreement, the developer is retaining exclusive right to the on-site well on the neighboring property to provide water and on-site storage for fire mitigation requirements.

The Project site is developed with an existing access road that varies from 16 ft to 20 ft, wide that will be required to be improved to current fire and building codes at the time of development. Additionally, the Revised Project will comply with all applicable goals and policies contained within the City's Safety Element related to wildfire and development, such as adherence to Public Resources Code Sections 4290 and 4291 that contain additional requirements for lands within Very High Fire Severity Zones.

There are no components of the Project that would conflict with, or impair the adopted MJHMP, EOP, or other adopted emergency response plan or emergency evaluation plan. For the reasons stated, the Project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires, and would not impair emergency access. Impacts would be less than significant.

4. Mandatory Findings of Significance

Summary of Impacts Disclosed in 2021 MND

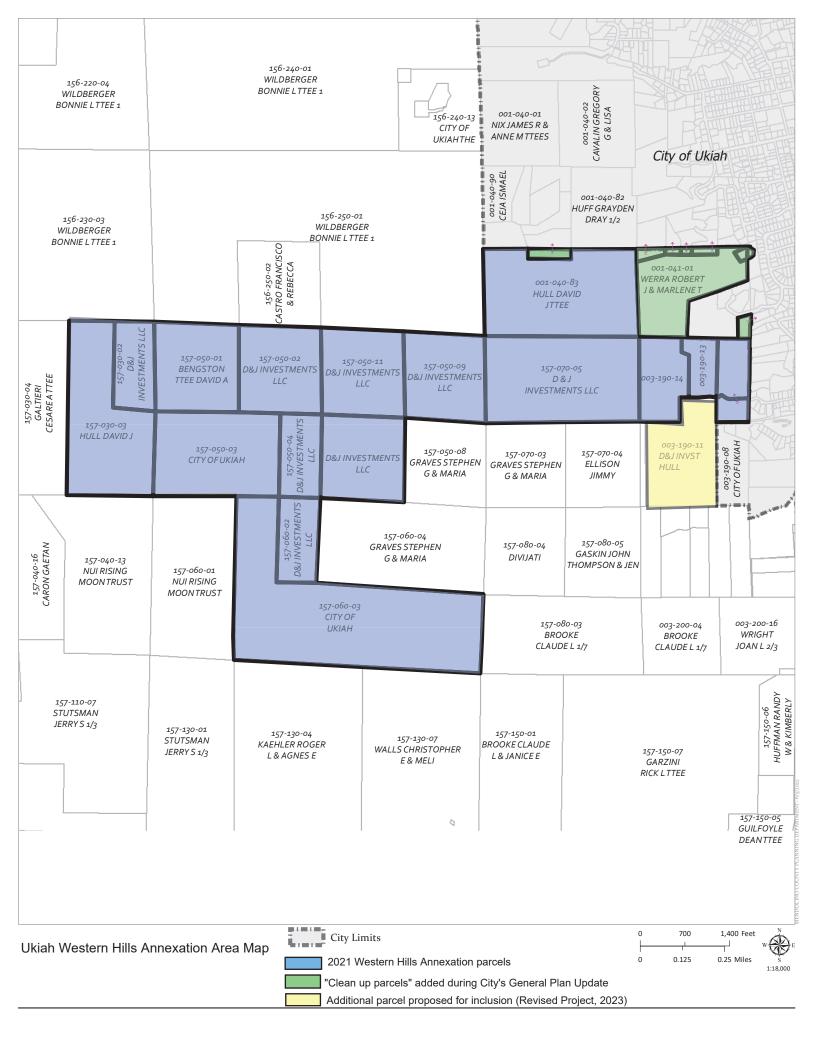
Project components including the acquisition, annexation, and prezoning of parcels, in addition to the Lot Line Adjustments, would not directly result in physical impacts to the physical environment. However, infrastructure improvements and the potential construction of up to seven single-family homes and seven associated ADUs, for a total of 14 units within the easternmost 54 acres of the Project area, could occur under the Development Agreement. Hull Properties is choosing to require the single-family homes to be constructed to R1-H standards by including them in the Declaration of Covenants, Conditions, and Restrictions (CC&Rs) for Development Parcels 1-3. In addition, although not required, the mitigation measures contained within the ISMND for residential development will also be included in the CC&Rs. Development Parcels 1-3 will still be included in the application for annexation and prezoned to R1-H. Although residential development is not proposed at this time and the 2021 Western Hills Project would not grant any entitlements, this analysis assumes that the development will occur on all Development Parcels, both under the County and City's jurisdiction. As described throughout the Initial Study, construction and ground disturbing activities associated with these components could result in direct significant impacts to Air Quality, Biological Resources, Cultural /Tribal Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Utilities and Service Systems, and Wildfire. However, mitigation measures identified within the aforementioned sections would reduce impacts to less than significant with mitigation incorporated.

Cumulative impacts are generally considered in analyses of Air Quality, Biological Resources, Cultural Resources, Noise, and Traffic. As discussed throughout the Initial Study, the 2021 Western Hills Project would have less than significant impacts on these resources with implementation of mitigation measures described herein. As discussed in Section 14, Population and Housing, as well as Section 11, Land Use and Planning, the potential development of up to 14 units would not induce substantial unplanned population growth in an area, either directly or indirectly. Individual impacts from the 2021 Western Hills Project would not significantly contribute to cumulative impacts in the area as there are no known past projects nor current projects within the vicinity of the site. However, all future housing development would be analyzed on a project level basis for direct, indirect, and cumulative impacts, as necessary.

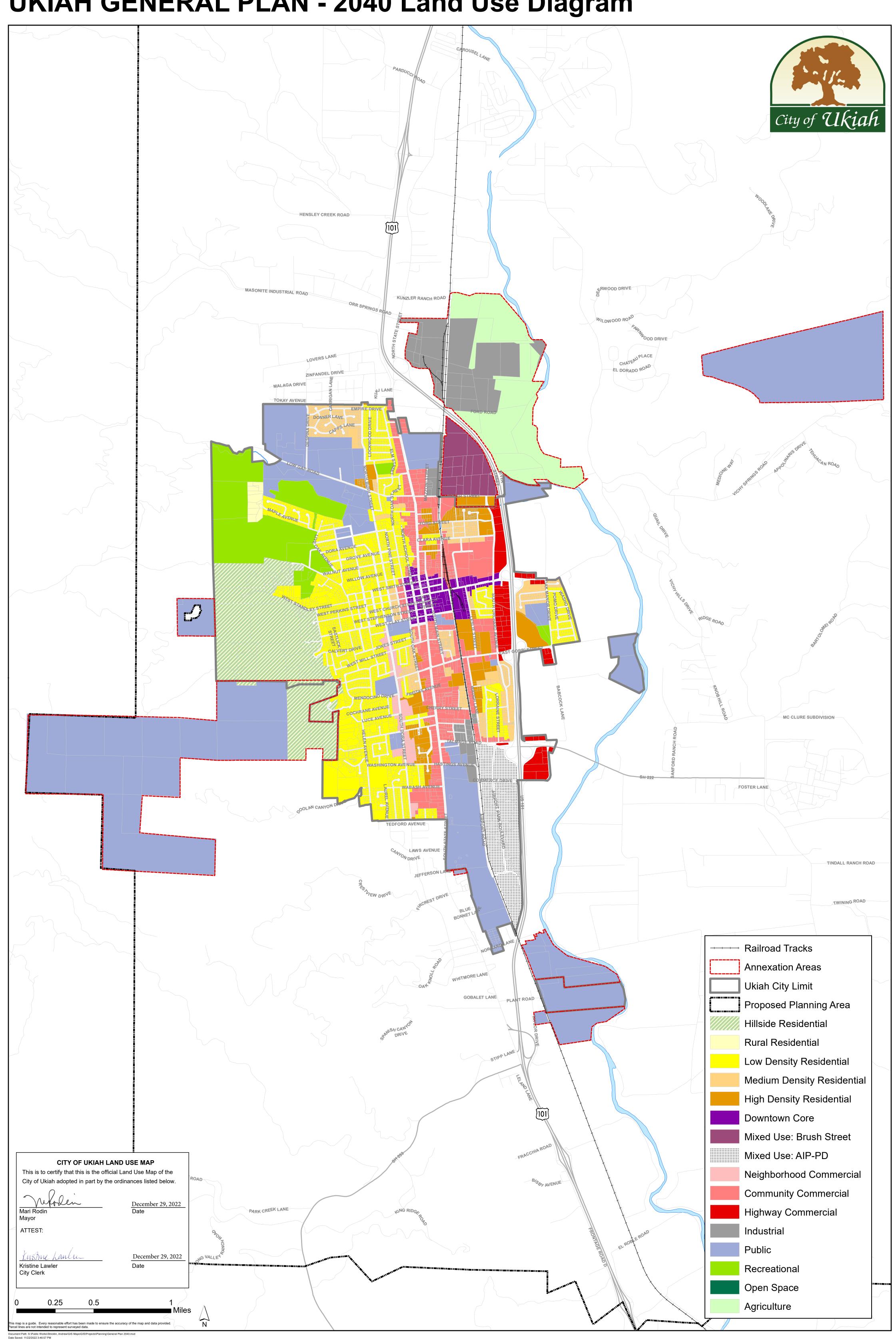
Summary of Impacts from Revised Project

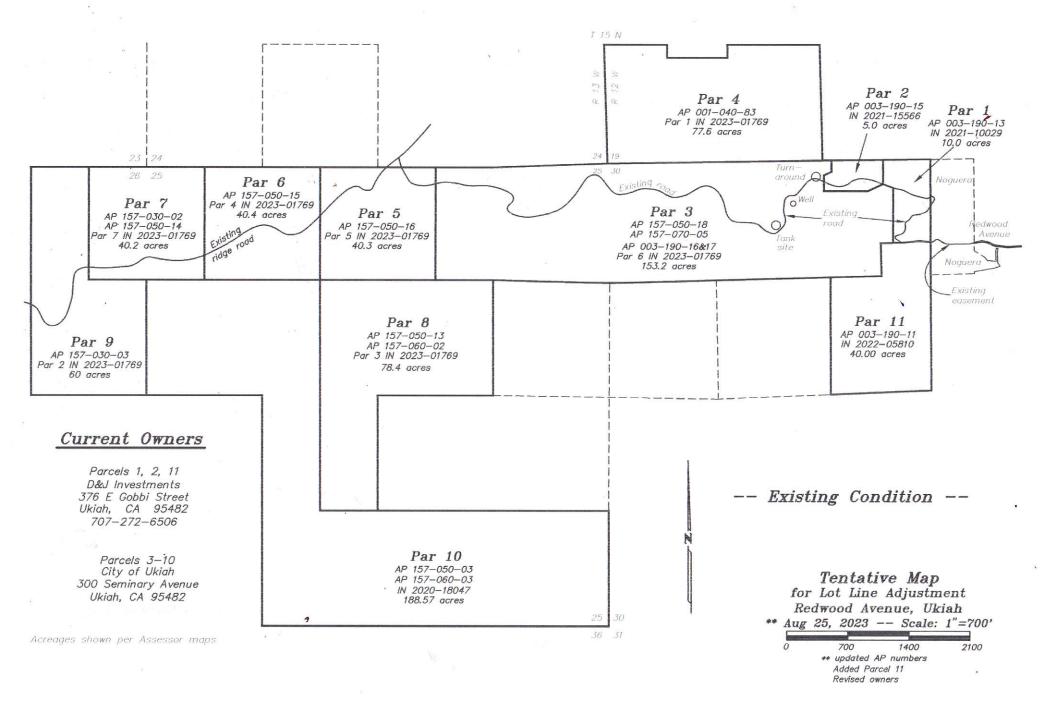
Impacts associated with the Revised Project would be consistent, if not less than, those disclosed within the 2021 MND and within the 2040 General Plan EIR related to the Western Hills Annexation Area. Specifically, the 40-acres proposed for inclusion in the Western Hills Annexation

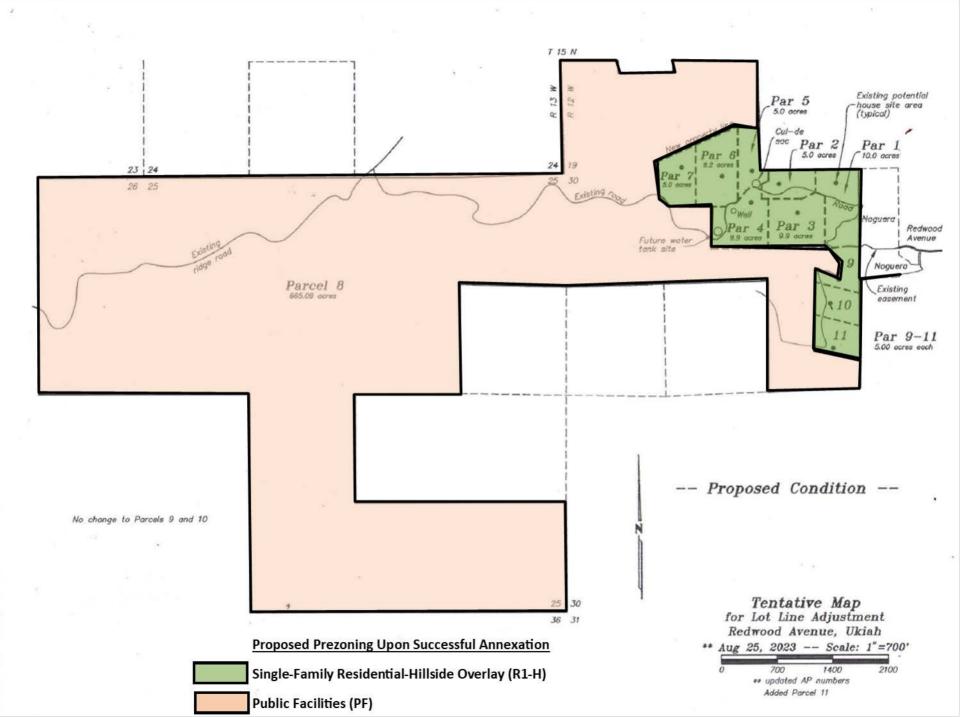
Area contains similar terrain, vegetation and scenic quality as the parcels previously analyzed. While the Revised Project does not include road and/or utility improvements, which would result in less impacts described within the 2021 MND associated with groundwork, grading, and vegetation removal associated with those components, the Purchase Agreement would allow for potential development of up to six additional units within a 15-acre area, in accordance with the R1H zoning regulations. Similar to the analysis contained within the 2021 MND, the exact location of the potential development parcels and residential units is unknown at this time. However, all future development would be subject to discretionary and environmental review and be required to comply with City regulations for height, setbacks, and other development standards established to protect natural features and scenic resources within the Western Hills. The Revised Project would incorporate mitigation measures from the 2021 MND to reduce impacts to Air Quality, Biological Resources, Cultural/Tribal Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Noise, and Wildfire. Consistent with the 2021 MND, all impacts, including cumulative impacts, associated with the Revised Project would be less than significant with mitigation incorporated. See Mitigation, Monitoring and Reporting Program in Attachment D.



UKIAH GENERAL PLAN - 2040 Land Use Diagram







MITIGATION MONITORING REPORTING PROGRAM (as adopted for the "2021 Western Hills Project")

Potential Impact	Mitigation Measure	Implementation Responsibility	Monitoring & Reporting Responsibility	Timing	Date Implemented
Construction and ground disturbing activities could result in short-term impacts to air quality.	 AQ-1: Diesel Engines – Stationary and Portable Equipment and Mobile Vehicles: a. Any stationary onsite diesel IC engines 50 horsepower or greater (i.e. large power generators or pumps) or any propane or natural gas engines 250 horsepower or greater may require a permit from the District. b. Portable diesel powered equipment that may be used during the proposed project are required to be registered with the state Portable Equipment Registration Program (PERP) or obtain permits from the District. c. Projects located adjacent to sensitive receptors (schools, child care facilities, health care facilities, senior facilities, businesses, and residences, etc.) during the construction phase of this project have the potential for exposure to diesel particulate. d. Heavy duty truck idling and off-road diesel equipment or other diesel engine idling is limited to less than 5 minutes. 	Developer	Developer	During construction and ground disturbing activities	
	AQ-2: Grading Projects- During Construction-All grading activities must comply with the following fugitive dust mitigation measures in accordance with District Regulation 1, Rule 1-430: a. All visibly dry disturbed soil road surfaces shall be watered to minimize fugitive dust emissions.	Developer	Developer	During construction and ground disturbing activities	

b	o. All unpaved surfaces, unless otherwise treated
	with suitable chemicals or oils, shall have a
	posted speed limit of 10 mph.
	Earth or other material that has been
	transported by trucking or earth moving
	equipment, erosion by water, or other means
	onto paved streets shall be promptly removed.
	I. Asphalt, oil, water, or suitable chemicals shall
	be applied on materials stockpiles, and other
	surfaces that can give rise airborne dusts.
l e	e. All earthmoving activities shall cease when
	sustained winds exceed 15 mph.
l f	· · · · · · · · · · · · · · · · · · ·
	to prevent the entry of unauthorized vehicles
	onto the site during non-work hours.
l g	
	to control fugitive dust.
	i. For projects greater than one acre or one mile
	of road not located within a Naturally Occurring
	Asbestos Area, prior to starting any
	construction the applicant is required to:
	Submit a Large Area Grading permit
	application to the District.
	Obtain a final determination from the Air
	Quality Management District as to the need
	for an Asbestos Dust Mitigation Plan and/or
	Geologic Survey to comply with CCR
	sections 93106 and 93105 relating to
	Naturally Occurring Asbestos.
	3. Obtain written verification from the District
	stating that the project is in compliance with
	State and Local regulations relating to
	Naturally Occurring Asbestos.
	4. If the project is located within a Naturally
	Occurring Asbestos Area, additional
	mitigations shall be required.

		T	1		
	 AQ-3: Property Development-Prior to starting any construction, the applicant is required to: a. Obtain a Property Development Permit from the District for any open outdoor burning. b. Obtain a Grading Permit, if applicable. c. Confirm whether the project is in a Naturally Occurring Asbestos Area, and follow additional MCAQMD recommendations, if applicable. d. Consider alternate means of disposal other than open burning, such as cutting the majority of the larger material up as firewood, and chipping smaller material, if feasible to mitigate impacts from open outdoor burning. e. Obtain written verification from the MCAQMD stating that the project is in compliance with State and Local regulations. 	Developer	Developer	Prior to construction	
Biological Resou	rces				
Construction and ground disturbing activities could result in impacts to sensitive plant species	BIO-1: Special-Status Plants. Full USFWS protocol-level sensitive plant species surveys for Mendocino tarplant, congested headed hayfield tarplant, bristly leptosiphon, broad-lobed leptosiphon, redwood lily, green monardella, white-flowered rein orchid, Mayacamas popcornflower, beaked tracyina, showy Indian clover, and ovalleaved viburnum within the blooming period (generally March-August) shall be conducted prior to any ground disturbing activities to verify the presence of special status plants, and identify additional mitigation if needed, to ensure that the project will not result in a significant impact.	Qualified Biologist	Developer	Prior to ground disturbing activities	

Construction and ground disturbing activities could impact Red-belly newt and their habitat	BIO-2: Red-belly newt. A qualified biologist shall survey the area prior to any groundbreaking activities to determine the presence of Red-belly newt, and identify additional avoidance measures, if needed.	Qualified Biologist	Developer	Prior to ground disturbing activities
Construction, vegetation removal, and ground disturbing activities could impact nesting birds and their habitat	BIO-3: Nesting Birds. Pre-construction surveys shall be conducted prior to any vegetation removal or ground disturbing activities occurring between March 1 and August 31 of any year. All active bird nests shall not be removed, relocated, or otherwise disturbed for any purpose until all fledglings have left the nest.	Qualified Biologist	Developer	Prior to vegetation removal or ground disturbing activities between March 1 and August 31
Construction and ground disturbing activities could impact special-status insects and their habitat	BIO-4: Special-Status Insects. A qualified biologist shall survey the area prior to any groundbreaking activities to determine the presence of special-status insect species and identify additional avoidance measures if needed. If a special-status insect nests are observed, active nests shall not be removed, relocated, or otherwise disturbed until the nest becomes inactive.	Qualified Biologist	Developer	Prior to ground disturbing activities
Construction and ground disturbing activities could impact special-status mammals and their habitat	BIO-5: Special-Status Mammals. Pre-construction surveys shall be conducted prior to any vegetation removal or ground disturbing activities. If evidence of bat roosts is observed (i.e. bat guano, ammonia odor, grease stained cavities) around trees or structures, pre-construction bat surveys shall be conducted by a qualified biologist for activities that may affect bat roosting habitat and den sites.	Qualified Biologist	Developer	Prior to ground disturbing activities

	1		T		<u> </u>
Cultural Resource	es and Tribal Cultural Resources				
Ground disturbing activities have the potential for accidental discovery of unknown, undiscovered cultural resources and tribal cultural resources	CUL-1: Unanticipated Discovery. If previously unidentified cultural, historic, palentologic or archeologic resources are encountered during project implementation, altering the materials and their stratigraphic context shall be avoided and work shall halt immediately. A qualified professional archaeologist shall be contacted to evaluate the resource and methods necessary to protect it. Project personnel shall not collect, move, or disturb cultural resources. Prehistoric resources include, but are not limited to, chert or obsidian flakes, projectile points, mortars, pestles, and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic resources include stone or abode foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.	Qualified archaeologist	Developer	During ground disturbing activities	
Ground disturbing activities have the potential for accidental discovery of unknown Native American remains	CUL-2: Encountering Native American Remains. If human remains are encountered during ground disturbing activities, all work shall stop in the immediate vicinity of the discovered remains and the County Coroner and a qualified archaeologist shall be notified immediately so that an evaluation can be performed. If the remains are deemed to be Native American and prehistoric, the Native American Heritage Commission must be contacted by the Coroner so that a "Most Likely Descendant" can be designated and further recommendations regarding treatment of the remains will be provided.	Qualified archaeologist	Developer	During ground disturbing activities	

Geology and Soil	Geology and Soils					
Ground disturbing activities could result in impacts associated with erosion, the loss of topsoil and landslides if not properly designed	Incorporation of Mitigation Measure CUL-1	Qualified archaeologist	Developer	During ground disturbing activities		
	GEO-1: The Project shall comply with the erosion and design standards outlined in Chapter 7 of the Ukiah City Code. Prior to any ground disturbance, erosion and sediment control plans shall be submitted to the Public Works and Community Development Departments for review and approval. Said plans shall protect against soil erosion and runoff through the implementation of appropriate Best Management Practices (BMPs). Typical BMPs include the placement of straw, mulch, seeding, straw wattles, silt fencing, etc. No silt, sediment or other materials shall be allowed to flow from the project area.	Developer	Developer	Prior to any ground disturbance and throughout construction activities; ongoing as needed to control erosion		
Hazards and Haz	ardous Materials					
Project construction could result in a hazard to the public or the environment if the incidental use of petroleum hydrocarbons (fuel, oil) in tools used during construction were to lead to	HAZ-1: The developer shall establish and implement construction site management practices that will prevent toxic materials and other debris from entering the City's storm drainage and waterway systems, including: a) There shall be no storage of hazardous materials at the Project Site; b) The developer shall provide adequate materials management, including covering, securing, and segregating potentially toxic materials (grease, oils, fuel, solvents, etc.); and	Developer	Developer	During construction		

accidental leaks or spills in or around the work area	c) The developer shall maintain supplies on-hand to contain spills of oil and any other hazardous materials used on-site.				
	HAZ-2: Should portable gasoline-powered equipment be used on site, the following firesafe precautions shall be taken:				
Construction of the Project may involve the use of gasoline-powered tools and equipment potentially introducing new temporary sources of ignition that could increase fire risk.	 a) Spark arresters are required on all portable gasoline-powered equipment. b) Equipment shall be maintained in good working condition, with exhaust systems and spark arresters in proper working order and free of carbon buildup. c) Fuel the equipment in a safe place where spills can be contained and a fire extinguisher is nearby. Use the recommended gas/oil mixture and do not top off. Use a funnel or spout for pouring. Wipe off any spills. d) Do not refuel running or hot equipment. Dispense fuel at least 10 feet from sources of ignition. e) Do not use equipment in areas of dry vegetation. Keep leaves and dry materials away from a hot muffler. f) No smoking or open flame allowed near gasoline-powered equipment. 	Developer	Developer	During construction	

Hydrology and W	Hydrology and Water Quality					
Ground disturbing activities and construction of the project would result in impervious surfaces that could impact water quality	Implementation of Mitigation Measures GEO-1 and HAZ-1	Developer	Developer	Prior to and during construction ; ongoing as needed to control erosion		
Noise						
Ground disturbing activities and construction of the project would result in temporary noise impacts	 NOI-1: Prior to building permit or grading permit issuance, the developer shall comply with the following: a. Construction contracts shall specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other state-required noise attenuation devices. b. Construction haul routes shall be designed to avoid or lessen impacts to noise-sensitive uses (e.g., residences, schools, convalescent homes), to the extent feasible. c. During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers. d. Per the City's Noise Ordinance, construction shall not take place outside of the hours of 7:00 a.m. to 7:00 p.m. 	Developer	Developer	Prior to issuance of building or grading permits, and during construction		

Utilities and Service Systems					
City sewer, water and electric utilities would be extended to the area which could result in physical impacts to the environment	Implementation of BIO-1 through BIO-5 , and GEO-1 .	See BIO-1 through BIO-5 and GEO-1	See BIO-1 through BIO-5 and GEO-1	See BIO-1 through BIO-5 and GEO-1	
Wildfire					
Construction of the Project may involve the use of gasoline-powered equipment and machinery, potentially introducing new sources of ignition that could increase fire risk	Implementation of Mitigation Measure HAZ-2	Developer	Developer	During construction	

ORDINANCE NO. 1217

UNCODIFIED ORDINANCE OF THE CITY COUNCIL OF THE CITY OF UKIAH TO PREZONE CERTAIN PARCELS IN ASSOCIATION WITH THE WESTERN HILLS OPEN LAND ACQUISITION AND LIMITED DEVELOPMENT AGREEMENT PROJECT.

The City Council of the City of Ukiah hereby ordains as follows: SECTION ONE. FINDINGS

- 1. The City proposes to acquire and annex approximately 707 acres total, including the "Hull Properties" (APNs 001-040-83, 157-070-01, 157-070-02, 003-190-01, 157-050-09, 157-060-02, 157-050-02, 157-050-04, 157-050-01, 157-030-02, 157- 030- 03, 157-050-11 & 157-050-12), the "Noguera Properties" (APNs 003-190-09 & 003- 110-90) and the City-owned "Donation Parcel" (APNs 157-050-03,157-060-003) in the Western Hills for open space preservation, while allowing the potential for future low-density residential development on the approximately 54 easternmost acres ("Development Parcels"), consistent with existing development in the Western Hills within the City of Ukiah limits; and
- 2. Government Code Section 65859 allows the City to adopt a zoning district for land outside of the city limits in anticipation of annexation and development, i.e. prezone.
- 3. Government Code Section 56742 allows the City to annex parcels that are not located within the City's Sphere of Influence ("SOI"), provided that those parcels are located in the County of Mendocino, less than 300 acres, owned by the City, and used for municipal purposes at the time of the annexation application.

SECTION TWO.

The City Council of the City of Ukiah hereby ordains that:

- 1. The City will apply to annex approximately 640 acres total referred to as the "Conservation Parcels", for open space and conservation. The Conservation Parcels will be pre-zoned with a Public Facilities (PF) zoning designation, which encompasses lands within the City that contain open space and parks, as well as other public facilities. Approximately 343 acres of the Conservation Parcels are located within the City's SOI and 296 acres outside of it.
- 2. The proposed Development Parcels (totaling approximately 54 acres) will be zoned to Single-Family Residential-Hillside Overlay District (R1-H) with a General Plan Designation of Low Density Residential (LDR), consistent with adjacent City zoning and development patterns in the Western Hills. In addition, the Noguera Properties will be zoned R1-H for consistency with surrounding zoning and land uses.
- 3. A map of the affected territories is set forth in Exhibit A, and the parcel configuration, intended use, and proposed prezoning of the affected territories are set forth in Exhibit B, attached hereto and by reference incorporated herein.

SECTION THREE.

1. Publication: Within fifteen (15) days after its adoption, this Ordinance shall be published once in a newspaper of general circulation in the City of Ukiah. In lieu of publishing the full text of the Ordinance, the City may publish a summary of the Ordinance once 5 days prior to its adoption and again within fifteen (15) days after its adoption.

2. Effective Date: Section 2 and 3 of this ordinance shall become effective as of the date that the annexation of the Conservation Parcels, Development Parcels, and Noguera Properties becomes final.

Introduced by title only on September 15, 2021, by the following roll call vote:

AYES:

Councilmembers Rodin, Duenas, Brown, and Mayor Orozco

NOES:

ABSENT: Councilmember Crane

ABSTAIN: None

Adopted on October 6, 2021, by the following roll call vote:

AYES:

Councilmembers Duenas, Brown, and Mayor Orozco

NOES:

ABSENT: Councilmembers Crane and Rodin

ABSTAIN: None

ATTEST:

Kristine Lawler, City Clerk

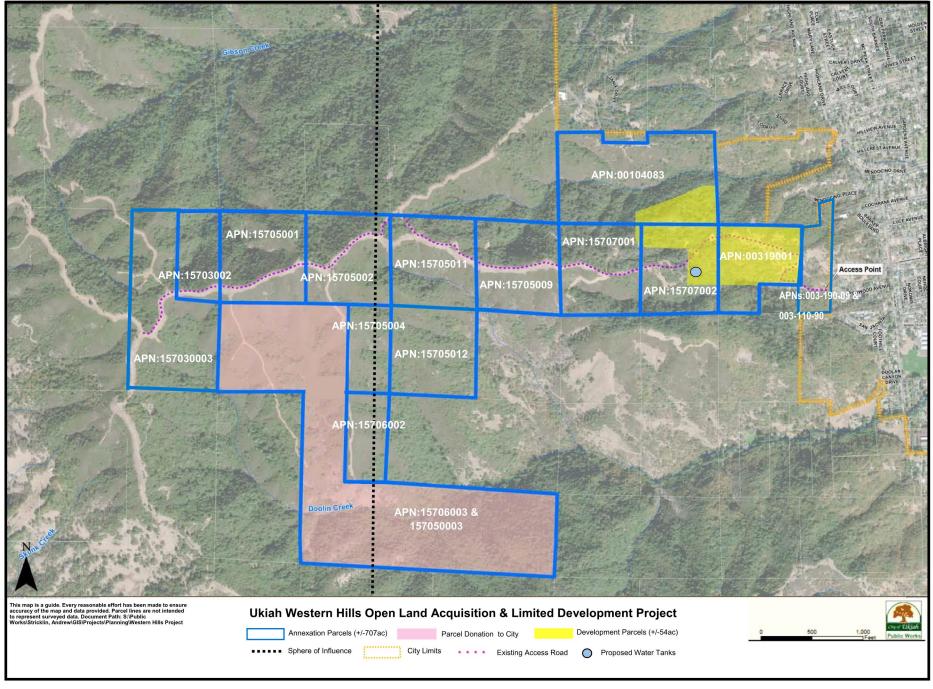


Figure 1 Location Map

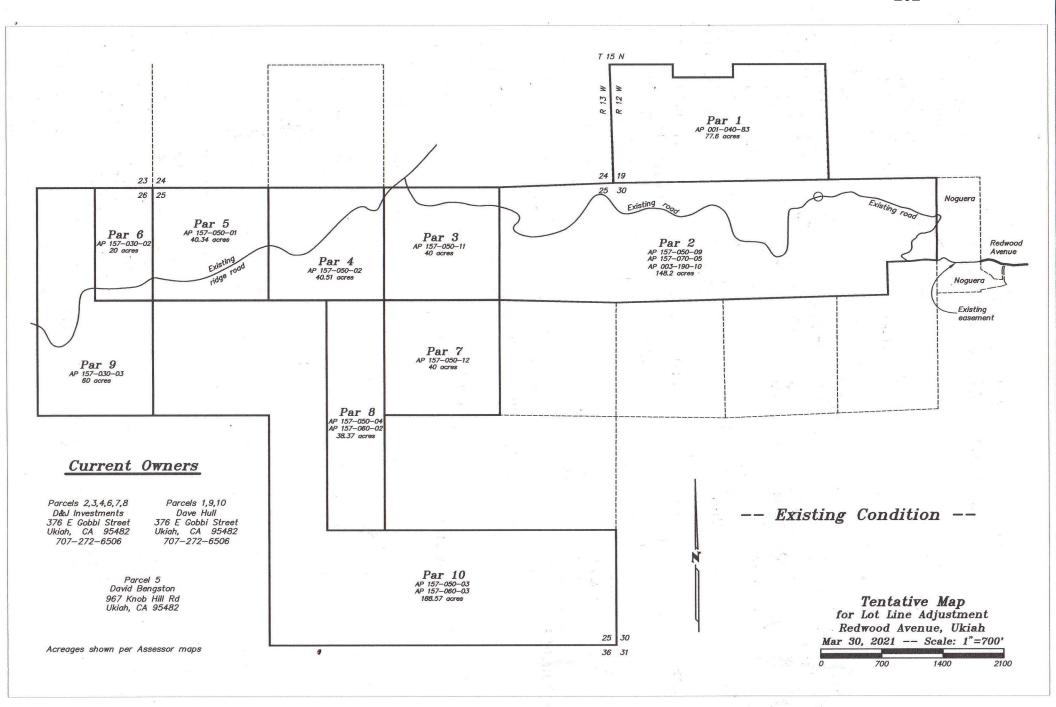


Figure 2
Existing Parcel Configuration

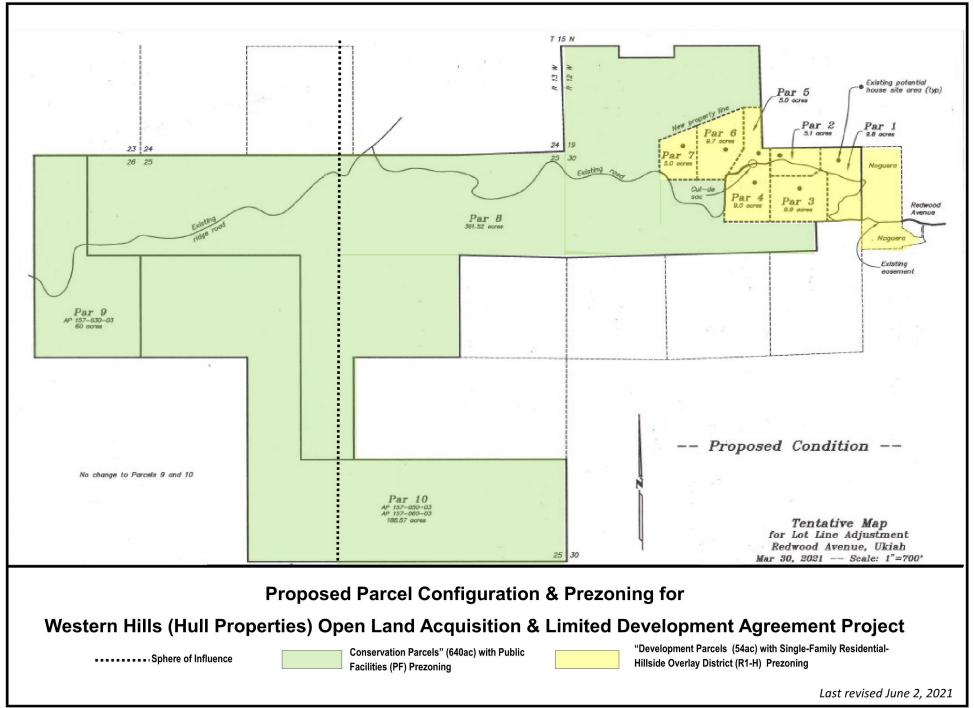


Figure 3 Proposed Parcel Configuration & Prezoning

EXHIBIT B- ANNEXATION PARCELS AND PREZONING

Assessor's Parcel Number (APN)	Existing Size (+/acres)	Proposed Size (+/-acres) through Lot Line Adjustments ¹	Resulting Parcel Configuration, Intended Use and Proposed Prezoning
001-040-83	77.6	9.8	Parcel 1 will become a Development Parcel intended for single family housing and prezoned R1-H.
157-070 01, 157-070-02, 003-190-01 & 157-050-09	148.2	5.1	Parcel 2 on Existing Conditions Tentative Map, contains several APNs but is one legal parcel (149 acres total). This parcel will become a Development Parcel intended for single-family housing and prezoned R1-H.
157-050-11	40.0	9.9	Parcel 3 will become a Development Parcel intended for single-family housing and prezoned R1-H.
157-050-02	40.5	9.0	Parcel 4 will become a Development Parcel intended for single-family housing and prezoned R1-H.
157-050-01	40.3	5.0	Parcel 5 will become a Development Parcel intended for single-family housing and prezoned R1-H.
157-030-02	20.0	9.7	Parcel 6 will become a Development Parcel intended for single-family housing and prezoned R1-H.
157-050-12	40.0	5.0	Parcel 7 will become a Development Parcel intended for single-family housing and prezoned R1-H.
157-050-04 & 157-060-02	38.7	391.5	Parcel 8 will become a Conservation Parcel and be prezoned PF. The proposed water tanks will be placed on this parcel within the existing water tank pad site (on existing Parcel 2).
157-030-03	60.0	60.0	Parcel 9 is an Conservation Parcel and will prezoned PF.
157-030-03 & 157-060-03	188.5	188.5	Parcel 10 (City-owned "Donation Parcel") will become a Conservation Parcel and will be prezoned PF.
"Noguera Properties" 003-190-09 &			These parcels contain the existing access road that will be improved but remain under private ownership. It will be included in the annexation proposal and prezoned R1-H, consistent with surrounding zoning and land uses, but no
003-110-90	10.20 4.14	10.20 4.14	consistent with surrounding zoning and land uses, but no development is proposed; this parcel is not included in the Lot Line Adjustment.
TOTAL	+/- 707 acr	es	1

¹ Resulting parcel configuration is subject to change but the Development Parcel area footprint and number of resulting parcels will remain the same.

Ukiah Western Hills Open Land Acquisition & LDA ISMND

Summary

SCH Number 2021040428

Lead Agency City of Ukiah

Document Title Ukiah Western Hills Open Land Acquisition & LDA ISMND

Document Type NOD - Notice of Determination

Received 9/27/2021

Posted 9/27/2021

Document Description 1) Acquisition and annexation of approx. 707 acres for open space and limited develop-

ment; 2) Pre-zoning of the parcels; 3) Sequential Lot Line Adjustments to reconfigure parcels into seven lots for future development; 4) Development Agreement between the City and Hull Properties restricting development to one single-family residence and one accessory dwelling unit (total of 14 units on 54ac); and 5) Site improvements (ex-

tension of utilities, road improvements, construction of water tanks).

Contact Information

Name Michelle Irace

Agency Name City of Ukiah

Contact Types Lead/Public Agency

Address 300 Seminary Ave.

Ukiah , CA 95482

Phone (707) 463-6268

Email mirace@cityofukiah.com

Location

Cities Ukiah

Counties Mendocino

Regions Citywide, Countywide, Northern California

Cross Streets Redwood Avenue

https://ceqanet.opr.ca.gov/2021040428/2

Zip 95482

Total Acres 707

Parcel # several

State Highways Highway 101

Airports Ukiah Municipal Airport

Notice of Determination

Approving Agency Ukiah City Council

Approving Agency Role Lead Agency

Approved On 9/15/2021

County Clerk Mendocino

Final Environmental

Document Available at

https://www.cityofukiah.com/ceqa-review/ or 300 Seminary Ave., Ukiah CA, 95482

Determinations

(1) The project will have a significant impact on the No environment

(2a) An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA

(2b) A Mitigated or a Negative Declaration was prepared for this project pursuant to the provisions

of CEQA

CEQA

(2c) An other document type was prepared for this

project pursuant to the provisions of CEQA

(3) Mitigated measures were made a condition of the

approval of the project

(4) A mitigation reporting or monitoring plan was

adopted for this project

adopted for this project

(5) A Statement of Overriding Considerations was

(6) Findings were made pursuant to the provisions of

Yes

No

Yes

No

Yes

Yes

No

Attachments

Notice of Determination

Western Hills ISMND NOD PDF 473 K

Disclaimer: The Governor's Office of Planning and Research (OPR) accepts no responsibility for the content or accessibility of these documents. To obtain an attachment in a different format, please contact the lead agency at the contact information listed above. You may also contact the OPR via email at state.clearinghouse@opr.ca.gov or via

CONFORMED COPY

Copy of Document Recorded on 09/22/2021 09:25:41 AM as 2021-E0080 Mendocino County Clerk-Recorder

Notice of Determination

			-
Γο:	Office of Planning and Resear	rah.	From: Public Agency: City of Ukiah
ب	U.S. Mail:	Street Address:	Address: 300 Seminary Ave.
	P.O. Box 3044	1400 Tenth St., Rm 113	Ukiah, CA, 95482
	Sacramento, CA 95812-3044		Contact: Michelle Irace, Planning Manager
_			Phone: 707-463-6268 mirace@cityofukiah.com
	County Clerk County of: Mendocino Address: 501 Low Gap Rd #	1020	Lead Agency (if different from above):
	Ukiah, CA 95482	1020	Address:
			Contact:
			Phone:
Re	sources Code.		ance with Section 21108 or 21152 of the Public
	te Clearinghouse Number (if		
Pro	oject Title: Ukiah Western Hill	s Open Land Acquisition	and Limited Development Agreement Project
Pro	pject Applicant: City of Ukiah		
Pro	eject Location (include county)	: approx. 707 acres in uni	ncorporated Mendocino County
Pro	ject Description:		
Pr fut de ar	ezoning of the parcels; 3) Sec ture development; 4) Develop evelopment to one single-famil	quential Lot Line Adjustme ment Agreement betweer ly residence and one acce nsion of utilities, road imp	en space and limited development; 2) ents to reconfigure parcels into seven lots for the City and Hull Properties restricting essory dwelling unit (total of 14 units on 54ac); rovements,construction of water tanks).
		■ Lead Agency or ☐ Re	
	scribed project on 9/15/21 (date scribed project.		e following determinations regarding the above
1.	The project [will will no	t] have a significant effect	on the environment.
2.	☐ An Environmental Impact F ■ A Negative Declaration wa	Report was prepared for the project is prepared for this project.	nis project pursuant to the provisions of CEQA. t pursuant to the provisions of CEQA. ndition of the approval of the project.
4.	A mitigation reporting or monit	toring plan [🔳 was 🔲 wa	as not] adopted for this project.
			vas not] adopted for this project.
6.	Findings [were were no	ot] made pursuant to the p	provisions of CEQA.
ne	is is to certify that the final EIF gative Declaration, is available ttps://www.cityofukiah.com/ce	e to the General Public at	
Addition	gnature (Public Agency):	Mul	Nittle: Planning Manager
	te: 9/20/21	Date Rece	ived for filing at OPR:

RESOLUTION NO. 2023-___

RESOLUTION OF APPLICATION OF THE CITY COUNCIL OF THE CITY OF UKIAH FOR THE WESTERN HILLS ANNEXATION AREA, PREZONING, AND ADOPTION OF AN ADDENDUM TO THE PREVIOSULY CERTIFIED MITIGATED NEGATIVE DECLARATION FOR THE UKIAH WESTREN HILLS OPEN LAND ACQUISITION AND LIMITED DEVELOPMENT AGREEMENT PROJECT

WHEREAS:

- On January 16, 2020, the Ukiah City Council adopted an Annexation Policy (Resolution No. 2020-06) that states that the City will pursue, apply for, and support the annexation of unincorporated areas to the City to avoid the negative consequences of continued urban sprawl and to ensure the efficient provision of municipal services to unincorporated areas without placing an undue financial burden on the City or its residents; and
- On September 15, 2021, the City Council introduced Ordinance No. 1217, approving the Ukiah Western Hills Open Land Acquisition & Limited Development Project ("2021 Western Hills Project") for acquisition, annexation and prezoning of approximately 707 acres, and the associated Initial Study and Mitigated Negative Declaration (ISMND; SCH No.2021040428) via Ordinance No. 1217; and
- 3. On March 2, 2022, the City Council approved the Limited Development Agreement and Property Exchange (COU-No.2122-201), and a Road, Access and Maintenance Agreement (COU-No. 2122-200) associated with the 2021 Western Hills Project; and
- 4. On June 8, 2022, the City of Ukiah submitted application number A-2022-02 for annexation of the 2021 Western Hills Project parcels to the Mendocino County Local Agency Formation Commission (LAFCo). The application also included several privately-owned parcels (±44 acres total; referred to as the "clean up parcels") located in between the 2021 Western Hills Project parcels and the County's jurisdictional boundary, to inform the deliberate and appropriate boundaries for the City of Ukiah. Some of these parcels also span both City and County jurisdiction and the City proposes to annex them to rectify this jurisdictional issue; and
- 5. On December 7, 2022, the City Council adopted Resolution No. 2022-78 and Resolution No. 79, adopting the City's 2040 General Plan and certifying the associated Environmental Impact Report (EIR; SCH No. 2022050556). The 2040 General Plan and EIR identify the Western Hills Annexation Area as one of the three areas the City intends to pursue for annexation. The 44 acres of privately owned parcels intended to rectify jurisdictional issues ("clean up parcels") were included in the Western Hills Annexation Area within the General Plan and EIR, bringing the total Western Hills Annexation Area to 752 acres; and
- 6. On December 19, 2022, LAFCo approved the City's Ukiah Municipal Service Review (MSR) and Sphere of Influence (SOI) Update. The updated SOI includes the entire Western Hills Annexation Area (752 acres) identified within the General Plan; and
- 7. In early 2023, an additional 40-acre parcel (APN 003-190-11) directly adjacent (south) to the Western Hills Annexation Area and City's western City limit became available for purchase;
- 8. The City of Ukiah desires to continue a proceeding for the adjustment of boundaries specified herein by seeking acquisition of the parcel for open space and access opportunities in connection with the Western Hills open space parcels.; and
- Pursuant to Government Code Section 56654(a), the City must approve a resolution of application in order to initiate annexation proceedings; and
- Pursuant to Government Code Section 65859 and Ukiah City Code Section 9267, the City may prezone unincorporated territory adjoining the City for the purpose of determining the zoning which will apply to such property in the event of subsequent annexation to the City; and;
- 11. Pursuant to Section 15164 of the CEQA Guidelines, an Addendum to an adopted MND may be prepared by a lead agency or a responsible agency if minor changes or additions are

necessary and none of the conditions described in Section 15162 of the CEQA Guidelines calling for the preparation of a subsequent EIR or subsequent MND have occurred.

NOW, THEREFORE, BE IT RESOLVED AND ORDERED that:

- 1. This proposal is made, and it is requested that proceedings be taken, pursuant to the Cortese/Knox/Hertzberg Local Government Reorganization Act of 2000, commencing with section 56000 of the California Government Code, specifically Government Code § 56654(a).
- 2. This proposal is an annexation to the City of Ukiah.
- 3. Legal descriptions of the affected territories are set forth in Exhibit A, and maps of the affected territories are set forth in Exhibit B, attached hereto and by reference incorporated herein.
- 4. The additional parcel to be annexed is a 40-acre uninhabited parcel that is contiguous to the existing Western Hills Annexation Area and City limits, resulting in a total annexation area of approximately 792 acres.
- 5. The 40-acre parcel is not located within the City's Sphere of Influence, but is included in the City's Planning Area (as identified in the 2040 General Plan). The proposal to include this parcel complies with Government Code Section 56742 in that the property is 1) less than 300 acres and located in Mendocino County where the City is situated; 2) is contiguous to the existing City limits and Western Hills Annexation Area; and 3) will be owned by the City and used for municipal purposes at the time these commission proceedings are initiated.
- 6. 25 acres of the 40-acre parcel would be owned by the City and maintained for open space and municipal purposes, while 15 acres would be transferred to the private property owner (Hull) via a Purchase Agreement between the City and Hull and would allow Hull to retain one +/- 15-acre parcel which can be subdivided into, not to exceed, three parcels upon each of which one single family residence and one accessory dweleing unit can be constructed as specified in the Purchase Agreement.
- 7. The City proposes to prezone the property(ies) Public Facilities (PF) and Single-Family Residential-Hillside Overlay (R1-H), as depicted on the prezoning map in Exhibit B.
- 8. In accordance with CEQA Guidelines Sections 15162 through 15164, an Addendum to the 2021 Western Hills Project ISMND (SCH No: 2021040428) has been prepared by the City of Ukiah Community Development Department, Planning Division.
- As discussed in the Planning Commission Staff Report and Addendum, none of the criteria noted in CEQA Guidelines 15162 have occurred, and only minor changes are necessary in order to deem the Addendum to the certified MND adequate. Specifically, there are no substantial changes proposed that require major revisions of the 2021 MND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. The Addendum incorporates mitigation identified in the 2021 MND to reduce all impacts to a less than significant level. No new impacts that were not previously discussed in the 2021 MND have been identified.
- 10. As discussed throughout the Addendum, staff reports and associated documents, the proposal and associated actions are consistent with the City's General Plan, Zoning Code, as well as the Government Code and LAFCo policies related to annexation.
- 11. The City Council approves the Western Hills Annexation Area amendment, prezoning and associated actions.
- 12. The City Council adopts the Addendum (and associated Mitigation Monitoring Reporting Program) to the 2021 Western Hills Project ISMND (SCH No: 2021040428), based on the findings described in Attachment XX and the Conditions of Approval in Attachment XX.
- 13. Once the territory is annexed by the City, it will no longer be subject to property taxes.

 Moreover, the use of the property for governmental purposes will not generate any other tax revenues, such as sales tax. As such, this reorganization will not result in any taxes that could be shared by the City and County pursuant to a tax sharing agreement.

PASSED AND ADOPTED this 6th day o	f December, 2023, by the following roll call vote:
AYES: NOES: ABSENT: ABSTAIN:	
	Josephina Dueñas, Mayor
ATTEST:	
Kristine Lawler, City Clerk	

ATTACHMENT 2

DRAFT FINDINGS TO APPROVE THE WESTERN HILLS ANNEXATION AREA AMENDMENT, PREZONING, AND TO ADOPT AN ADDENDUM TO THE INITIAL STUDY/MITIGATED NEGATIVE DECLARATION APPROVED FOR THE UKIAH WESTERN HILLS OPEN LAND ACQUISITION & LIMITED DEVELOPMENT AGREEMENT PROJECT

The Community Development Department's recommendation for approval of an amendment to the Western Hills Annexation Area (now totaling +/-792 acres), prezoning, and adoption of an Addendum to the previously approved Initial Study/Mitigated Negative Declaration (SCH No. 2021040428), is based in part on the following findings, in accordance with UCC §9267, as well as Section 65895 of the Government Code, and CEQA Guidelines Sections 15162-15164.

- On September 15, 2021, the City Council introduced Ordinance No. 1217, approving the 2021 Western Hills Project, which included acquisition and annexation of 707 acres and a Development Agreement for limited residential opportunities on 54 of the 707 acres, associated prezoning, and an ISMND via Ordinance No. 1217. The ISMND (referred to the "2021 MND" in this Staff Report) can be found online at: https://cityofukiah.com/cega-review/.
- 2. On December 7, 2022, the City Council adopted Resolution No. 2022-78 and Resolution No. 79, adopting the City's 2040 General Plan and certifying the associated Environmental Impact Report (EIR; SCH No. 2022050556). The 2040 General Plan and EIR identify the Western Hills Annexation Area as one of the three areas the City intends to pursue for annexation (see EIR Section 2.2.7). The 44 acres of privately owned parcels intended to rectify jurisdictional issues ("clean up parcels") were included in the Western Hills Annexation Area within the General Plan and EIR. The General Plan and EIR can be found online at https://ukiah2040.com/.
- 3. On June 8, 2022, the City of Ukiah submitted an application for annexation to the Mendocino County Local Agency Formation Commission (LAFCo) for annexation of the 2021 Western Hills Project parcels (707 acres), in accordance with the terms identified in the Development Agreement. In addition to the parcels identified as a part of the Western Hills Annexation Area, the application for annexation (LAFCo No. A-2022-02) included several privately-owned parcels (±44 acres total) located in between the 2021 Western Hills Project parcels and the County's jurisdictional boundary, to inform the deliberate and appropriate boundaries and growth for the City of Ukiah. Some of these parcels also span both City and County jurisdiction and the City proposes to annex them to rectify this jurisdictional issue.
- 4. An additional 40-acre parcel (APN 003-190-11) directly adjacent (south) to the Western Hills Project and City's western City limit became available for purchase in 2023, and on May 3, 2023, the City Council approved the City seeking acquisition of the parcel for open space and access opportunities in connection with the Western Hills open space parcels. The additional acreage, in combination with the other components summarized below, constitute the "Revised Project". The 40 acres were not included in the amended SOI nor the Western Hills Annexation Area identified in the General Plan and associated EIR. However, the 40 acres would be owned by the City at the time of annexation and is within the City's updated Planning Area, consistent with the intent of Government Code Section 56742. The proposed parcels for annexation would also be contiguous to existing City of Ukiah city limits and the existing Western Hills Annexation Area, and result in a more orderly, contiguous and less peninsular

Findings
Western Hills Annexation Area Amendment

- annexation area than the current configuration, in accordance with LAFCo policies and the Government Code Section 65895.
- 5. In accordance with LAFCo-adopted procedures, and as required under the Development Agreement (2021) and Purchase Agreement (2023) associated with the Western Hills Project (as revised), the City will amend its annexation application (LAFCo No. A-2022-02) that was submitted on June 8, 2022.
- 6. The Revised Project (2023) includes: Amending the Western Hills Annexation Area to include one 40-acre parcel (APN 003-190-11), resulting in a total acreage of 792 acres; 25 acres of the property would be owned by the City and maintained for open space and municipal purposes and 15 acres would be transferred to the private property owner (Hull) via a Purchase Agreement between the City and Hull for limited residential development potential.
- 7. As further described in the Staff Report and Draft Addendum, the Revised Project would be consistent with the City's General Plan, Zoning Code, the County's Ukiah Valley Area Plan, as well as the Government Code and LAFCo policies related to annexation and prezoning. The 2021 Western Hills Project was determined to be consistent with the General Plan (1995) and zoning code at the time of approval. Further, as described in the Staff Report, annexation of this area was built into the City's new (2040) General Plan. The proposed 40-acre parcel being included in the Western Hills Annexation Area would result in a more orderly, contiguous and less peninsular annexation area than the current configuration, which is supported by LAFCo policies.
- 8. The Revised Project is also consistent with General Plan (2040) Goals ENV-1, ENV-4, LU-6, LU-7, LU-8 and LU-9 (and Polices ENV 1.2, LU 6.1, 6.2, 6.3, 7.1, 7.2 and 8.1) which support annexation and orderly development of lands contiguous to the City limits, as well as open space preservation, protection of hillsides and development of all housing types.
- 9. In accordance with UCC Section §9267, Prezoning, the City may prezone unincorporated territory adjoining the City for the purpose of determining the zoning which will apply to such property in the event of subsequent annexation to the City. Prezoning does not become effective until after successful approval of the annexation application by LAFCo.
- 10. The agreements (2021 Development Agreement and 2023 Purchase Agreement) would allow low density residential development on approximately 69 acres of the 792 acres included in the Western Hills Annexation Area. However, the agreements would restrict development to one single family dwelling per parcel and one ADU (except for in cases were the slope exceeds 50 percent, per the City's Hillside Overlay Ordinance). No development is proposed at this time and this approval does not grant any entitlements. All development would occur in accordance with R1-H zoning, which requires discretionary review (Planning Commission approval) and would be subject to all development regulations (including slope, density, setbacks, height, fire safety and water requirements, access requirements, etc.) contained within the Hillside (-H) Overlay District.
- 11. Pursuant to Section 15164 of the CEQA Guidelines, an Addendum to the 2021 Western Hills Project ISMND (SCH No: 2021040428) has been prepared by the City of Ukiah Planning Division. Consistent with CEQA Guidelines 15164, none of the conditions described in Section 15162 have occurred and only minor changes are necessary in order to deem the certified MND adequate to describe the impacts of the project. Specifically, the revisions to the analysis from the Revised Project would not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects evaluated in the 2021 MND. The Revised Project is proposing to include additional properties immediately

Findings
Western Hills Annexation Area Amendment

adjacent to the original project within the Western Hills Annexation Area, resulting in the potential for six additional residential units, compared to the 14 potential units analyzed within the Western Hills 2021 MND. As discussed throughout the Addendum, impacts from the Revised Project are equal to, or less than, those described for the original project. The Revised Project would incorporate mitigation measures from the 2021 MND to reduce impacts to Air Quality, Biological Resources, Cultural/Tribal Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Noise, and Wildfire. Consistent with the 2021 MND, all impacts, including cumulative impacts, associated with the Revised Project would be less than significant with mitigation incorporated. No new impacts that were not previously discussed in the 2021 MND have been identified. There are no substantial changes proposed that require major revisions of the 2021 MND due to the involvement of new substantial information, identified significant environmental effects, or a substantial increase in the severity of previously identified significant effects. As such, preparation of an Addendum is appropriate.

- 12. CEQA Guidelines Section 15164 states that an Addendum need not be circulated for public review but can be included in or attached to the certified MND for consideration by the hearing body.
- 13. Public notice was provided in the following manner, consistent with Ukiah City Code (UCC) §9267 and California Environmental Quality Act (CEQA) Guidelines Section 15164:
 - Provided to property owners within 300 feet of the project parcels on October 26, 3023;
 - Published in the Ukiah Daily Journal on October 28, 2023;
 - Posted on the Project site on October 26, 2023; and
 - Posted at the Civic Center (glass case) 72 hours prior to the public hearing.

ATTACHMENT 3

DRAFT CONDITIONS OF APPROVAL FOR THE WESTERN HILLS ANNEXATION AREA AMENDMENT, PREZONING, AND TO ADOPT AN ADDENDUM TO THE INITIAL STUDY/MITIGATED NEGATIVE DECLARATION APPROVED FOR THE UKIAH WESTERN HILLS OPEN LAND ACQUISITION & LIMITED DEVELOPMENT AGREEMENT PROJECT

The following Conditions of Approval shall be made a permanent part of the approvals associated with the Western Hills Annexation Area (now totaling 792 acres), associated with the Ukiah Western Hills Open Land Acquisition & Limited development Project. All original Conditions of Approval remain in effect, as applicable.

City of Ukiah Special Conditions

- In accordance with LAFCo-adopted procedures, and as required under the Development Agreement, the City will submit a revised annexation application to the Mendocino County Local Agency Formation (LAFCo), after it acquires title to the Annexation Parcels, and upon City Council approval of the project.
- 2. An application for annexation and prezoning shall be approved by the Mendocino County Local Agency Formation Commission (LAFCo) prior to the prezoning becoming effective. Prezoning will also require a General Plan Map Amendment and Zoning Map Amendment, upon approval of the annexation application.
- 3. Upon approval of the annexation application, a copy of the final Lot Line Adjustment shall be provided to the City Engineer for final review before recordation. The final map shall conform to the Subdivision Map Act and Division 9, Chapter 1 of the Ukiah Municipal Code, as applicable. This includes, but is not limited to, providing a slope map and calculations consistent with R1-H lot size requirements. A copy of the recorded Lot Line Adjustment shall be submitted to the Community Development Department prior to submittal of a Use Permit for single family housing within the Development Parcels located within the City's jurisdiction.
- 4. In accordance with the terms described in the Development Agreement (2021), Hull shall have the option to withdraw the Hull Development Parcels from the City's annexation application, if LAFCo has failed to approve the annexation within one (1) year from the date the Executive Officer of LAFCo accepts the application as complete.
- All mitigation measures within the 2021 Initial Study and Mitigated Negative Declaration prepared for the Project and the 2023 Addendum (SCH No. 2021040428) shall be applied to all future development described therein. The Mitigation Monitoring and Reporting Program is included in Attachment A.
- 6. This approval does not grant any entitlements. Future residential development of the Development Parcels shall be in accordance with the Hillside Overlay Zoning District regulations contained within UCC Sections 9135-9139. All future development shall require discretionary review and may require additional environmental review. Additional project-specific Conditions of Approval and CEQA analysis may be required upon review by City departments and applicable agencies.
- 7. Future development of the City-owned parcels shall comply with PF zoning regulations and may require additional dictionary review and analysis under CEQA.
- 8. All future development shall be in accordance with the terms described within the Development Agreement (2021) and Purchase Agreement (2023) between the City and the private property owner (Hull; D & J Investments), and all easements shall be maintained.

City of Ukiah Standard Conditions

- 9. City Council approval is not effective until the 10-day appeal period applicable to the project has expired without the filing of a timely appeal. If a timely appeal is filed, the project is subject to the outcome of the appeal and shall be revised as necessary to comply with any modifications, conditions, or requirements that were imposed as part of the appeal.
- 10. All use, construction and the location thereof, or occupancy, shall conform to the application and to any supporting documents submitted therewith, including any maps, sketches, or plot plans accompanying the application or submitted by applicant in support thereof.
- 11. Any construction shall comply with the "Standard Specifications" for such type of construction now existing or which may hereafter be promulgated by the Engineering Department of the City of Ukiah; except where higher standards are imposed by law, rule, or regulation or by action of the Planning Commission such standards shall be met.
- 12. The Applicant shall submit verification of all applicable permits or approvals in compliance with all local, state and federal laws to the Community Development Department prior to issuance of building permits.

Department of Public Works

- 13. Future residential development and site improvements shall be reviewed by the Department of Public Works to identify site-specific requirements.
- 14. Construction projects that would disturb more than one acre of land, would be subject to the requirements of General Construction Activity Stormwater Permit (Construction General Permit Order 2009-0009-DWQ, also known as the CGP), which requires operators of such construction sites to implement stormwater controls and develop a Stormwater Pollution Prevention Plan (SWPPP) identifying specific BMPs to be implemented to reduce the amount of sediment and other pollutants associated with construction sites from being discharged in stormwater runoff.
- 15. Applicable City water and sewer connection fees shall be paid at the time of building permit issuance.
- 16. All work within the public right-of-way shall be performed by a licensed and properly insured contractor. The contractor shall obtain an encroachment permit for work within this area or otherwise affecting this area. Encroachment permit fee shall be \$45 plus 3% of estimated construction costs.

Electric Utility Department

- 17. Utility easements shall be maintained and any modifications shall be submitted to the COUEUD for approval.
- 18. Upon individual parcel development, additional easements may be required to provide electric service.
- 19. Future site improvements shall be submitted to the Electric Utility Department for review and comment. Construction requirements and associated developer costs will be determined to provide electric service.
- 20. Developer shall incur all costs of project, to include labor, materials, and equipment.

Building Division

- 21. All development is required to submit plans and building permit application. Please submit four complete plan sets, two wet stamped and signed. All Conditions of Approval shall be printed on the first page of the Building Plans.
- 22. The design and construction of all site alterations shall comply with the current California Building Code, Plumbing Code, Electrical Code, California Mechanical Code, California Fire Code, California Energy Code, Title 24 California Energy Efficiency Standards, California Green Building Standards Code and City of Ukiah Ordinances and Amendments.

Ukiah Valley Fire Authority

23. All access improvements, roadways and residential development shall be reviewed by the Fire Marshall and adhere to all current local, state and federal fire regulations relating to access and safety, including but not limited to: California Building Code, Chapter 7A (Materials and Construction Methods for Exterior Wildfire Exposure, including Wildland Urban Interface regulations); California Residential Code, Section R337 (Materials and Construction Methods for Exterior Wildlife Exposure); California Referenced Standards Code, Chapter 12-7A (Fire Resistive Standards); California Code of Regulations, Title 14, Division 1.5, Chapter 7, Subchapter 3 (Fire Hazard Reduction Around Buildings and Structures); and California Government Code, Section 51182 (Very High Fire Hazard Severity Zones).

In addition, Public Resources Code Sections 4290 and 4291 contain additional requirements for lands within Very High Fire Severity Zones. These include the following in order to provide defensible space and fire protection for new construction and ensure adequate emergency access: increased property line setbacks for all applicable construction; on-site water storage for fire protection, driveway/roadway types and specifications based on designated usage; all weather driveway/roadway surfaces being engineered for 75,000lb vehicles; maximum slope of 16%; turnout requirements; gate requirements and setbacks, parking standards, fuels reduction regulations, etc.

ATTACHMENT A

UKIAH WESTERN HILLS OPEN LAND & LIMITED DEVELOPMENT AGREEMENT PROJECT MITIGATION MONITORING REPORTING PROGRAM

Potential Impact	Mitigation Measure	Implementation Responsibility	Monitoring & Reporting Responsibility	Timing	Date Implemented
Construction and ground disturbing activities could result in short-term impacts to air quality.	 AQ-1: Diesel Engines – Stationary and Portable Equipment and Mobile Vehicles: Any stationary onsite diesel IC engines 50 horsepower or greater (i.e. large power generators or pumps) or any propane or natural gas engines 250 horsepower or greater may require a permit from the District. Portable diesel powered equipment that may be used during the proposed project are required to be registered with the state Portable Equipment Registration Program (PERP) or obtain permits from the District. Projects located adjacent to sensitive receptors (schools, child care facilities, health care facilities, senior facilities, businesses, and residences, etc.) during the construction phase of this project have the potential for exposure to diesel particulate. Heavy duty truck idling and off-road diesel equipment or other diesel engine idling is limited to less than 5 minutes. 	Developer	Developer	During construction and ground disturbing activities	
	 AQ-2: Grading Projects- During Construction-All grading activities must comply with the following fugitive dust mitigation measures in accordance with District Regulation 1, Rule 1-430: 1. All visibly dry disturbed soil road surfaces shall be watered to minimize fugitive dust emissions. 2. All unpaved surfaces, unless otherwise treated with suitable chemicals or oils, shall have a posted speed limit of 10 mph. 	Developer	Developer	During construction and ground disturbing activities	

by by be 4. As ap su 5. Al su 6. Th to th 7. Th co 8. Fo ro As th 1. 2.	arth or other material that has been transported at trucking or earth moving equipment, erosion at water, or other means onto paved streets shall be promptly removed. Sphalt, oil, water, or suitable chemicals shall be oplied on materials stockpiles, and other urfaces that can give rise airborne dusts. Il earthmoving activities shall cease when ustained winds exceed 15 mph. The operator shall take reasonable precautions prevent the entry of unauthorized vehicles onto esite during non-work hours. The operator shall keep a daily log of activities to ontrol fugitive dust. The operator shall keep a daily log of activities to ontrol fugitive dust. The operator shall keep a daily log of activities to ontrol fugitive dust. The operator shall keep a daily log of activities to ontrol fugitive dust. The operator shall keep a daily log of activities to ontrol fugitive dust. The operator shall keep a daily log of activities to ontrol fugitive dust. The operator shall keep a daily log of activities to ontrol fugitive dust. The operator shall keep a daily log of activities to ontrol fugitive dust. The operator shall keep a daily log of activities to ontrol fugitive dust. The operator shall keep a daily log of activities to ontrol fugitive dust. The operator shall keep a daily log of activities to ontrol fugitive dust. The operator shall keep a daily log of activities to ontrol fugitive dust. The operator shall keep a daily log of activities to ontrol fugitive dust. The operator shall keep a daily log of activities to ontol exit in the operator shall keep a daily log of activities ontol exit in the project is in compliance with state and Local regulations relating to Naturally Occurring Asbestos. If the project is located within a Naturally Occurring Asbestos. If the project is located within a Naturally Occurring Asbestos and divisors and di				
4.					
constr a. Ol Di b. Ol c. Co	Property Development-Prior to starting any ruction, the applicant is required to: btain a Property Development Permit from the istrict for any open outdoor burning. btain a Grading Permit, if applicable. onfirm whether the project is in a Naturally ccurring Asbestos Area, and follow additional CAQMD recommendations, if applicable.	Developer	Developer	Prior to construction	

	 d. Consider alternate means of disposal other than open burning, such as cutting the majority of the larger material up as firewood, and chipping smaller material, if feasible to mitigate impacts from open outdoor burning. e. Obtain written verification from the MCAQMD stating that the project is in compliance with State and Local regulations. 				
Biological Resource	ces				
Construction and ground disturbing activities could result in impacts to sensitive plant species and sensitive woodland tree habitat	BIO-1: Sensitive Trees. If trees are proposed for removal, preconstruction surveys shall be conducted by a qualified biologist to identify Oregon white oak forest and woodland, as well as California bay forest and woodland habitat; removal of sensitive habitat shall be conducted in accordance with California Department of Fish and Wildlife (CDFW) regulations.	Qualified Biologist	Developer	Prior to ground disturbing activities	
Construction and ground disturbing activities could impact Red-belly newt, and other special status amphibians and their habitat	BIO-2: Sensitive Amphibian Species. A qualified biologist shall survey the area prior to any groundbreaking activities to determine the presence of Red-belly newt, or other sensitive amphibian species, and identify additional avoidance measures, if needed. A qualified biologist shall be on-site for any dewatering event to address the potential for the presence of sensitive amphibian species such as foothill yellow-legged frog (Rana boylii).	Qualified Biologist	Developer	Prior to ground disturbing activities	
Construction, vegetation removal, and ground disturbing activities could impact nesting birds and their habitat	BIO-3: Nesting Birds. Pre-construction surveys shall be conducted prior to any vegetation removal or ground disturbing activities occurring between March 1 and August 31 of any year. All active bird nests shall not be removed, relocated, or otherwise disturbed for any purpose until all fledglings have left the nest.	Qualified Biologist	Developer	Prior to vegetation removal or ground disturbing activities between	

				March 1 and August 31
Construction and ground disturbing activities could impact special-status insects and their habitat	BIO-4: Special-Status Insects. A qualified biologist shall survey the area prior to any groundbreaking activities to determine the presence of special-status insect species and identify additional avoidance measures if needed. If a special-status insect nests are observed, active nests shall not be removed, relocated, or otherwise disturbed until the nest becomes inactive.	Qualified Biologist	Developer	Prior to ground disturbing activities
Construction and ground disturbing activities could impact special-status mammals and their habitat	BIO-5: Special-Status Mammals. Pre-construction surveys shall be conducted prior to any vegetation removal or ground disturbing activities. If evidence of bat roosts is observed (i.e. bat guano, ammonia odor, grease stained cavities) around trees or structures, pre-construction bat surveys shall be conducted by a qualified biologist for activities that may affect bat roosting habitat and den sites.	Qualified Biologist	Developer	Prior to ground disturbing activities
Cultural Resources	s and Tribal Cultural Resources			
Ground disturbing activities have the potential for accidental discovery of unknown, undiscovered cultural resources and tribal cultural resources	cult-1: Unanticipated Discovery. If previously unidentified cultural, historic, palentologic or archeologic resources are encountered during project implementation, altering the materials and their stratigraphic context shall be avoided and work shall halt immediately. A qualified professional archaeologist shall be contacted to evaluate the resource and methods necessary to protect it. Project personnel shall not collect, move, or disturb cultural resources. Prehistoric resources include, but are not limited to, chert or obsidian flakes, projectile points, mortars, pestles, and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic resources include stone or abode foundations or walls; structures and remains with	Qualified archaeologist	Developer	During ground disturbing activities

	square nails; and refuse deposits or bottle dumps, often located in old wells or privies.			
Ground disturbing activities have the potential for accidental discovery of unknown Native American remains	CUL-2: Encountering Native American Remains. If human remains are encountered during ground disturbing activities, all work shall stop in the immediate vicinity of the discovered remains and the County Coroner and a qualified archaeologist shall be notified immediately so that an evaluation can be performed. If the remains are deemed to be Native American and prehistoric, the Native American Heritage Commission must be contacted by the Coroner so that a "Most Likely Descendant" can be designated and further recommendations regarding treatment of the remains will be provided.	Qualified archaeologist	Developer	During ground disturbing activities
Geology and Soils				
Ground disturbing	Incorporation of Mitigation Measure CUL-1	Qualified archaeologist	Developer	During ground disturbing activities
activities could result in impacts associated with erosion, the loss of topsoil and landslides if not properly designed	GEO-1: The Project shall comply with the erosion and design standards outlined in Chapter 7 of the Ukiah City Code. Prior to any ground disturbance, erosion and sediment control plans shall be submitted to the Public Works and Community Development Departments for review and approval. Said plans shall protect against soil erosion and runoff through the implementation of appropriate Best Management Practices (BMPs). Typical BMPs include the placement of straw, mulch, seeding, straw wattles, silt	Developer	Developer	Prior to any ground disturbance and throughout construction activities; ongoing as needed to control erosion

	fencing, etc. No silt, sediment or other materials shall be allowed to flow from the project area.				
Hazards and Haza	rdous Materials				
Project construction could result in a hazard to the public or the environment if the incidental use of petroleum hydrocarbons (fuel, oil) in tools used during construction were to lead to accidental leaks or spills in or around the work area	 HAZ-1: The developer shall establish and implement construction site management practices that will prevent toxic materials and other debris from entering the City's storm drainage and waterway systems, including: a) There shall be no storage of hazardous materials at the Project Site; b) The developer shall provide adequate materials management, including covering, securing, and segregating potentially toxic materials (grease, oils, fuel, solvents, etc.); and c) The developer shall maintain supplies on-hand to contain spills of oil and any other hazardous materials used on-site. 	Developer	Developer	During construction	
Construction of the Project may involve the use of gasoline-powered tools and equipment potentially introducing new temporary sources of ignition that could increase fire risk.	 HAZ-2: Should portable gasoline-powered equipment be used on site, the following firesafe precautions shall be taken: a) Spark arresters are required on all portable gasoline-powered equipment. b) Equipment shall be maintained in good working condition, with exhaust systems and spark arresters in proper working order and free of carbon buildup. c) Fuel the equipment in a safe place where spills can be contained and a fire extinguisher is nearby. Use the recommended gas/oil mixture and do not top off. Use a funnel or spout for pouring. Wipe off any spills. d) Do not refuel running or hot equipment. Dispense fuel at least 10 feet from sources of ignition. 	Developer	Developer	During construction	

	 e) Do not use equipment in areas of dry vegetation. Keep leaves and dry materials away from a hot muffler. f) No smoking or open flame allowed near gasoline- powered equipment. 				
Hydrology and Wa	ter Quality				
Ground disturbing activities and construction of the project would result in impervious surfaces that could impact water quality	Implementation of Mitigation Measures GEO-1 and HAZ-1	Developer	Developer	Prior to and during construction; ongoing as needed to control erosion	
Noise					
Ground disturbing activities and construction of the project would result in temporary noise impacts	NOI-1: Prior to building permit or grading permit issuance, the developer shall comply with the following: a. Construction contracts shall specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other state-required noise attenuation devices. b. Construction haul routes shall be designed to avoid or lessen impacts to noise-sensitive uses (e.g., residences, schools, convalescent homes), to the extent feasible. c. During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers. d. Per the City's Noise Ordinance, construction shall not take place outside of the hours of 7:00 a.m. to 7:00 p.m.	Developer	Developer	Prior to issuance of building or grading permits, and during construction	
Utilities and Service	e Systems				

City sewer, water and electric utilities would be extended to the area which could result in physical impacts to the environment	Implementation of BIO-1 through BIO-5 , and GEO-1 .	See BIO-1 through BIO-5 and GEO-1	See BIO-1 through BIO-5 and GEO-1	See BIO-1 through BIO-5 and GEO-1	
Wildfire					
Construction of the Project may involve the use of gasoline-powered equipment and machinery, potentially introducing new sources of ignition that could increase fire risk	Implementation of Mitigation Measure HAZ-2	Developer	Developer	During construction	

AMENDED RESOLUTION NO. 2023-42

AMENDED RESOLUTION OF APPLICATION OF THE CITY COUNCIL OF THE CITY OF UKIAH FOR THE WESTERN HILLS ANNEXATION AREA, PREZONING, AND ADOPTION OF AN ADDENDUM TO THE PREVIOUSLY CERTIFIED MITIGATED NEGATIVE DECLARATION FOR THE UKIAH WESTERN HILLS OPEN LAND ACQUISITION AND LIMITED DEVELOPMENT AGREEMENT PROJECT

WHEREAS:

- 1. On January 16, 2020, the Ukiah City Council adopted an Annexation Policy (Resolution No. 2020-06) that states that the City will pursue, apply for, and support the annexation of unincorporated areas to the City to avoid the negative consequences of continued urban sprawl and to ensure the efficient provision of municipal services to unincorporated areas without placing an undue financial burden on the City or its residents; and
- On September 15, 2021, the City Council introduced Ordinance No. 1217, approving the Ukiah Western Hills Open Land Acquisition & Limited Development Project ("2021 Western Hills Project") for acquisition, annexation and prezoning of approximately 707 acres, and the associated Initial Study and Mitigated Negative Declaration (ISMND; SCH No.2021040428) via Ordinance No. 1217; and
- 3. On March 2, 2022, the City Council approved the Limited Development Agreement and Property Exchange (COU-No.2122-201), and a Road, Access and Maintenance Agreement (COU-No. 2122-200) associated with the 2021 Western Hills Project; and
- 4. On June 8, 2022, the City of Ukiah submitted application number A-2022-02 for annexation of the 2021 Western Hills Project parcels to the Mendocino County Local Agency Formation Commission (LAFCo). The application also included several privately-owned parcels (±44 acres total; referred to as the "clean up parcels") located in between the 2021 Western Hills Project parcels and the County's jurisdictional boundary, to inform the deliberate and appropriate boundaries for the City of Ukiah. Some of these parcels also span both City and County jurisdiction and the City proposes to annex them to rectify this jurisdictional issue; and
- 5. On December 7, 2022, the City Council adopted Resolution No. 2022-78 and Resolution No. 79, adopting the City's 2040 General Plan and certifying the associated Environmental Impact Report (EIR; SCH No. 2022050556). The 2040 General Plan and EIR identify the Western Hills Annexation Area as one of the three areas the City intends to pursue for annexation. The 44 acres of privately owned parcels intended to rectify jurisdictional issues ("clean up parcels") were included in the Western Hills Annexation Area within the General Plan and EIR, bringing the total Western Hills Annexation Area to 752 acres; and
- On December 19, 2022, LAFCo approved the City's Ukiah Municipal Service Review (MSR) and Sphere of Influence (SOI) Update. The updated SOI includes the entire Western Hills Annexation Area (752 acres) identified within the General Plan; and
- 7. In early 2023, an additional 40-acre parcel (APN 003-190-11) directly adjacent (south) to the Western Hills Annexation Area and City's western City limit became available for purchase;
- 8. The City of Ukiah desires to continue a proceeding for the adjustment of boundaries specified herein by seeking acquisition of the parcel for open space and access opportunities in connection with the Western Hills open space parcels.; and
- 9. Pursuant to Government Code Section 56654(a), the City must approve a resolution of application in order to initiate annexation proceedings; and
- 10. Pursuant to Government Code Section 65859 and Ukiah City Code Section 9267, the City may prezone unincorporated territory adjoining the City for the purpose of determining the

- zoning which will apply to such property in the event of subsequent annexation to the City; and:
- 11. Pursuant to Section 15164 of the CEQA Guidelines, an Addendum to an adopted MND may be prepared by a lead agency or a responsible agency if minor changes or additions are necessary and none of the conditions described in Section 15162 of the CEQA Guidelines calling for the preparation of a subsequent EIR or subsequent MND have occurred.
- 12. Exhibits A and B to Resolution 2023-42 were inadvertently omitted when the resolution was originally adopted on December 6, 2023. This amended ordinance is adopted to include Exhibits A and B as attachments to the resolution.

NOW, THEREFORE, BE IT RESOLVED AND ORDERED that:

- 1. This proposal is made, and it is requested that proceedings be taken, pursuant to the Cortese/Knox/Hertzberg Local Government Reorganization Act of 2000, commencing with section 56000 of the California Government Code, specifically Government Code § 56654(a).
- 2. This proposal is an annexation to the City of Ukiah.
- 3. Legal descriptions of the affected territories are set forth in Exhibit A, and maps of the affected territories are set forth in Exhibit B, attached hereto and by reference incorporated herein.
- 4. The additional parcel to be annexed is a 40-acre uninhabited parcel that is contiguous to the existing Western Hills Annexation Area and City limits, resulting in a total annexation area of approximately 792 acres.
- 5. The 40-acre parcel is not located within the City's Sphere of Influence, but is included in the City's Planning Area (as identified in the 2040 General Plan). The proposal to include this parcel complies with Government Code Section 56742 in that the property is 1) less than 300 acres and located in Mendocino County where the City is situated; 2) is contiguous to the existing City limits and Western Hills Annexation Area; and 3) will be owned by the City and used for municipal purposes at the time these commission proceedings are initiated.
- 6. 25 acres of the 40-acre parcel would be owned by the City and maintained for open space and municipal purposes, while 15 acres would be transferred to the private property owner (Hull) via a Purchase Agreement between the City and Hull would allow Hull to retain one +/-15-acre parcel after annexation for limited residential development, as specified in the Purchase Agreement.
- 7. The City proposes to prezone the property(ies) Public Facilities (PF) and Single-Family Residential-Hillside Overlay (R1-H), as depicted on the prezoning map in Exhibit B.
- 8. In accordance with CEQA Guidelines Sections 15162 through 15164, an Addendum to the 2021 Western Hills Project ISMND (SCH No: 2021040428) has been prepared by the City of Ukiah Community Development Department, Planning Division.
- 9. As discussed in the Planning Commission Staff Report and Addendum, none of the criteria noted in CEQA Guidelines 15162 have occurred, and only minor changes are necessary in order to deem the Addendum to the certified MND adequate. Specifically, there are no substantial changes proposed that require major revisions of the 2021 MND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects. The Addendum incorporates mitigation identified in the 2021 MND to reduce all impacts to a less than significant level. No new impacts that were not previously discussed in the 2021 MND have been identified.

- 10. As discussed throughout the Addendum, staff reports and associated documents, the proposal and associated actions are consistent with the City's General Plan, Zoning Code, as well as the Government Code and LAFCo policies related to annexation.
- 11. The City Council approves the Western Hills Annexation Area amendment, prezoning and associated actions.
- 12. The City Council adopts the Addendum (and associated Mitigation Monitoring Reporting Program) to the 2021 Western Hills Project ISMND (SCH No: 2021040428), based on the findings described in Attachment 2 and the Conditions of Approval in Attachment 3.
- 13. Once the territory is annexed by the City, it will no longer be subject to property taxes. Moreover, the use of the property for governmental purposes will not generate any other tax revenues, such as sales tax. As such, this reorganization will not result in any taxes that could be shared by the City and County pursuant to a tax sharing agreement.

PASSED AND ADOPTED this 7th day of February, 2024, by the following roll call vote:

AYES:

Councilmember Rodin, Orozco, Sher, Crane, and Mayor Duenas

NOES:

ABSENT: None

ABSTAIN: None

phiha Dueñas, Mavor

ATTEST:

Kristine Lawler, City Clerk

EXHIBIT "A" LEGAL DESCRIPTION CITY OF UKIAH - WESTERN HILLS ANNEXATION

(LAFCo FILE No. A-2022-02)

All that real property situated in the unincorporated area of Mendocino County, State of California, being portions of Sections 19 and 30 of Township 15 North, Range 12 West and Sections 25 and 26 of Township 15 North, Range 13 West, Mount Diablo Base and Meridian and as shown on that certain map entitled "YOKAYO RANCHO" redrawn (August 1971) from the Original Map made in 1886-1870 by Charles T. Healy and as shown on the General Land Office Survey, Map of Rancho Yokayo, Mendocino County Records (M.C.R), more particularly described as follows:

COMMENCING at a United States National Geodetic Survey Station, being a 3-1/4" "CA DOT 101 MEN aluminum disc marked 1 25.13"; thence South 45°45'43" West 9,627.99 feet to a point on the North line of Area No. 5 as described in that certain document entitled "Ukiah Valley Sanitation District Detachment" recorded as Document No. XXXX-O.R.-XXXXX M.C.R., hereinafter referred to as USVDD, said point also being the Southeast corner of Lot 3 of said Section 19, and being an angle point on the City Limit Line of Ukiah, said City Limit Line is coincident with said Rancho Yokayo Boundary line, both lines hereinafter referred to simultaneously as City Limits, said point also being the POINT OF BEGINNING; thence from said Point of Beginning along said City Limits and the North line of the South One-Half of the Southeast One-Quarter of said Section 19,

- 1. North 88°45'40" East 1279.45 feet to the Northeast corner of Lot 4, Section 19;
- 2. thence continuing along said City Limit and the East line of said Lot 4, South 01°48'09" East 85.31 feet; thence leaving said City Limits for the following six (6) courses and distances:
- 3. (1) South 81°29'51" East 41.72 feet;
- 4. (2) thence South 18°48'59" East 24.27 feet;
- 5. (3) thence South 59°59'42" East 56.14 feet;
- 6. (4) thence South 02°53'13" West 88.65 feet;

- 7. (5) thence South 43°23'14" West 48.37 feet;
- 8. (6) thence South 69°00'38" West 57.49 feet to said City Limits line
- 9. Thence along said City Limits South 01°48'09" East 235.19 feet to the northeast corner of U.V.S.D.D. Area No. 6:
- 10. thence leaving said City Limit line along the North, West and South lines of said Area No. 6 for the following Six (6) courses and distances:
 - (1) South 71°54'01" West 290.99 feet along the North line of said Area No. 6;
- 11.(2) thence continuing along said North line of Area No. 6 South 70°00'17" West 702.14 feet to the Northwest corner of said Area No. 6;
- 12.(3) thence South 00°16'47" East 553.01 feet to the South line of said Section 19 and the Southwest corner of said Area No. 6;
- 13. (4) thence along said South line of said Section 19

 North 88°58'48" East 765.20 feet to a point on the East line of the lands of "Robert and Marleen Werra Family Trust Dated March 8, 1995" as said lands are described in that Grant Deed recorded on June 9, 1995 in Book 2257 at Page 516, M.C.R.;
- 14.(5) thence leaving said South Section line, along said East line, North 00°06'17" West 298.15 feet;
- 15.(6) thence North 76°10'00" East 191.28 feet to the most Southeast corner of said Area No. 6 and said City Limits; thence along said City Limits for the following three (3) courses and distances:
- 16.(1) South 00°30'42" East 346.50 feet to the Northeast corner of Lot 1, Section 30;
- 17.(2) thence along the East line of said Lot 1 South 00°31'39" West 730.11 feet;
- 18.(3) thence continuing along said East line of lot 1, South 00°15'47" West 621.60 feet to the Southeast corner of said Lot 1 and the northeast corner of Lot 2;
- 19. thence leaving said City Limits, along the South line of said Lot 1 and the North line of said Lot 2 of Section 30 North 89°38'45" West 515.18 feet to the Northwest corner of said Lot 2;
- 20. thence along the West line of said Lot 2, South 00°23'02" West 1304.48 feet to the Southwest corner of said Lot 2;

- 21. thence South 89°24'10" West 1252.71 feet along the South line of the Southwest One-Quarter of the Northeast One-Quarter of Section 30 to the Center One-Quarter corner of said Section 30;
- 22. thence North 00°30'04" West 1328.16 feet along the West line of the Southwest One-Quarter of the Northeast One-Quarter of said Section 30 to the Northwest corner of the Southwest One-Quarter of the Northeast One-Quarter of Section 30;
- 23. thence along the South line of the North One-Half of the Northwest One-Quarter of said Section 30 and also the South line of the North One-Half of the Northeast One-Quarter of said Section 25 North 89°13'20" West 3586.73 feet to the Northeast One-Sixteenth corner of said Section 25;
- 24. thence South 00°45'13" West 1331.19 feet along the East line of the Southwest One-Quarter of the Northeast One-Quarter of Section 25 to the East One-Sixteenth corner of said Section 25;
- 25. thence North 86°25'07" West 1310.42 feet along the South line of the Northeast One-Quarter of said Section 25 to the Center One-Quarter corner of said Section 25;
- 26. thence South 02°10'53" West 1187.06 feet along the Southwest One-Quarter of said Section 25 to the South One-Sixteenth corner of said Section 25;
- 27. thence South 88°38'24" East 2558.66 feet along the North line of the South One-Half of the Southeast One-Quarter of said Section 25 to the South One-Sixteenth corner of said Section 25;
- 28. thence South 01°22'47" West 1226.43 feet along the East line of said Section 25 to the Common corner of said Sections 25, 30, 31 & 36;
- 29. thence North 89°39'49" West 3834.34 feet along the South line of said Section 25 to the West One-Sixteenth corner of said Section 25;
- 30. thence North 00°59'04" East 2481.81 feet along the West line of the East One-Half of the Southwest One-Quarter of said Section 25 to the West One-Sixteenth of said Section 25;
- 31. thence South 89°55'02" West 1305.40 along the South line of the Northwest One-Quarter of said Section 25 to the One-Quarter Corner of Sections 25 & 26;

- 32. thence North 89°16'54" West 1349.43 feet along the South line of the Northeast One-Quarter of said Section 26;
- 33. thence North 00°49'21" East 2728.12 feet along the West line of the East One-Half of the Northeast One-Quarter of Section 26;
- 34. thence South 89°15'56" East 1328.64 feet to along the North line of said Section 26 to the Common Corner of Sections 23, 24, 25 & 26;
- 35. thence along the North line of Section 25 the following four (4) courses and distances:
 - (1) South 87°41'27" East 1326.72 feet to the Northwest One-Sixteenth corner of said Section 25;
- 36.(2) South 88°18'03" East 1278.82 feet to the North One-Quarter corner of said Section 25;
- 37.(3) South 87°28'48" East 1293.39 feet along the North line of said Section 25 to the East One-Sixteenth corner of said Section 25;
- 38. (4) South 85°33'43" East 1209.00 feet to the Common Corner of Sections 19, 24, 25 and 30;
- 39. thence leaving the North line of said Section 25 North 01°02'47" West 1380.30 feet along the West line of the South One-Half of the Southwest One-Quarter of said Section 19;
- 40. thence South 89°57'53" East 2389.07 feet along the North line of the South One-Half of the Southwest One-Quarter of said Section 19; and
- 41. Thence continuing North 88°45'25" East 524.60 feet along the North line of the South One-Half of the Southwest One-Quarter of said Section 19 to said **POINT OF BEGINNING.**

Total Annexation Areas containing approximately 792 acres.

The Basis of Bearings for this description is based on NAD 83, California Coordinate System (CCS83), Zone 2 (2010.00 epoch date) using the two found National Geodetic Survey monuments designated "101 MEN 25.13" and "HPGN D CA 01 CG" said bearing being South 05°01'58" East, shown on Exhibit "B", attached hereto and made part hereof

The purpose of this description is for annexation purposes and to comply with the State Board of Equalization's "Written Legal (geodetic) Description Requirements". This description is to be used to establish geodetic position only and is not intended to establish property ownership.

Lester E. Carter Jr., CA. LS No 6148

Preliminary

Exp. 3-31-2024 Date

EXHIBIT "B" CITY OF UKIAH WESTERN HILLS ANNEXATION (LAFCo FILE No. A-2022-02) PORTIONS OF YOKAYA RANCHO, AND PORTIONS OF SECTION 19, 23, 24, 25, 26 AND 30 OF TOWNSHIP 15 NORTH, RANGE 13 WEST, MOUNT DIABLO BASE & MERIDIAN (M.D.B.M.) **COUNTY OF MENDOCINO, STATE OF CALIFORNIA** SHEET 1 OF 3 CITY OF UKIAH 12 FOUND 3.25" ALUMINUM DISC MARKED CA DOT / 101 MEN 2513 RIVER 18 E. PERKINS ST. CITY OF UKIAH 23 19 24 SHEET 3 SHEET 2 POB~ WESTERN HILLS ANNEXATION AREA SEE SHEETS 2 & 3 FOR DETAILS 25 **26** 23211.80'(BASIS (CITY OF UKIAH 36 35 **32** T.15N. T.14N. **AUTHORIZATION CERTIFICATION** CHAIR OF THE LOCAL AGENCY FORMATION COMMISSION OF THE COUNTY OF MENDOCINO, STATE OF CALIFORNIA, HEREBY CERTIFY THAT SAID LOCAL AGENCY FORMATION COMMISION, BY RESOLUTION No. ___ ON THE _____ DAY OF _ APPROVED WITHIN MAP. CHAIR, LOCAL AGENCY FORMATION COMMISION CITY OF UKIAH **CERTIFICATE OF COMPLETION** RECORDED ON THE ____ DAY OF ___ AS INSTRUMENT No. MENDOCINO COUNTY RECORDS. DISCLAIMER: FOR ASSESSMENT PURPOSES ONLY. THIS DESCRIPTION OF LAND IS NOT A LEGAL PROPERTY DESCRIPTION AS DEFINED IN THE SUBDIVISION MAP ACT AND MAY NOT BE USED AS A BASIS FOR AN OFFER FOR SALE OF THE LAND DESCRIBED. FOUND 2.5" ALUMINUM DISC MARKED DOT / HPGN D CA 01 CG LEGEND: NOTES: ASSESSOR PARCEL NUMBER POB POINT OF BEGINNING 1. ALL DISTANCES SHOWN ARE IN FEET AND DECIMALS THEREOF. UVSDD UKIAH VALLEY SANITATION DISTRICT DETACHMENT 2. THE BASIS OF BEARINGS FOR THIS DESCRIPTION IS BASED ON NAD 83, CALIFORNIA COORDINATE SYSTEM CURRENT CITY OF UKIAH BOUNDARY (CCS83), ZONE 2 (2010.00 EPOCH DATE) USING THE TWO FOUND NATIONAL GEODETIC SURVEY MONUMENTS DESIGNATED "101 MEN 25.13 AND "HPGN D CA 01 CG". ALL DISTANCES CITED HEREIN ARE GRID VALUES WHICH ARE THE BASIS FOR THE AREAS SHOWN HEREON. TO OBTAIN GROUND VALUES DIVIDE THE DISTANCES PROPOSED WESTERN HILLS ANNEXATION BOUNDARY BY 0.999890795 TO OBTAIN GROUND DISTANCES. DIMENSION POINT FOUND MONUMENT AS NOTED 3. THE PURPOSE OF THIS EXHIBIT IS TO ACCOMPANY THE LEGAL DESCRIPTION "EXHIBIT A" FOR CITY OF UKIAH P S O M A S ANNEXATION OF WESTERN HILLS AND TO COMPLY WITH THE STATE BOARD OF EQUALIZATION'S "WRITTEN SECTION CORNER LEGAL (GEODETIC) DESCRIPTION REQUIREMENTS". THE LEGAL DESCRIPTION AND THIS EXHIBIT IS TO BE USED TO ESTABLISH GEODETIC POSITION ONLY AND IS NOT INTENDED TO ESTABLISH PROPERTY OWNERSHIP. SECTION QUARTER CORNER 4. THIS METES AND BOUNDS LEGAL DESCRIPTION IS COMPILED ENTIRELY FROM A COMBINATION OF MENDOCINO PREPARED AT THE REQUEST OF: COUNTY RECORD MAPS AND UNITED STATES GENERAL LAND OFFICE SURVEY PLATS AND IS NOT BASED SECTION CENTER CITY OF UKIAH UPON ANY FIELD SURVEYS. 3000 N: \6UKI010100 City Of Ukiah Annexation\Survey\LEGALS\PLAT-Western_Hills_Annexation.dwg, 10/11/2023 2:48 PM, Bradley Hampshire

EXHIBIT "B"

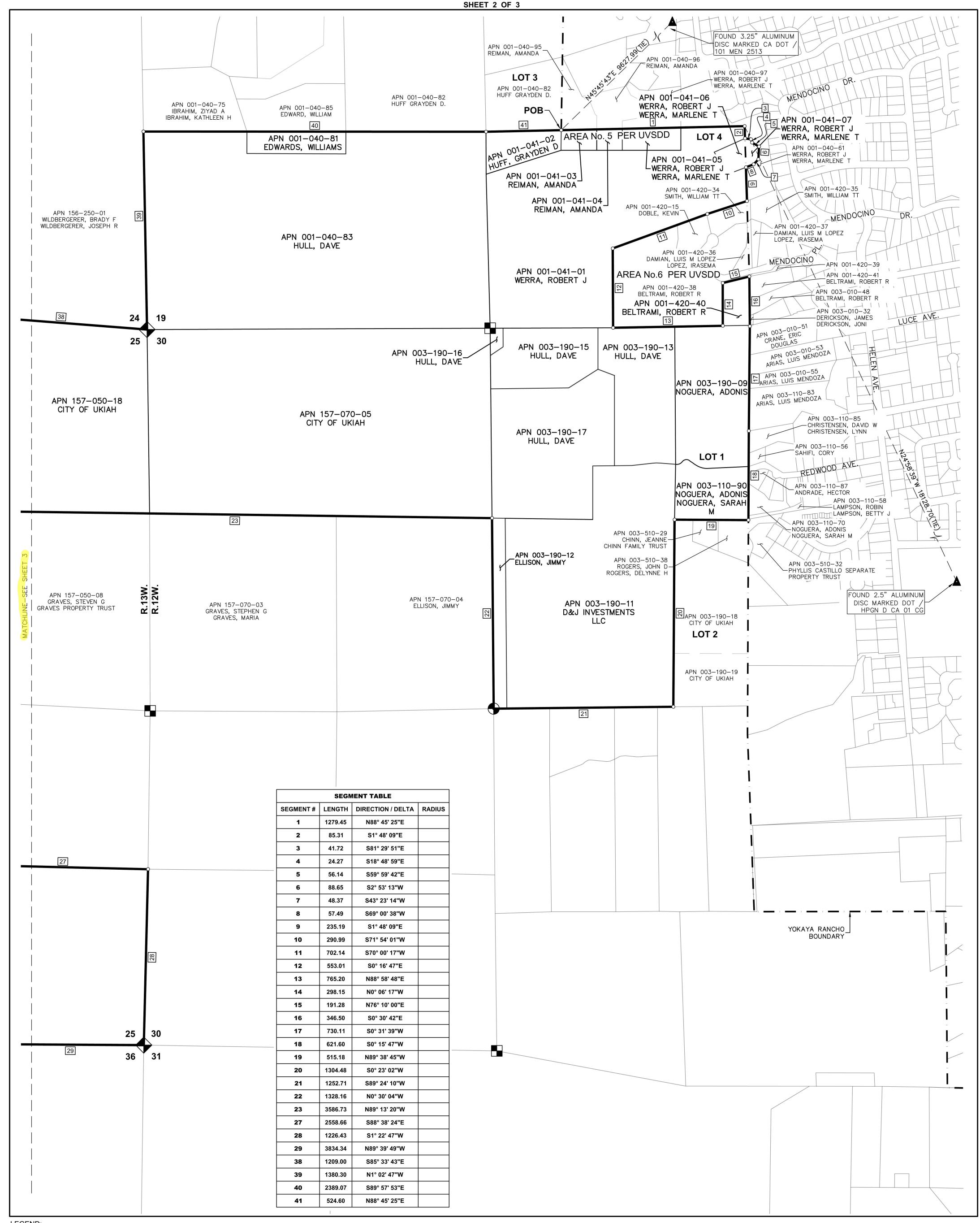
CITY OF UKIAH

WESTERN HILLS ANNEXATION

(LAFCo FILE No. A-2022-02) PORTIONS OF YOKAYA RANCHO, AND PORTIONS OF SECTION 19, 23, 24, 25, 26 AND 30 OF

> **TOWNSHIP 15 NORTH, RANGE 13 WEST,** MOUNT DIABLO BASE & MERIDIAN (M.D.B.M.)

COUNTY OF MENDOCINO, STATE OF CALIFORNIA



LEGEND:

POB

APN ASSESSOR PARCEL NUMBER

POINT OF BEGINNING

UVSDD UKIAH VALLEY SANITATION DISTRICT DETACHMENT CURRENT CITY OF UKIAH BOUNDARY

PROPOSED WESTERN HILLS ANNEXATION BOUNDARY

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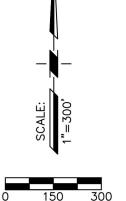
SECTION QUARTER CORNER

SECTION CORNER

SECTION CENTER

NOTES:

- 1. ALL DISTANCES SHOWN ARE IN FEET AND DECIMALS THEREOF.
- 2. THE BASIS OF BEARINGS FOR THIS DESCRIPTION IS BASED ON NAD 83, CALIFORNIA COORDINATE SYSTEM (CCS83), ZONE 2 (2010.00 EPOCH DATE) USING THE TWO FOUND NATIONAL GEODETIC SURVEY MONUMENTSDESIGNATED "101 MEN 25.13 AND "HPGN D CA 01 CG". ALL DISTANCES CITED HEREIN ARE GRID VALUES WHICH ARE THE BASIS FOR THE AREAS SHOWN HEREON. TO OBTAIN GROUND VALUES DIVIDE THE DISTANCES BY 0.999890795 TO OBTAIN GROUND DISTANCES.
- 3. THE PURPOSE OF THIS EXHIBIT IS TO ACCOMPANY THE LEGAL DESCRIPTION "EXHIBIT A" FOR CITY OF UKIAH ANNEXATION OF WESTERN HILLS AND TO COMPLY WITH THE STATE BOARD OF EQUALIZATION'S "WRITTEN LEGAL (GEODETIC) DESCRIPTION REQUIREMENTS". THE LEGAL DESCRIPTION AND THIS EXHIBIT IS TO BE USED TO ESTABLISH GEODETIC POSITION ONLY AND IS NOT INTENDED TO ESTABLISH PROPERTY OWNERSHIP.
- 4. THIS METES AND BOUNDS LEGAL DESCRIPTION IS COMPILED ENTIRELY FROM A COMBINATION OF MENDOCINO COUNTY RECORD MAPS AND UNITED STATES GENERAL LAND OFFICE SURVEY PLATS AND IS NOT BASED UPON ANY FIELD SURVEYS.



P S O M A S

PREPARED AT THE REQUEST OF: CITY OF UKIAH

EXHIBIT "B"

CITY OF UKIAH

WESTERN HILLS ANNEXATION

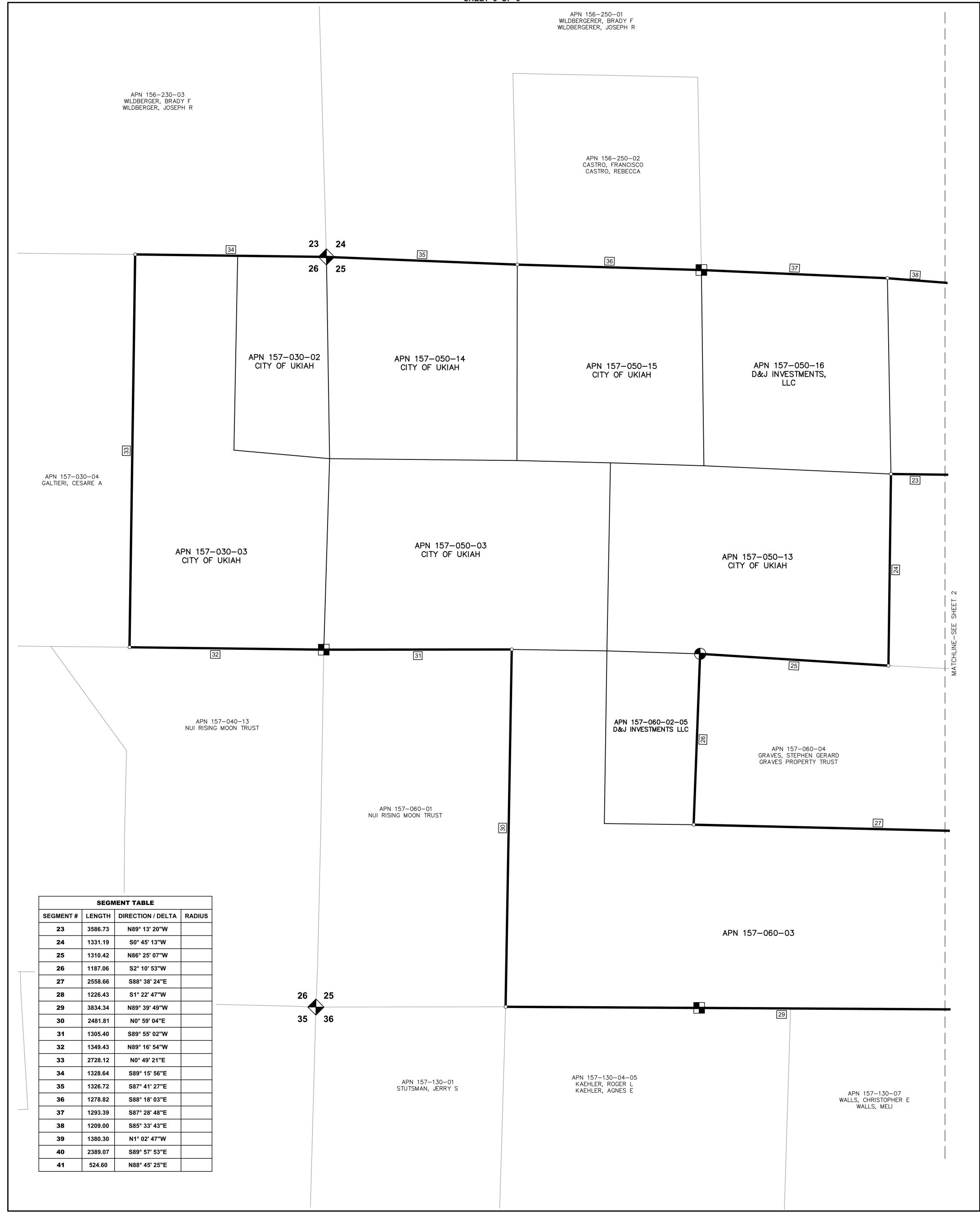
(LAFCo FILE No. A-2022-02)

PORTIONS OF YOKAYA RANCHO, AND PORTIONS OF SECTION 19, 23, 24, 25, 26 AND 30 OF TOWNSHIP 15 NORTH, RANGE 13 WEST,

COUNTY OF MENDOCINO, STATE OF CALIFORNIA

MOUNT DIABLO BASE & MERIDIAN (M.D.B.M.)





LEGEND:

0

ASSESSOR PARCEL NUMBER

POB POINT OF BEGINNING UVSDD UKIAH VALLEY SANITATION DISTRICT DETACHMENT

> CURRENT CITY OF UKIAH BOUNDARY PROPOSED WESTERN HILLS ANNEXATION BOUNDARY

DIMENSION POINT FOUND MONUMENT AS NOTED

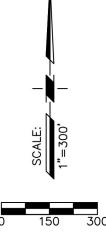
SECTION QUARTER CORNER

SECTION CORNER

SECTION CENTER

NOTES:

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- 4. THIS METES AND BOUNDS LEGAL DESCRIPTION IS COMPILED ENTIRELY FROM A COMBINATION OF MENDOCINO COUNTY RECORD MAPS AND UNITED STATES GENERAL LAND OFFICE SURVEY PLATS AND IS NOT BASED UPON ANY FIELD SURVEYS.



P S O M A S

PREPARED AT THE REQUEST OF: CITY OF UKIAH