

# Inland Fisheries Service



## Mountain River Catchment Redfin Perch Investigation Report – 2023

### Contents

<b>1. TIMELINE OF EVENTS</b>	<b>1</b>
<b>2. INTRODUCTION</b>	<b>2</b>
<b>3. METHODS</b>	<b>3</b>
<b>3.1 CREEKS AND RIVERS SURVEY</b>	<b>4</b>
<i>MOUNTAIN RIVER</i>	<i>5</i>
<i>FOURTEEN TURN CREEK</i>	<i>6</i>
<i>PARSONS CREEK</i>	<i>7</i>
<i>BAKERS CREEK</i>	<i>8</i>
<b>3.2 DAM SURVEYS</b>	<b>10</b>
<i>TAHUNE ORCHARD DAM</i>	<i>11</i>
<i>BELL ROAD DAM</i>	<i>11</i>
<i>WAGGS ROAD DAM</i>	<i>12</i>
<i>SINGES CREEK DAM</i>	<i>13</i>
<i>PAGES ROAD DAM</i>	<i>13</i>
<i>HANSEN ORCHARDS DAM</i>	<i>14</i>
<i>BAKERS CREEK ROAD DAM</i>	<i>15</i>
<b>4. RESULTS</b>	<b>16</b>
<b>4.1. CREEK AND RIVER SURVEYS</b>	<b>16</b>
<b>4.2. DAM SURVEYS</b>	<b>19</b>
<b>5. DISCUSSION</b>	<b>21</b>
<b>6. SUMMARY</b>	<b>22</b>
<b>7. RECOMMENDATIONS</b>	<b>22</b>
<b>8. REFERENCES</b>	<b>23</b>

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### I. TIMELINE OF EVENTS

**Table I:** Timeline of redfin perch investigation in the Mountain River catchment

Date	Description
13/3/2023	A redfin perch was caught by an angler fishing from the banks of Mountain River (506048E, 5241897N), in the vicinity of Lucaston.
17/3/2023	Email received from angler detailing the capture of the redfin perch, with photographs attached.
27/3/2023	The angler was contacted by the Inland Fisheries Service (IFS) to gain information of the capture.
28/4/2023	IFS staff travelled to the Huon Valley to assess the area and search for the potential redfin perch population. Dams within the Mountain River catchment were prioritised.
29/4/2023	IFS staff returned to the Huon Valley to commence backpack electrofishing surveys in Mountain River and Fourteen Turn Creek. IFS staff catch one redfin perch approximately 150mm long, with a maturity stage of F2 in Fourteen Turn Creek, while backpack electrofishing.
8-9/5/2023	IFS staff continue surveying dams and creeks within the Mountain River catchment, using a backpack electro fisher and gill nets.
15-16/6/2023	IFS staff continue surveying dams using a backpack electro fisher, and also set a gill net in Fourteen Turn Creek. Began surveying Hansen Orchards dam, and set box traps, gill nets, and small fyke nets.
16/6/2023	IFS are informed that redfin perch may have been illegally translocated into Hansen Orchards dam.
22-23/6/2023	IFS staff survey Hansen Orchards dam using the boat electrofisher, box traps, and gill nets.
25/7/2023	IFS staff investigates the alleged report that redfin perch had been translocated into Hansen Orchards dam deliberately. Despite numerous interviews this allegation was not confirmed.
26-27/9/2023	IFS staff continued surveying Hansen Orchards dam using box traps, a backpack electrofisher, and a gill net. Surveying of dams and creeks within the Mountain River catchment continued using a backpack electro fisher.
23/1/2024	IFS staff continue surveying dams and creeks within the Mountain River catchment using a backpack electro fisher.
19/2/2024	IFS release website news article requesting anglers/public to keep an eye out for redfin perch in the Huon Valley.

### 2. INTRODUCTION

On 13 March 2023 a redfin perch was caught by an angler fishing from the banks of Mountain River near Lucaston (Figure 1). This was reported to the Inland Fisheries Service (IFS) on 17 March 2023 and confirmed via photographs. Until this time, there had been no evidence of redfin perch occurring in the Huon Valley (NVA 2024; IFS Pest App 2024).



**Figure 1:** The first reported redfin perch caught from Mountain River by an angler

Located in south east Tasmania, the Mountain River flows through numerous townships before meeting the Huon River approximately 1.7km upstream of Huonville. Both rivers are predominantly fast flowing, with the Huon River flowing into the D'Entrecasteaux Channel at Surveyors Bay. Mountain River is one of eight tributaries that flows into the 174 km long Huon River, with an average depth of 12 metres and width of three metres. Mountain River passes through various types of land ranging from wilderness to cultivated orchards and pasture. As a result, numerous creeks and dams are found along its length. A range of fish species are found in the Huon and Mountain River catchments that includes river blackfish (*Gadopsis marmoratus*), numerous galaxias species (*Galaxias spp.*), brown trout (*Salmo trutta*), short finned eels (*Anguilla australis*), lampreys (*Geotria australis*) and sandies (*Pseudaphritis urvillii*).

Within Tasmania, Redfin perch (*Perca fluviatilis*) are regarded as a pest fish and were introduced from England by Morton Allport in 1862 (Mollison 2020). Given their ability to breed prolifically, they were able to overpopulate many waters. They have spread throughout Tasmania and are also established in New South Wales, ACT, South Australia, Victoria, and south-western Western Australia.

The IFS has highlighted the invasive nature of redfin perch in interpretation material, signage and on the IFS website. Anglers are encouraged to humanely dispatch and appropriately dispose of any redfin perch caught. Legislation is also in place under the *Inland Fisheries Act 1995* which prohibits the translocation or transfer of any species of fish without the authority of the Director of Inland Fisheries, with significant penalties applying.

Redfin perch prefer to inhabit still and slow flowing waters, in particular areas with aquatic vegetation and other structure (McDowall 1996). Given most of the Huon and Mountain River consists of fast flowing water with strong currents, there is limited habitat for redfin perch in these waters. However, given the abundance of farm dams and smaller slower flowing rivulets in the lower catchment, it is likely redfin perch may have originated from these locations. As a result, a decision was made to survey key waters in the surrounding Mountain River catchment.

The objectives of the survey were:

- Determine the distribution of the redfin perch in the Mountain River catchment
- Search for and detect the source redfin perch population in the Mountain River catchment
- Determine the stock structure and overall population size of redfin perch in the Mountain River catchment.
- Determine whether it is possible to eradicate redfin perch from the Mountain River catchment.

### 3. METHODS

A variety of surveying techniques and gear types were used for this survey. For creeks and rivers, a backpack electrofisher and three inch monofilament gill nets were used. For dams, three inch monofilament gillnets, fine mesh fyke nets, box traps and backpack electrofishing were used.

Redfin perch captured were measured to fork length (mm), sex determined and their sexual maturity staged.

For females, the gonad condition is defined in the following stages: 1 - immature, gonad tissue developing; 2 - gonad non-vascularized, eggs visible (maturing); 3 - mature, vascularized but not running; 4 - running ripe; 5 - spent.

For males, the gonad condition is defined in the following stages: 1 - immature, gonad tissue developing; 2 - gonad non-vascularized, milt visible (maturing), 3 - mature, vascularized but not running, 4 - running ripe.

A fish is classed as indeterminate if it is unable to be identified as either a male or female (usually due to being sexually immature). All other freshwater fish caught as bycatch were identified, counted and released.

### 3.1 CREEKS AND RIVERS SURVEY

Backpack electrofishing and gill net effort was undertaken in Mountain River, Fourteen Turn Creek, Parsons Creek, and Bakers Creek from 29 April 2023 to 23 January 2024 (Table 1; Figure 2).

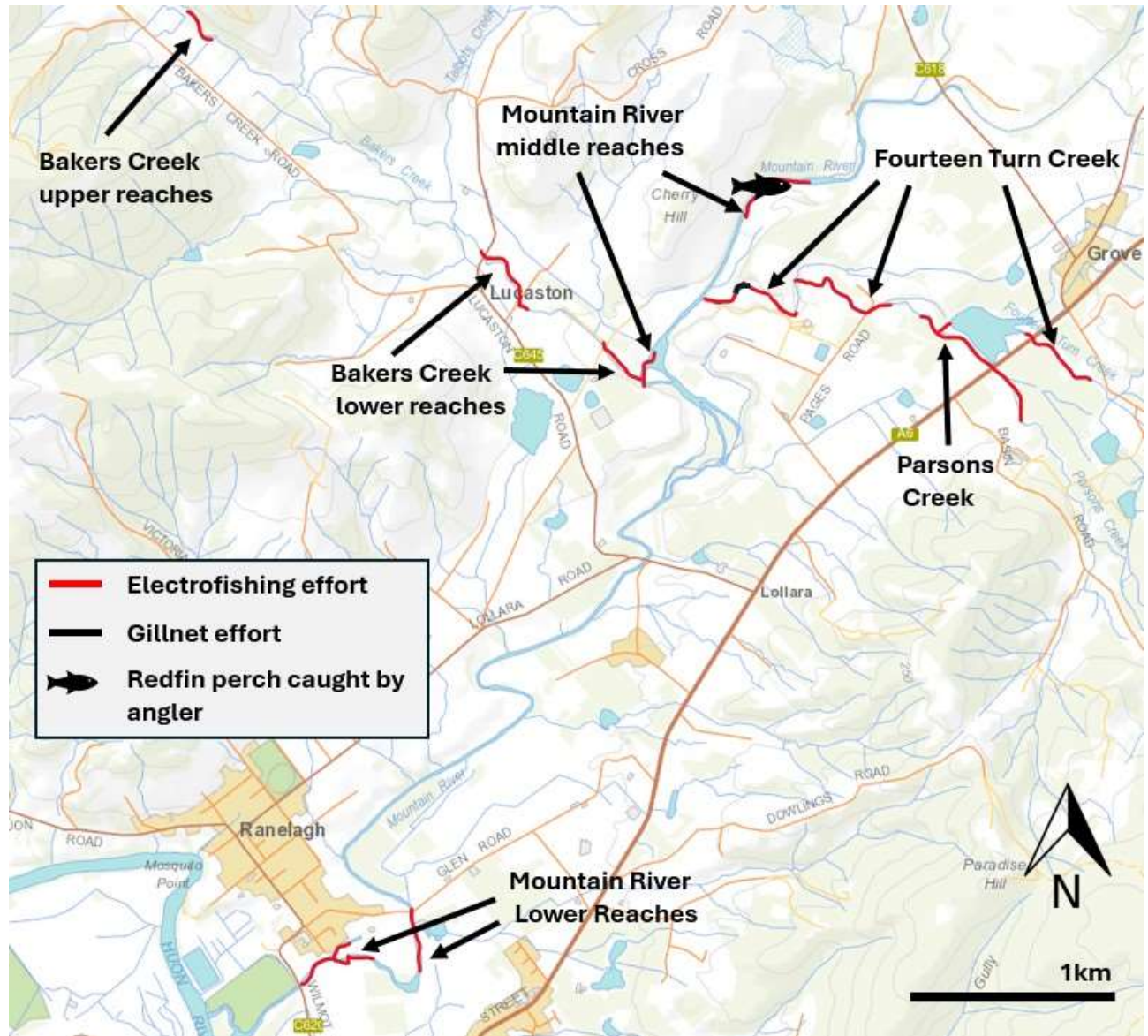


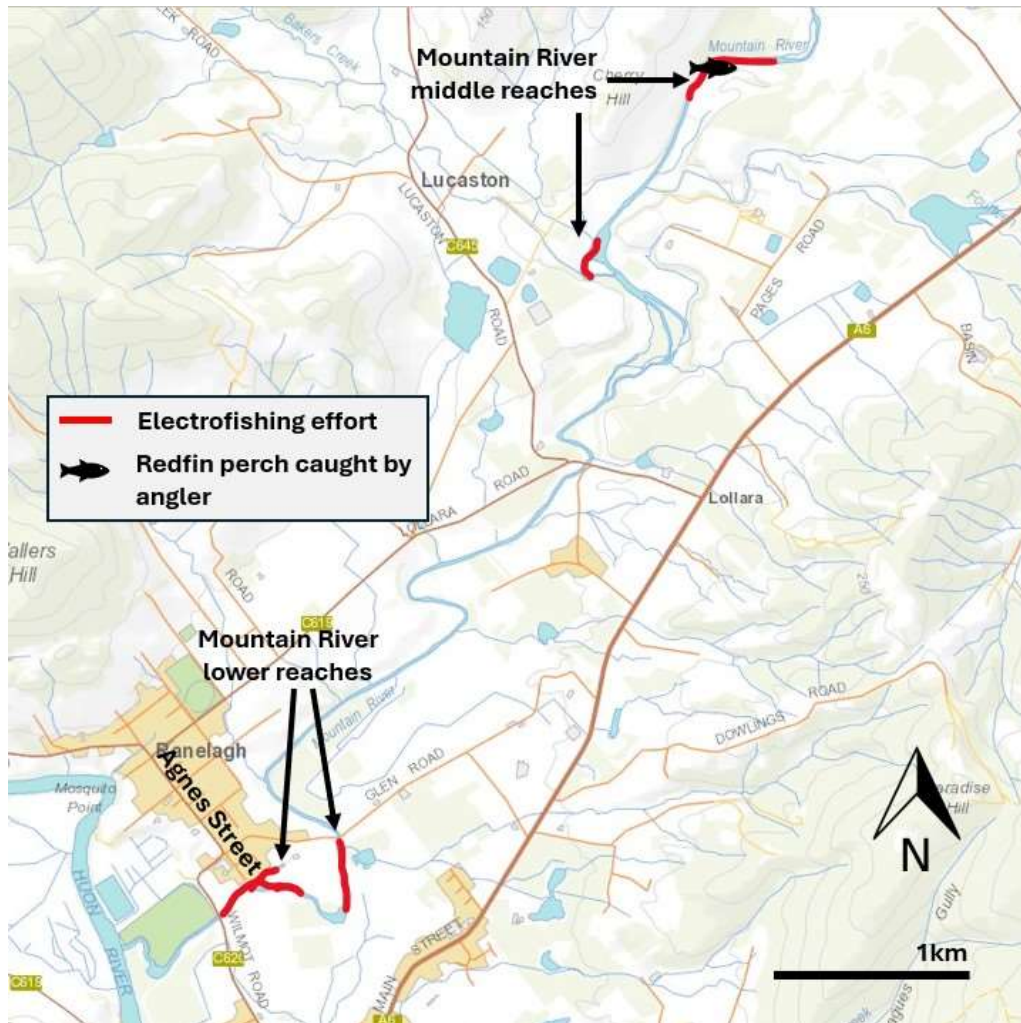
Figure 2: Map illustrating the locations of all creek and rivers surveyed in the Mountain River catchment.

### **Mountain River**

On 29 April 2023, IFS staff used a backpack electrofisher to survey key sites in the lower reaches of Mountain River. Surveying commenced at Wilmot Bridge (503365E, 5237218N), where IFS staff first electrofished the northern side of the river, approximately 400m upstream (Figure 3). The stretch directly east of Agnes Street had highly suitable habitat for redfin perch, with extensive aquatic weed, sunken timber and slow moving water. The southern side of the river, approximately 540m upstream from the Wilmot Bridge (Figure 3) was also surveyed. This section of river was rocky with a steady current, with very few back waters where redfin perch could settle in. The next location surveyed was Glen Bridge (504025E, 5237652N). This area was rocky with a steady current. Approximately 400 meters of stream along both banks were surveyed (Figure 3).

IFS staff then surveyed the middle reaches of Mountain River, in the vicinity of where the first redfin perch was caught by an angler. Electrofishing commenced at a farm property in Grove (505929E, 5241605N). Approximately 500m upstream was electrofished (Figure 3). This section of the river consisted of rocky habitat, with a medium flow. The area directly upstream of where the first redfin perch was caught had fast flowing water with a natural 'weir'.

On 9 May 2023, IFS staff electrofished Mountain River from the confluence of Bakers Creek and Mountain River (505364E, 5240754N), continuing upstream for approximately 100 metres (Figure 3).



**Figure 3:** Map detailing backpack electrofishing effort on Mountain River.

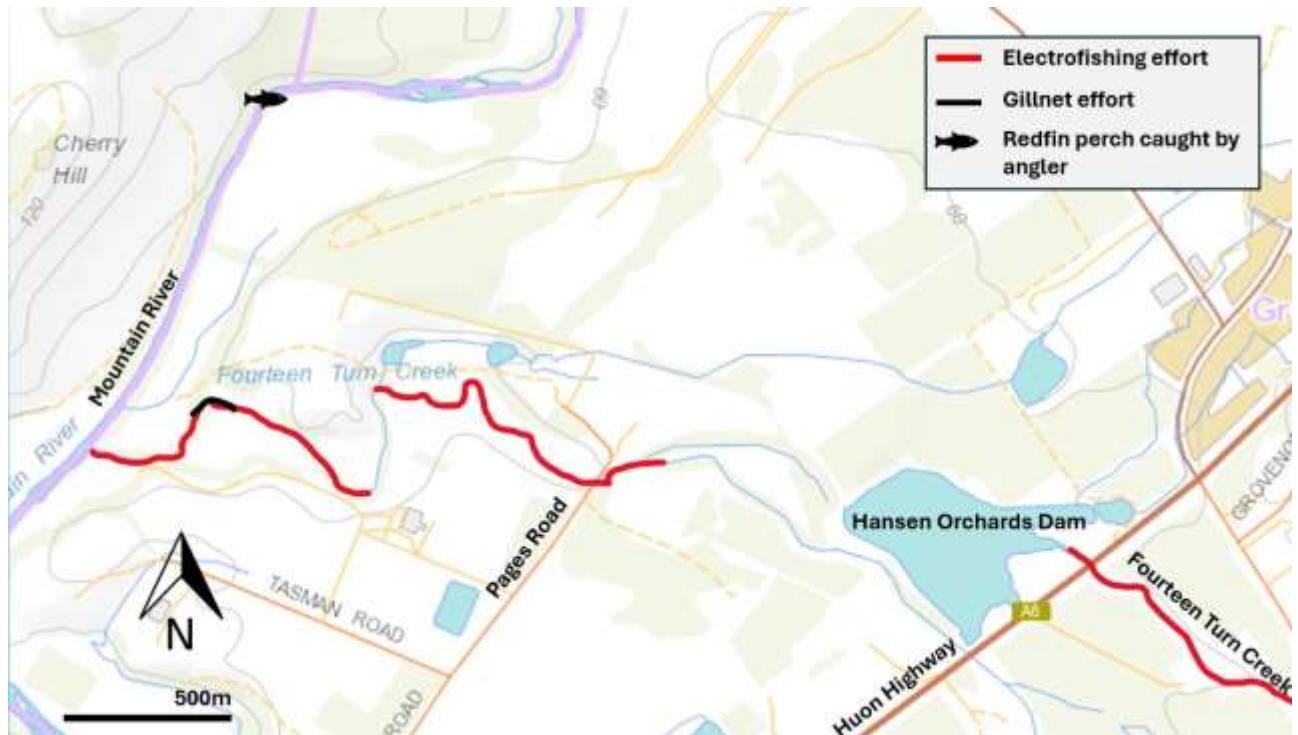
### **Fourteen Turn Creek**

On 29 April 2023 IFS staff used a backpack electrofisher to sample various sites on Fourteen Turn Creek. Electrofishing commenced at the confluence of Mountain River and Fourteen Turn Creek (505724E, 5241229N), shocking upstream approximately 1,100 metres (Figure 4). At this time, the creek had a slow current with lots of aquatic weed, rocks, logs and backwaters.

On 8 May 2023, IFS staff continued backpack electrofishing on Fourteen Turn Creek upstream of Hansen Orchards dam. Electrofishing commenced from the dam, then under the Huon Highway (507690E, 5240978N), continuing upstream for approximately 400 meters (Figure 4). IFS staff then travelled downstream of Hansen Orchards dam, electrofishing approximately 140m upstream of Pages Road bridge (506700E, 5241162N). Electrofishing continued for a stretch of 1,000m downstream of the bridge (Figure 4).



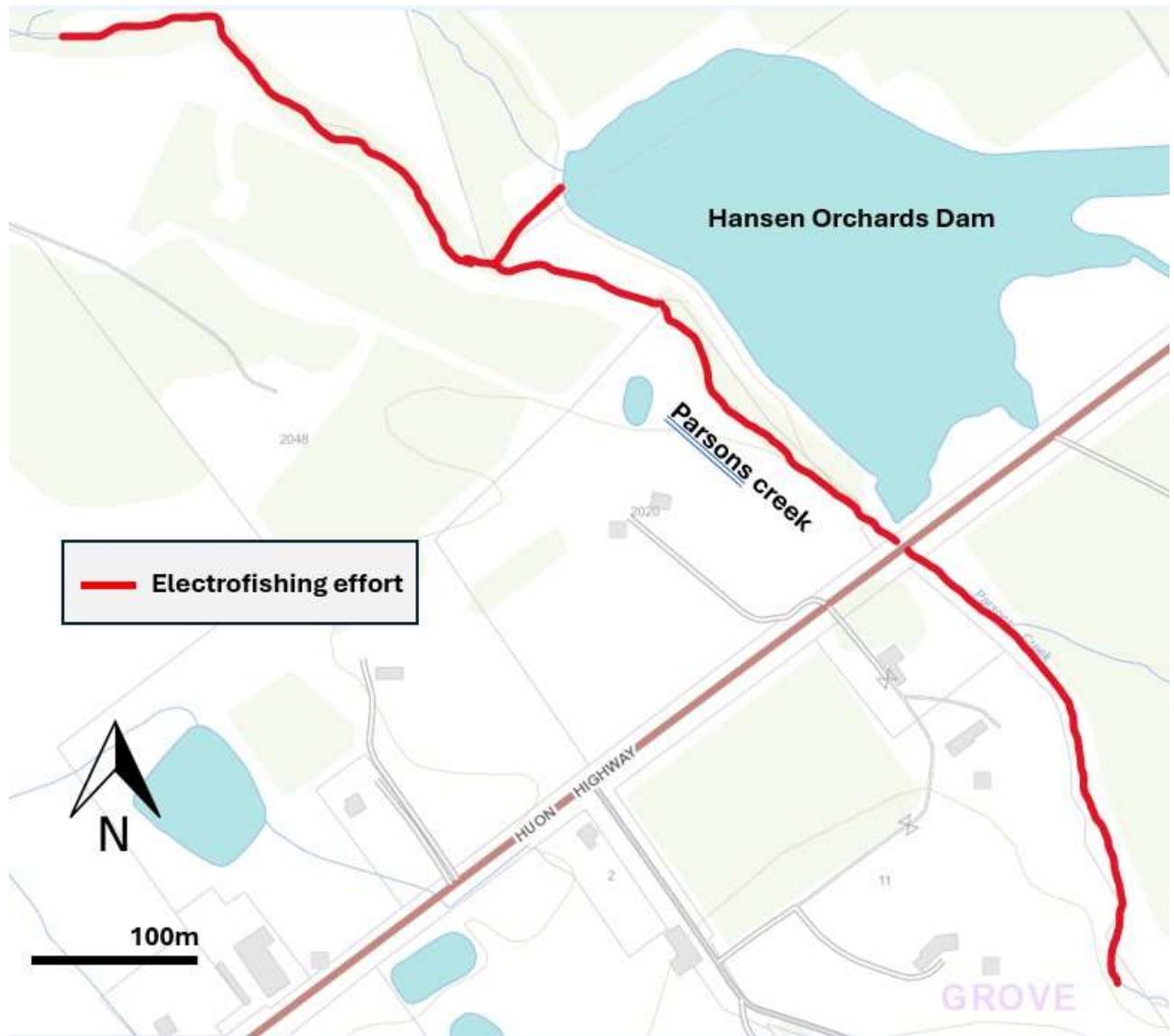
On 15 June 2023, IFS staff set a 100m three inch gill net in the vicinity of where a redfin perch was caught previously by IFS staff (505955E, 5241323N) on the 29 April 2023. The gill net was set parallel to the shoreline and left to soak for one hour. Backpack electrofishing was also undertaken, approximately 100m upstream and downstream of this location (Figure 4).



**Figure 4:** Map detailing backpack electrofishing and gill net effort on Fourteen Turn Creek.

### **Parsons Creek**

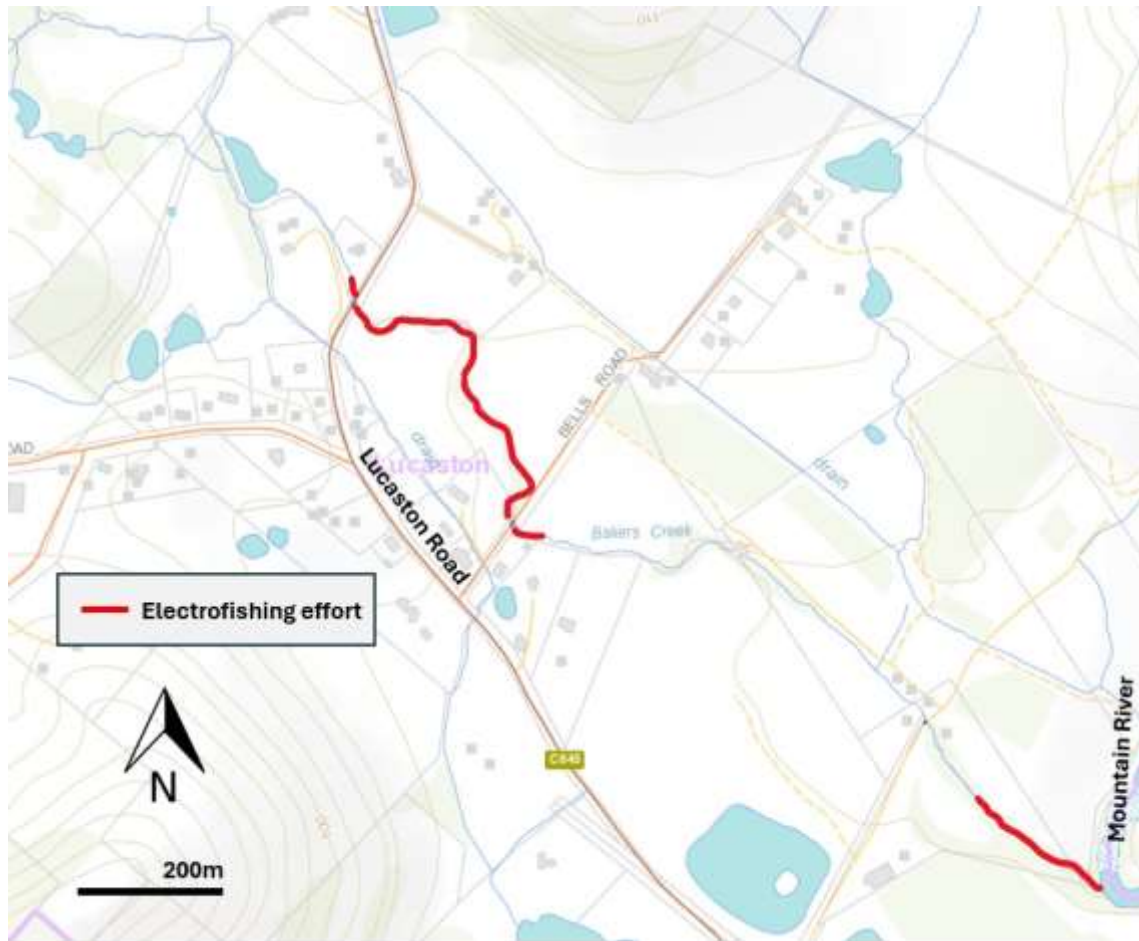
On 8 May 2023, IFS staff surveyed Parsons Creek. The creek flows out of the northwest corner of Hansen Orchards dam via the riparian valve in the dam wall. Backpack electrofishing commenced from the riparian valve (507179E, 5241088N) down to Parsons Creek which is approximately 75 metres (Figure 5). A 1,100 metre stretch of Parsons Creek upstream of this location was electrofished, (506856E, 5241207N) (Figure 5).



**Figure 5:** Map detailing backpack electrofishing effort on Parsons Creek

### **Bakers Creek**

On 9 May 2023, the lower reaches of Bakers Creek were surveyed. This reach is relatively small with a slow current entering Mountain River (Figure 6). The creek had numerous amounts of rock, fallen timber and small weed beds. IFS staff commenced backpack electrofishing from the confluence of Bakers Creek and Mountain River (505364E, 5240754N), continuing upstream for approximately 200 metres (Figure 6). The area upstream of this section had very little flow and no pools. IFS staff then surveyed upstream, 20 metres downstream of Bells Road bridge (504640E, 5241200N) continuing through to 20 metres upstream of Lucaston Road bridge (504444E, 5241468N) (Figure 6). This whole section was approximately 500 meters long (Figure 6).



**Figure 6:** Map detailing backpack electrofishing effort on the lower reaches of Bakers Creek.

On 23 January 2024, IFS staff surveyed a small section of the upper reaches of Bakers Creek at 320 Bakers Creek Road. A 100 metre stretch of Bakers Creek was backpack electrofished (Figure 7). Electrofishing commenced at this location (502596E, 5242995N), and continued upstream.



Figure 7: Map detailing backpack electro-fishing effort in the upper reaches of Bakers Creek.

### 3.2 DAM SURVEYS

Eight dams around the Mountain Creek catchment were surveyed from 8 May 2023 to 23 January 2024 using a range of techniques, which include backpack electrofishing, gill nets, box traps, and fyke nets (Table 1; Figure 8).

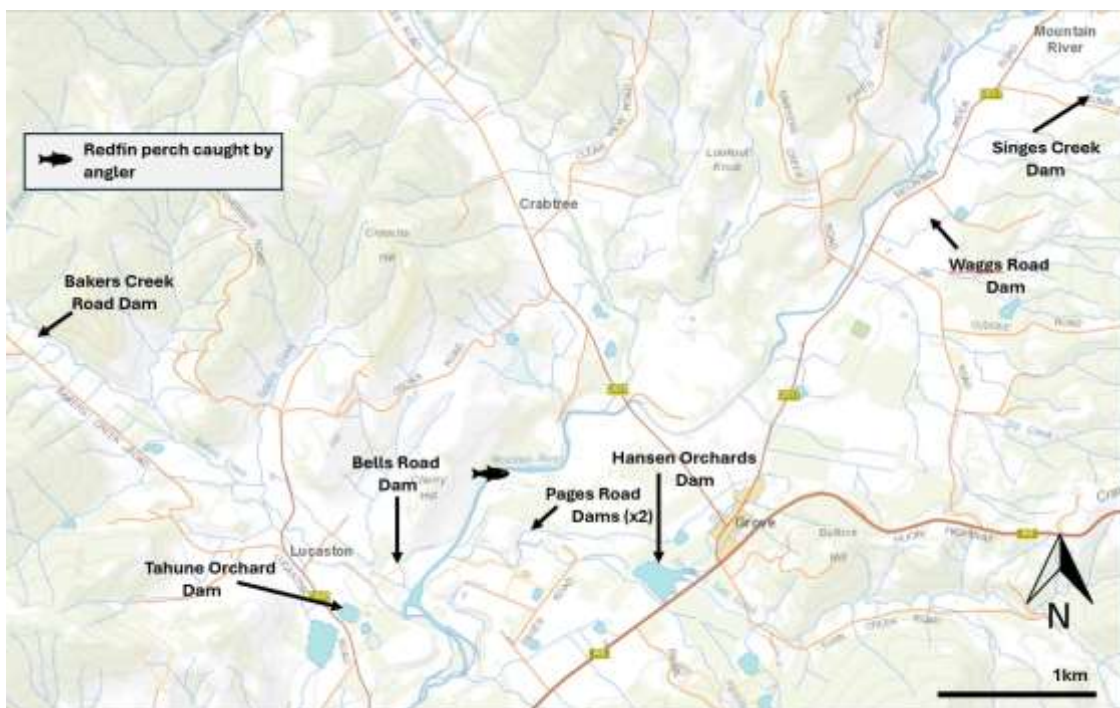


Figure 8: Map illustrating the locations of all dams surveyed in the Mountain River Catchment.

### **Tahune Orchard Dam**

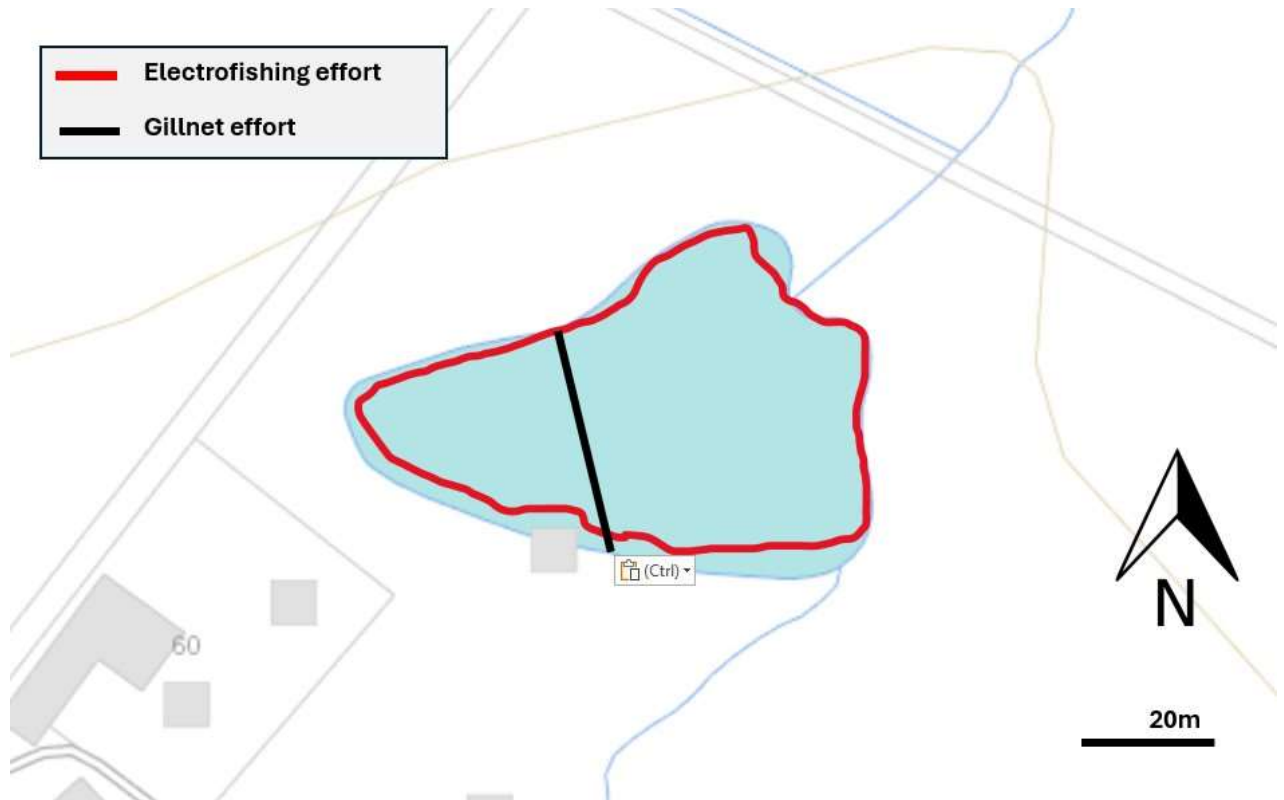
On 8 May 2023, IFS staff backpack electrofished and set a gill net in the Tahune Orchard dam (505029E, 5240781N) that spills into Bakers Creek at high levels. A 100 metre three inch gillnet was waded across the eastern corner of the dam and left to soak for one hour (Figure 9). Electrofishing was also undertaken around the perimeter of the dam (Figure 9).



**Figure 9:** Map of Tahune Orchard dam showing backpack electrofishing and gillnet effort.

### **Bells Road Dam**

On 8 May 2023, IFS staff backpack electrofished and set a gill net in Bells Road dam (505127E, 5241616N) that spills into Bakers Creek at high levels. A 100 metre three inch gillnet was waded across the centre of the dam and left to soak for one hour (Figure 10). Electrofishing was also undertaken around the perimeter of the dam (Figure 10).



**Figure 10:** Map of Bells Road dam showing electro-fishing and gillnet effort

### Waggs Road Dam

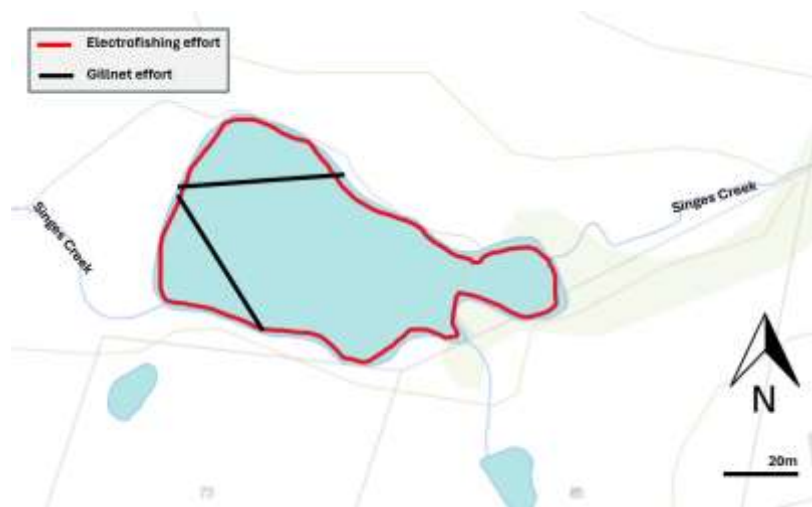
On 9 May 2023, IFS staff backpack electrofished a dam adjacent to Waggs Road (509623E, 5243948N). This dam spills into Mountain River at high levels. On the day of the survey, the water level was very low with no suitable habitat present. IFS staff backpack electrofished the perimeter of the dam (Figure 11).



**Figure 11:** Map of Waggs Road dam showing electro-fishing effort.

### **Singes Creek Dam**

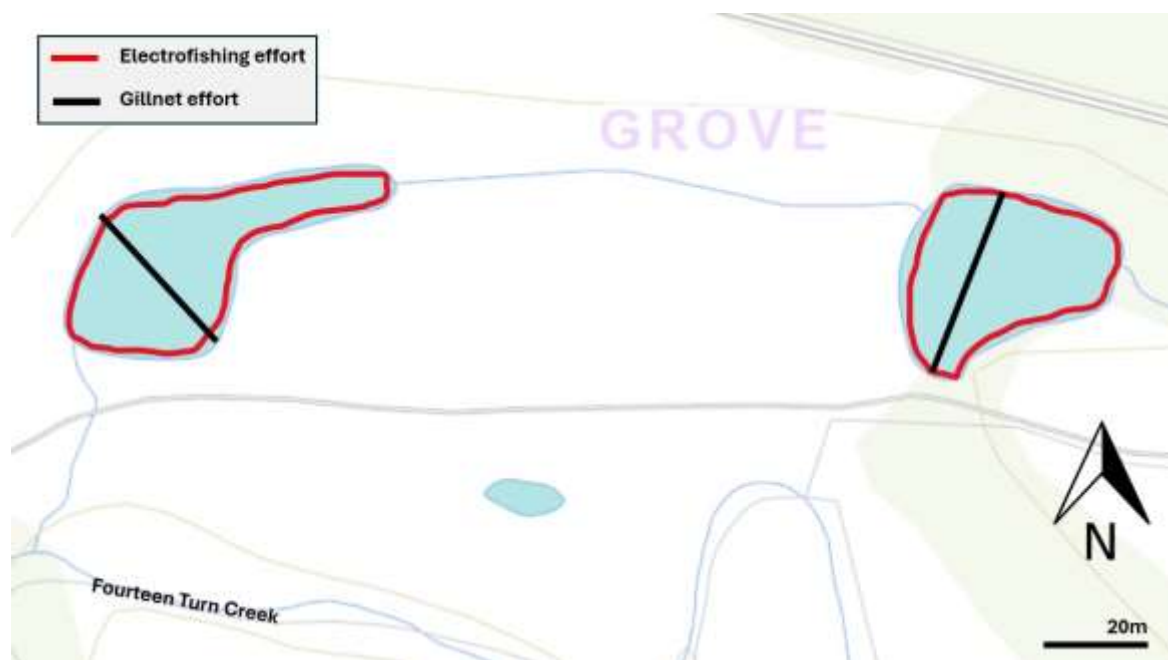
On 9 May 2023, IFS staff backpack electrofished and set two gill nets in a dam on Singes Creek (510882E, 5244985N). It was noted that Singes Creek flowed into and out of the dam. IFS staff set two 100-metre three inch gillnets across the southwestern and the northwestern corners of dam (Figure 12) and left to soak for one hour. Electrofishing was also undertaken around the perimeter of the dam (Figure 12).



**Figure 12:** Map of Singes Creek dam showing electro-fishing and gillnet effort.

### **Pages Road Dam**

On 15 June 2023, IFS staff backpack electrofished and set gill nets in two dams at the end of Pages Road (506320E, 5241418N and 506520E, 5241415N). According to the landowner, these dams spill into Fourteen Turn Creek frequently and have good habitat. IFS staff set one 100m three inch gillnet across the center of each dam and left them to soak for one hour (Figure 13). Backpack electrofishing was undertaken around the perimeter of both dams (Figure 13).



**Figure 13:** Map of the two Pages Road dams showing electro-fishing and gillnet effort.

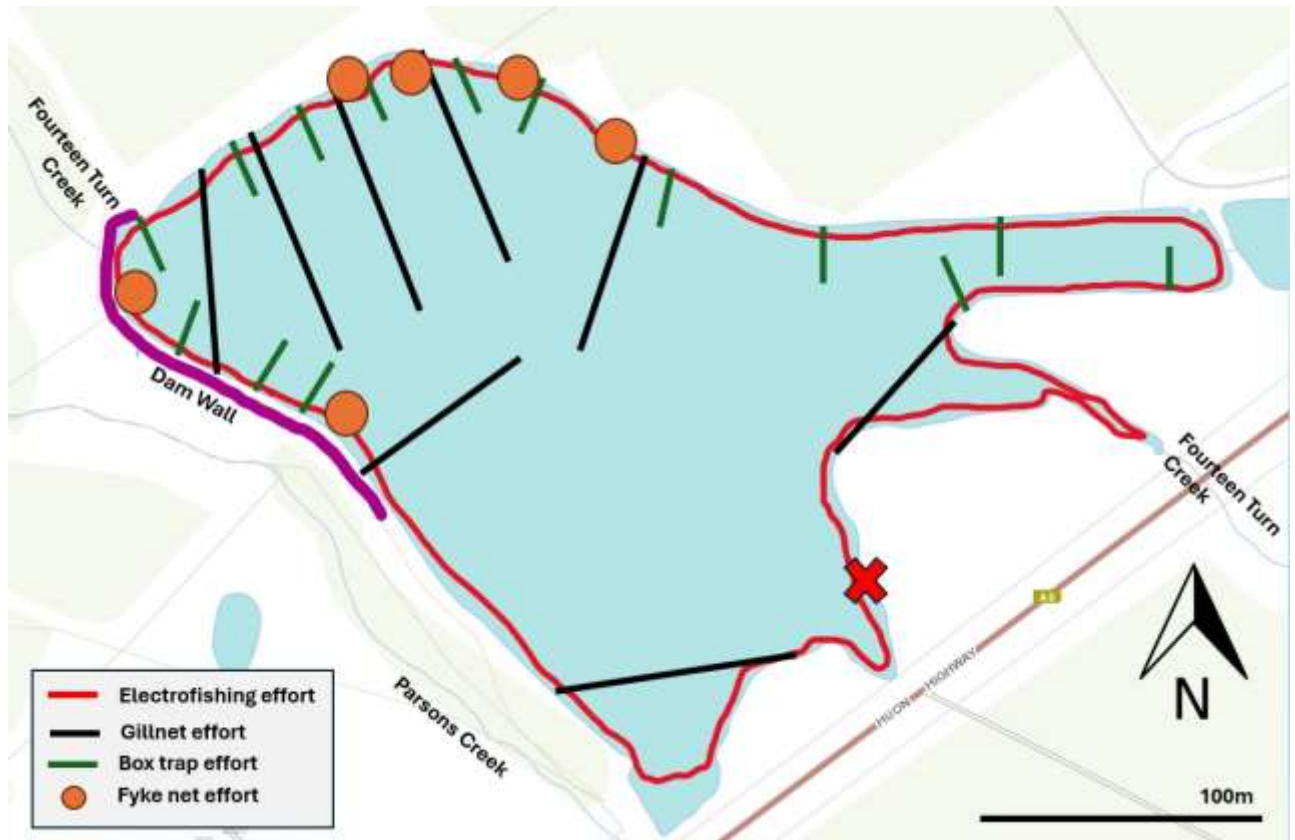
### **Hansen Orchards Dam**

Hansen Orchards dam is large dam located close to the intersection of the Huon Highway and Mountain River Road at Grove. It was originally situated between Parsons Creek and Fourteen Turn Creek but was expanded in 2021 and now includes Fourteen Turn Creek.

On 15 June 2023, IFS staff surveyed Hansen Orchards dam (507397E, 5241022N). Four box traps, two fine mesh fyke nets and one 100m three inch gillnet were set at various locations along the dam wall (Figure 14). This is the deepest part of the dam where the original creek bed lies. As a result, it is most likely to have the majority of suitable habitat, e.g. rocks, logs and aquatic plants. The gillnets were set for two hours before being retrieved. The box traps and fine mesh fyke nets were set overnight and retrieved the next day.

On 22 June 2023, IFS staff returned to Hansen Orchards dam. A 4.2m aluminum dinghy was used to set 13 box traps and two 100m three inch gillnets at various locations around the dam (Figure 14). Gillnets were set for eight hours, while the box traps were set overnight and retrieved the next day. On 26 September 2023 the dam was resurveyed. A 4.2m aluminium dinghy was used to set 14 box traps and two 100m three inch gill nets at various locations around the dam. (Figure 14). The gillnets were set for eight hours, while the box traps were set overnight and retrieved the next day. Backpack electrofishing was also undertaken around the perimeter of the dam (Figure 14).

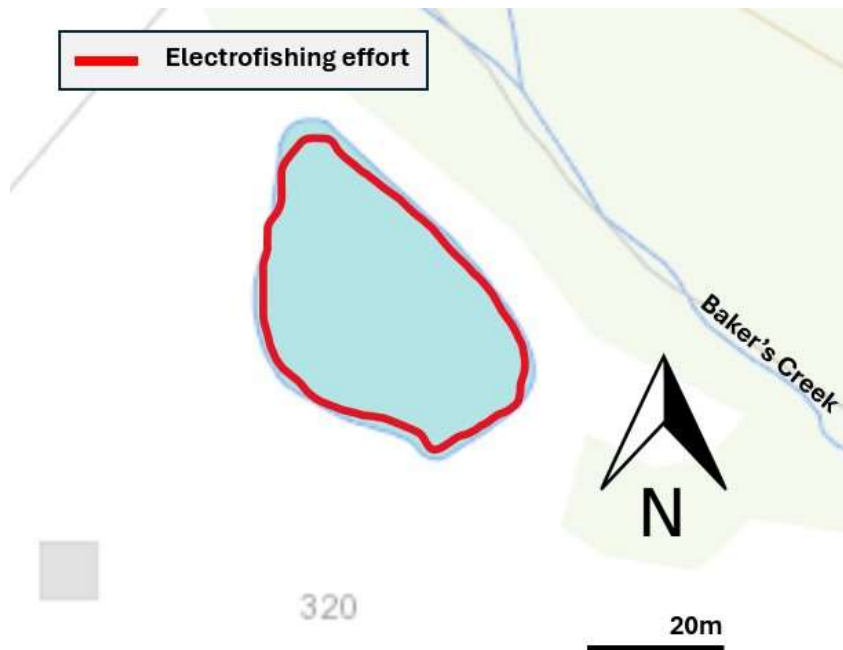




**Figure 14:** Map of Hansen Orchards dam showing backpack electrofishing, gillnet, box trap, and fine mesh fyke net effort. Note: X- Location where vessel was launched.

### **Bakers Creek Road Dam**

On 23 January 2024, IFS staff backpack electrofished a dam at the top of the Bakers Creek catchment (502487E, 5243015N). This dam spills into Bakers Creek when full and has large amounts of aquatic macrophyte around the perimeter of the dam. Electrofishing was undertaken around the edges of the dam (Figure 15).



**Figure 15:** Map detailing backpack electro-fishing effort on Bakers Creek dam.

## 4. RESULTS

### 4.1. CREEK AND RIVER SURVEYS

Backpack electrofishing was undertaken in numerous creeks and rivers in the Mountain River catchment for a total of 319 minutes (5.3 hours). Sites were selected based on areas with favourable redfin perch habitat as well as being within the proximity of the first redfin perch captured during the early stages of the surveys. Only one redfin perch was caught (Figure 16) that was found in Fourteen Turn Creek (505955E, 5241323N), approximately 1km from where the first redfin perch was caught in Mountain River (Figure 17). It measured 150mm length and was a female of stage 2 maturity (Maturing, with eggs visible). One 50 metre three inch gill net was also set for one hour in Fourteen Turn Creek. In total, 136 brown trout (*Salmo trutta*), 20 short finned eels (*Anguilla australis*), 635 sandies (*Pseudaphritis urvilli*), 434 common jolly tails (*Galaxias maculatus*) and two juvenile pouched lamprey (*Geotria australis*) were caught as bycatch (Table 2).

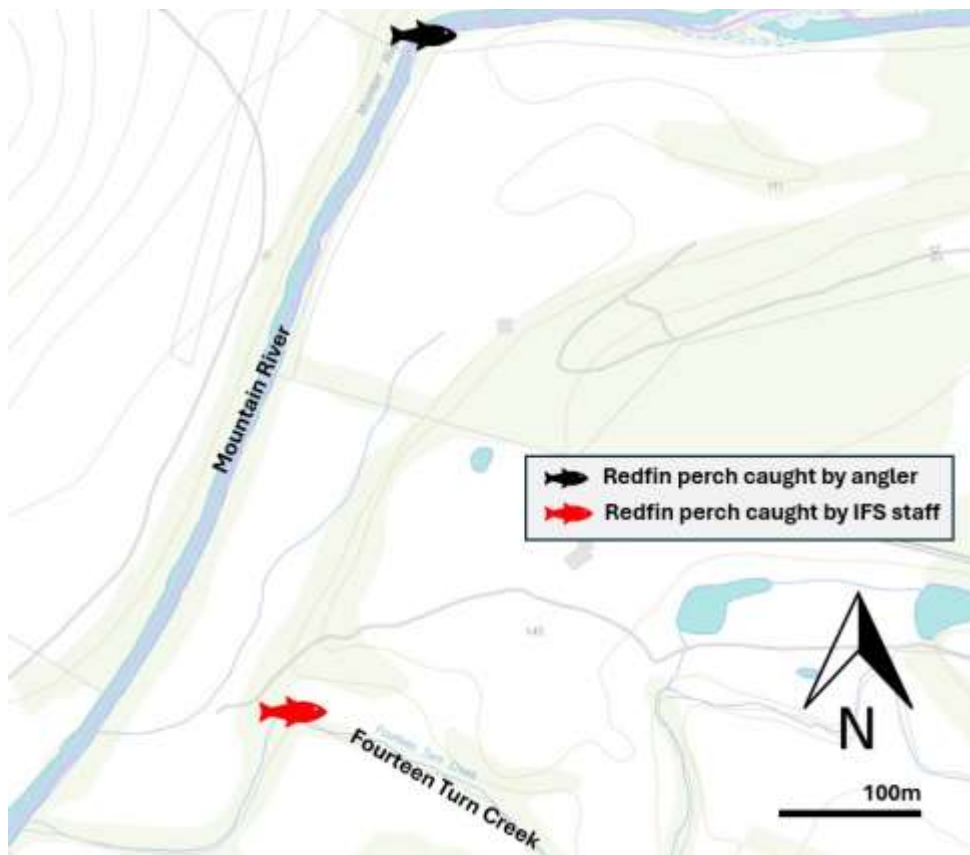
**Table 2:** Surveyed creeks and rivers in the Mountain River catchment showing date, location, shock/soak time and catches for each site.

Date	Location	Eastings and northings	Gear type	Shock/soak time (minutes)	Redfin perch	Bycatch
29/4/2023	3.1.1 Wilmot Bridge, Mountain River	503365E, 5237218N	x1 Backpack electrofisher	33	0	15 SD, 10 JT
29/4/2023	3.1.1 Glen Bridge, Mountain River	504025E, 5237652N	x1 Backpack electrofisher	10	0	26 BT, 1 SE, 19 SD
29/4/2023	3.1.1 Grove, Mountain River	505929E, 5241605N	x1 Backpack electrofisher	20	0	8 BT, 4 SE, 50 SD, 4 JT, 2 PL
9/5/2023	3.1.1 Bakers Creek confluence, Mountain River	505364E, 5240754N	x1 Backpack electrofisher	5	0	0
29/4/2023	3.1.2 Mountain River confluence, Fourteen Turn Creek	505724E, 5241229N	x1 Backpack electrofisher	40	1	10 BT, 6 SE, 80 SD, 120 JT
8/5/2023	3.1.2 Huon Highway, Fourteen Turn Creek	507690E, 5240978N	x1 Backpack electrofisher	20	0	60 SD, 100 JT
8/5/2023	3.1.2 Pages Road bridge, Fourteen Turn Creek	506700E, 5241162N	x1 Backpack electrofisher	20	0	20 BT, 150 SD, 80 JT
8/5/2023	3.1.3 Parsons Creek	506856E, 5241207N	x1 Backpack electrofisher	30	0	2 SE, 10 JT
9/5/2023	3.1.4 Bakers Creek	505364E, 5240754N	x1 Backpack electrofisher	16	0	20 BT, 60 SD, 100 JT
9/5/2023	3.1.4 Lucaston Road bridge, Bakers Creek	504444E, 5241468N	x1 Backpack electrofisher	40	0	52 BT, 75 SD, 130 JT
15/6/2023	3.1.2 Mountain River confluence, Fourteen Turn Creek	505724E, 5241229N	x1 Backpack electrofisher	80	0	4 SE, 6 SD, 4 JT
15/6/2023	3.1.2 Mountain River confluence, Fourteen Turn Creek	505724E, 5241229N	x1 three inch gill net	60	0	0
23/01/2024	3.1.4 Dam, Bakers Creek	502596E, 5242995N	x1 Backpack electrofisher	10	0	3 SE

Note: Bycatch- SD- sandy, JT- common jollytail, BT- brown trout, SE- short finned eel, PL- Pouched lamprey.



**Figure 16:** The one redfin perch caught in Fourteen Turn Creek using a backpack electrofisher.



**Figure 17:** The location of the two redfin perch caught in the Mountain River catchment.

### 4.2. DAM SURVEYS

Backpack electrofishing and 100m three inch gill nets were used to survey seven dams in the Mountain River catchment (Table 3). A total electrofishing time of 225 minutes (3.8 hours) and 285 minutes (4.8 hours) of gill net soak time were undertaken to survey the Tahune Orchard dam, Bells Road dam, Waggs Road dam, Singes Creek dam, Pages Road dams (x2) and Bakers Creek Road dam (Table 3). In total, 77 short finned eels, 33 sandies and 21 common jollytails were caught, with no redfin perch detected (Table 3). Dams were selected based on being within proximity of the first redfin perch detected as well as being a potential site for containing a source population.

Hansen Orchards dam was surveyed extensively over six days, split into three separate trips (Table 3). A higher amount of survey effort was dedicated to this dam consisting of backpack electrofishing, 100m three inch gill nets, fyke nets and box traps. This was due to “hear-say” and anecdotal evidence that suggested redfin perch had been illegally released into this dam, and was likely to be the source population. In June 2023, a total of 600 minutes (10 hours) of gill net soak time, 2,520 minutes (42 hours) of box trap and fyke net hours were undertaken. No redfin perch were detected, but 10 short finned eels and 10 sandies were caught (Table 3). Given the cold temperature of the water associated with winter, another two day survey was repeated during September 2023, in line with the spawning season for redfin perch, therefore increasing the likelihood of capture. Over two days, a total electrofishing time of 100 minutes (1.7 hours), 480 minutes (8 hours) of gill net soak time and 1,440 minutes (24 hours) of box trap hours were undertaken. No redfin perch were detected, but 13 short finned eels and 4 sandies were caught (Table 3).

**Table 3:** Surveyed dams in the Mountain River catchment showing date, location, shock/soak time, and catch of each site.

Date	Location	Eastings and Northings	Gear type	Shock/soak time (minutes)	Redfin perch	Bycatch
8/5/2023	3.2.1 Tahune Orchard dam	505029E, 5240781N	x1 backpack electrofisher	15	0	3 SE
8/5/2023	3.2.1 Tahune Orchard dam	505029E, 5240781N	x1 three inch gill net	45	0	0
8/5/2023	3.2.2 Bells Road dam	505127E, 5241616N	x1 backpack electrofisher	30	0	15 SE
8/5/2023	3.2.2 Bells Road dam	505127E, 5241616N	x1 three inch gill net	60	0	0
9/5/2023	3.2.3 Waggs Road dam	509623E, 5243948N	x1 Backpack electrofisher	10	0	6 SE
9/5/2023	3.2.4 Singes Creek dam	510882E, 5244985N	x1 Backpack electrofisher	40	0	20 SE
9/5/2023	3.2.4 Singes Creek dam	510882E, 5244985N	x2 three inch gill net	60	0	0
15/6/2023	3.2.5 Pages Road dam 1	9506320E, 5241418N	x1 Backpack electrofisher	60	0	15 SE, 33 SD, 21 JT
15/6/2023	3.2.5 Pages Road dam 1	9506320E, 5241418N	x1 three inch gill net	60	0	0
15/6/2023	3.2.5 Pages Road dam 2	506520E, 5241415N	x1 backpack electrofisher	60	0	15 SE
15/6/2023	3.2.5 Pages Road dam 2	506520E, 5241415N	x1 three inch gill net	60	0	0
15/6/2023	3.2.6 Hansen Orchards dam	507397E, 5241022N	x1 three inch gill nets	120	0	0
15-16/6/2023	3.2.6 Hansen Orchards dam	507397E, 5241022N	x4 box traps x2 fyke nets	1080	0	5 SE, 4 SD
22/6/2023	3.2.6 Hansen Orchards dam	507397E, 5241022N	x2 three inch gill nets	480	0	0
22-23/6/2023	3.2.6 Hansen Orchards dam	507397E, 5241022N	x13 box traps	1440	0	5 SE, 6 SD
26/9/2023	3.2.6 Hansen Orchards dam	507397E, 5241022N	x2 three inch gill nets	480	0	0
26-27/9/2023	3.2.6 Hansen Orchards dam	507397E, 5241022N	x14 box traps	1440	0	5 SE, 4 SD
27/9/2023	3.2.6 Hansen Orchards dam	507397E, 5241022N	x1 backpack electrofisher	100	0	8 SE
23/1/2024	3.2.7 Bakers Creek Road dam	502487E, 5243015N	x1 backpack electrofisher	10	0	3 SE

Note: Bycatch- SD- sandy, JT- common jollytail, SE- short finned eel.

### 5. DISCUSSION

Extensive surveys in creeks, rivers and dams in the Mountain River catchment were undertaken, with only one redfin perch was captured. This fish was caught in Fourteen Turn Creek, approximately 1km from where the first redfin perch was caught and reported by an angler in Mountain River. Given their close proximity, it was assumed the source population would be in that area of the catchment. Despite surveying upstream and downstream of this area, there was no sign of any redfin perch. This suggests that if redfin perch are established in the Mountain River catchment, the population is likely to be low. The low numbers may be due to a relatively new population which hasn't had time to establish in the catchment. The angler that caught the first redfin perch in Mountain River on 13 March 2023, reported that both him and his father had been fishing in that area for 40 and 70 years respectively and had never seen or heard of a redfin perch being captured. Prior to this, the only indication of redfin perch in this catchment came from another angler on 10 April 2022, where he suspected seeing a redfin perch chasing his lure, however he was not able to catch it. Mountain River consisted of mostly rocky habitat, with relatively fast flowing water and limited numbers of pools and weed beds. As redfin perch prefer slow flows and still water containing abundant macrophytes (McDowall 1996), Mountain River is marginal habitat for the species to establish.

The other creeks surveyed in the vicinity were Bakers Creek, Parsons Creek and Fourteen Turn Creek. Bakers Creek was a small stream with some structure and minimal gradient. Due to its narrow width and limited number of pools, it is likely to flood during periods of moderate rainfall. Given these factors, it is unlikely that redfin perch could establish. Parsons Creek was a relatively narrow stream, resembling a drain. There was a limited amount of structure and aquatic plants, with very little flow and unlikely for redfin perch to establish. Fourteen Turn Creek consisted of slow flowing water, with extensive rocks, fallen timber, aquatic plants and several pools. As a result, it is possible that redfin perch could establish in this creek. The redfin perch caught by IFS staff in Fourteen Turn Creek is unlikely to have swum upstream from Mountain River, given the gradient of the first 100 metres of the creek is steep with several natural instream barriers. It is more likely it has moved downstream from further up Fourteen Turn Creek. Redfin perch are known to have relatively weak swimming abilities and generally cannot swim long distances into strong flowing water (Davies 2000). If the source population is established in Fourteen Turn Creek, it is likely to be small. The section of Mountain River from the confluence of Fourteen Turn Creek upstream to the location of where the first redfin perch was caught is relatively flat. Despite the strong current, given the short distance of approximately 1km, it is possible that the redfin perch caught by the angler may have also originated from Fourteen Turn Creek.

The other possible scenario is the source population of redfin perch is established in a dam which was not detected. If the dam only spills occasionally during winter and spring (high rainfall events), only small numbers of fish may be able to escape downstream at these times. The dams surveyed during this investigation did not result in the capture of any redfin perch, despite all dams being suitable for establishment. Given the techniques and amount of effort undertaken in each of these dams, it is unlikely there were any redfin perch present.

During the surveys a range of native and acclimatised fish species were captured. Numerous sandies, common jollytails, short finned eels, pouched lamprey and brown trout were caught while using backpack electrofishers, box traps and fyke nets. Other native species known to inhabit the Mountain River catchment include the river blackfish (*Gadopsis marmoratus*) and the spotted galaxias (*Galaxias truttaceus*) (NVA 2024). Given the highly predatory nature of redfin perch, it is likely that if they became established in this catchment they would feed on many of these species either during their juvenile or adult phases.

### 6. SUMMARY

Despite extensive surveys only two redfin perch have been detected in the Mountain River catchment. This suggests redfin perch may not be established, or they are in very low numbers. It is also possible the source population may be in a farm dam that was not surveyed. If redfin perch were able to establish in Fourteen Turn Creek, they would be able to disperse into Mountain and Huon rivers. However, given the results of this investigation the risk of establishment appears to be very low. The IFS continue to monitor this situation and will respond to any potential redfin perch reports from anglers and the general public.

### 7. RECOMMENDATIONS

- The public/anglers are encouraged to report any potential redfin perch sightings in the Mountain River catchment to the IFS.
- An educational campaign is undertaken to educate the public/fishers of the negative effects of translocating redfin perch to new locations.
- Further investigations are undertaken to detect the source population.



### 8. REFERENCES

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