

Name:	Makiekie and Limestone Creeks	
Location:	NZ Topo BL35 & BL36	
Description:	Series of deeply incised narrow gorges feeding down from the Ruahine Ranges and culminating in a large area of indigenous lowland forest at Makiekie Reserve. Comprising parts of Limestone Creek (downstream of glow worm caves) and Makiekie (Coal) Creek downstream to Makiekie Reserve.	
ONL/ONF/SAF:	Outstanding Natural Feature	
Natural Science:	Geological/ Geomorphological:	Erosion process of the stream is evident through the creation of steeply incised stream valleys, which are representative of this feature type characteristic of the local area. Relatively small scale when compared to other river valleys within the District which makes them an unusual and unique feature. Strong contrast to the terrace form of the surrounding agricultural land use. This area contains the Glow Worm Caves which are listed in the District Plan (Operative 2002), Appendix 1C(OF2).
	Biological/Ecological:	Indigenous forest remnants in Makiekie Reserve and on the valley sides, which enhances ecological value, increasing ecosystem health and mauri, while also creating a habitat for indigenous and exotic birdlife. The forest includes an interesting mix of conifer and broad-leaf species, as well as beech forest. In the Makiekie Scenic Reserve large rimu and tōtara are plentiful. There are also mature red beech trees up to 35m tall in some places, as well as younger, regenerated stands that have come up following wind damage. Horizons Regional Council recommends Makiekie Creek for trout fishery value in the Manawatū-Wanganui Region. Makiekie Creek was also included in a published research article by Michael K. Joy and Russell G. Death who undertook a biological assessment of rivers in the Manawatū-Wanganui region investing macroinvertebrates.
	Hydrological:	This ecological system has a catchment which includes the Ruahine Ranges as well as a wide agricultural area and this contributes to the maintenance of water quality and mauri before reaching the Pohangina River then Manawatū River.
Perceptual:	Memorability:	Memorable due to the contrast between the vegetated hillsides and incised gullies, and the surrounding agricultural land use and terrace landform.
	Legibility/Expressiveness:	Expressive of the formative geomorphological processes.
	Transient:	Stream level changes reflective of headwater rains. Deep gorges likely to have some impact on microclimatic conditions, such as creation of mist on colder mornings. Transient value related to fauna of the forest.
	Aesthetic:	Extensive indigenous vegetation throughout the valley system has a high degree of coherence and reinforces its vividness both as a feature and in contrast to the surrounding modified landscape which results in a high scenic quality. The combination of indigenous vegetation cover with the incised valley system has significance within the District through their rarity and is an excellent example of indigenous lowland forest.
	Naturalness:	High degree of perceived naturalness exhibited by the formative process and indigenous vegetation cover.
Associational:	Historical:	Unknown.
	Tangata Whenua:	Under the Settlement Act the Makiekie and Limestone Creeks are an area of interest to Ngāti Apa, Rangitāne o Manawatū, and Ngāti Hauiti. Ngāti Kahungunu are also acknowledged in relation to the area under the Settlement Act and Ōroua Declaration. Makiekie Creek was also a source of vivianite, a mineral that was used as a blue pigment for the face painting of warriors for battle. This was the only source for Rangitāne o Manawatū and so was of military significance. In a general sense, Tikanga Māori Principles such as Kaitiakitanga (Guardianship), Wairua (Well-being) and Mauri (Life force) are assumed to be important.
	Shared/Recognised:	Sixtus Lodge located just east of ONF, is used by school groups who often use the local tracks for outdoor recreation. While Glow Worm caves located under Limestone Road are at the eastern edge of ONF. Includes the Makiekie Scenic Reserve, recognised for its ecological and scenic values, which is also located along the Manawatū Scenic Route. Recognised on the AA Traveller website.
	Recreation:	Forms part of a tramping route, Deerford Track to Makiekie Creek which is used for both walking and hunting.
Summary of Key Characteristics:	High degree of perceived naturalness derived from the expressiveness of the formative processes and extent of indigenous vegetation which contrasts with the surrounding terrace landform and agricultural land use. Areas of indigenous riparian vegetation contribute to the ecological and water quality values.	
Potential Issues:	The incised valley system with native vegetation defines the feature and contributes to the perceived naturalness, aesthetic values and associational factors. It would assist protection of the key characteristics if the following were to occur: <ul style="list-style-type: none"> discourage the loss of native vegetation; discourage the establishment of exotic vegetation; discourage adverse effects on cultural values; discourage earthworks; and restrict built development. 	

ONFL8 - Outstanding Natural Feature - Makiekie and Limestone Creeks

