

# Trail Usage Report

## Summer 2022



Prepared by:

**United Riders of Crowsnest (UROC)**

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[www.uroc.ca](http://www.uroc.ca)

## Introduction

This report covers trail traffic surveys on Pass Powderkeg trails for the period May 1 to October 31, 2022.

This is the ninth in a series of summer trail usage reports. A comprehensive description of the equipment and methodology is available in a previous report dated November 2014.

## Equipment and Methodology

### *Pass Powderkeg*

Six trail traffic counters were installed - referred to as PPTC01, PPTC02, PPTC03, etc. (Pass Powderkeg Traffic Counter 01 and so on). Trail counters were checked and data download approximately once every month.

PPTC01 was installed on the Double Dirt trail in the woods below the water tower;

PPTC02 was installed on the Double Dirt trail between the water tower and the Dale Strandquist trail;

PPTC03 was installed on the Chainsaw Massacre trail above the Dale Strandquist trail;

PPTC04 was installed on the lower half of Berma-Grin.

PPTC05 was installed around mid-hill on the Buck-50 trail;

PPTC06 was installed lower hill on the Buck-50 trail.

## Results

As usual, when discussing the results from IR counters, we refer to "counts" not "users". We cannot tell whether a single user passes a counter once going outbound and a second time on their return (i.e. counted twice) or whether that user returned by a different route (only counted once).

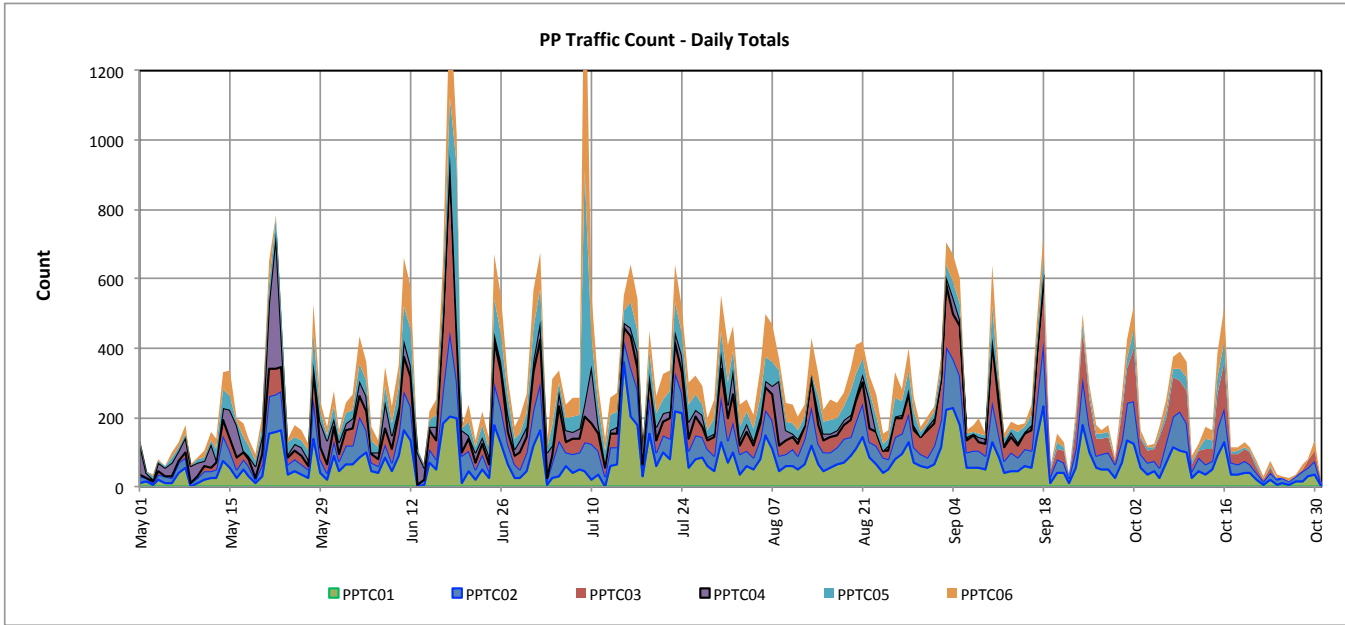
In general, the data has received a limited amount of verification and some processing to remove obvious errors. The verification was simply that of comparing counted traffic with known traffic i.e. when the number of participants and approximate time of passage was known.

The IR counters will count people, large dogs, deer and other large animals i.e. any reasonably large warm body. It cannot indicate whether the user is ascending or descending the trail or whether a person is hiking, biking or using snowshoes.

In the histograms presented in the Appendix A, for "Day of the Week", Sunday is represented by "1", Monday by "2" etc. The histograms show normalized data where, for example, the count for a particular day of the week was divided by the total count i.e. its proportion of the total. The normalized data provides a better basis for comparing the distributions for the different locations.

For the "Time of Day" histograms, the first time period is from midnight to 02:59, the second from 03:00 to 05:59 etc. It is probably reasonable to assume that most counts after 10 pm and before 6 am are animal movements. The overnight counts have been typically 1% to 2% of the total for each data set (after eliminating probable animal movements).

## Pass Powderkeg Summary Graphs



**Figure 1 - Traffic Count, Daily Totals**

**PPTC01** Double Dirt trail in the woods below the water tank

**PPTC02** Double Dirt trail between the water tank and the Dale Strandquist trail

**PPTC03** Chainsaw Massacre trail above the Dale Strandquist trail

**PPTC04** Berma-Grin below lower entrance

**PPTC05** Buck-50 trail above the mid-hill connection

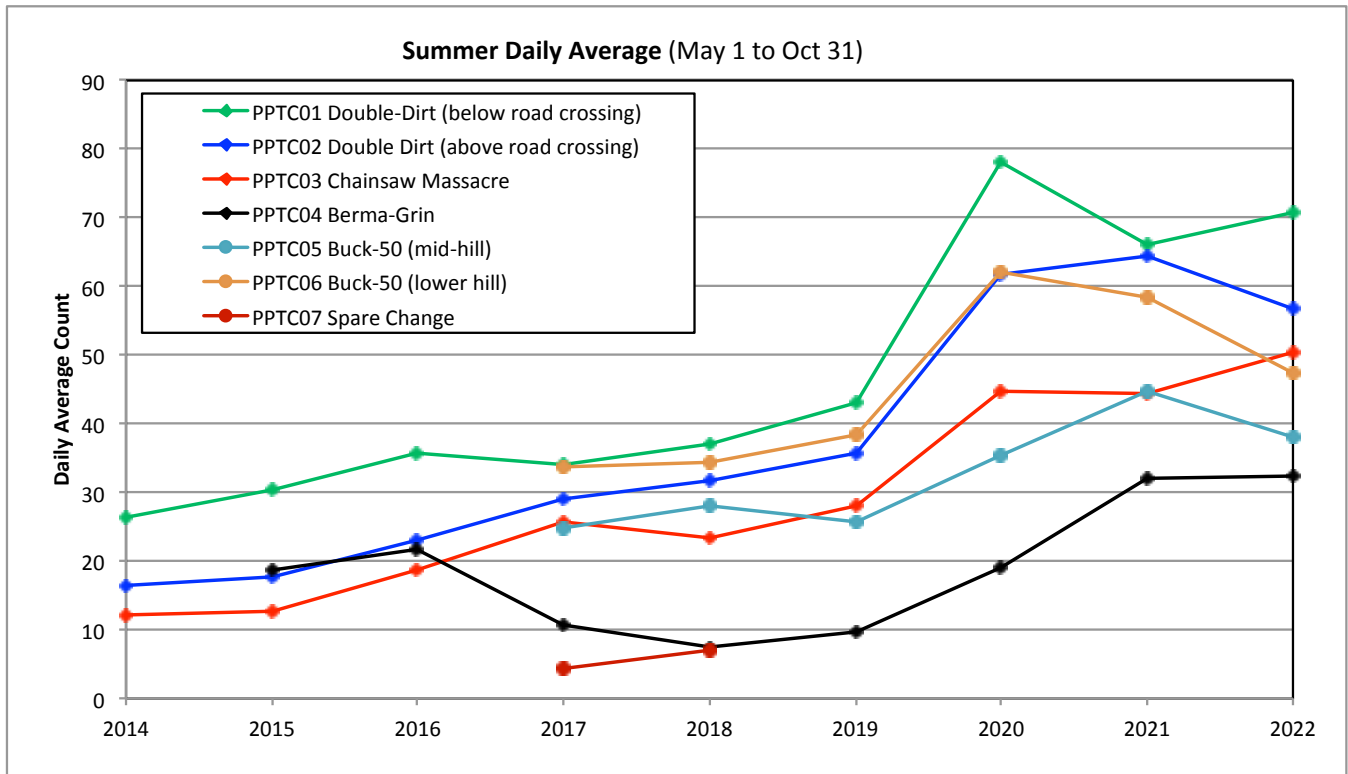
**PPTC06** Buck-50 trail near Southmore

**PPTC07** Spare Change (this location no longer used)

The above stacked area graph gives a general idea of the traffic pattern through the summer season. Individual users may pass several counters, so the daily totals are not helpful in quantifying unique users; it is the pattern of usage that is illustrated – busy weekends, periods of low usage, events, etc.

### Holidays and Events Summer 2022

|                        |                   |
|------------------------|-------------------|
| Victoria Day           | May 23, 2022      |
| Canada Day             | July 1, 2022      |
| Canadian Enduro Series | June 18-19, 2022  |
| Sinister 7             | July 9, 2022      |
| Crowsnest 100          | August 6, 2022    |
| Labour Day             | September 5, 2022 |



**Figure 2 - Summer Daily Average**

**Summary Table**

| Counter | Trail               | Start Date | End Date | No. of Days | Counts |           |           |
|---------|---------------------|------------|----------|-------------|--------|-----------|-----------|
|         |                     |            |          |             | Total  | Avg Daily | Max Daily |
| PPTC01  | Double Dirt-spresso | May 01     | Oct 31   | 183         | 12990  | 71        | 359       |
| PPTC02  | Double Dirt-spresso | May 01     | Oct 31   | 183         | 10407  | 57        | 249       |
| PPTC03  | Chainsaw Massacre   | May 01     | Oct 31   | 183         | 9269   | 51        | 479       |
| PPTC04  | Berma-Grin          | May 04     | Oct 31   | 180         | 5839   | 32        | 390       |
| PPTC05  | Buck-50, mid-hill   | May 01     | Oct 31   | 183         | 6992   | 38        | 672       |
| PPTC06  | Buck-50, lower hill | May 01     | Oct 31   | 183         | 8699   | 47        | 726       |

**Figure 3 - Summary Statistics**

**Summary Table Notes:**

1. Start Date – start of reporting period or when counter was first installed; End Date – end of reporting period or when no further data was available.
2. No. of days – number of days between Start and End when valid data was available. During the winter, some counters get obscured by snow i.e. no data available for some periods.

## Discussion of Results

The data provides a good general indication of the overall level of traffic and is useful for year-to-year comparisons. The IR counters provide no meaningful distinction between types of users and undoubtedly includes some animal counts. However, despite the limitations of the IR counters, the installations have remained consistent for up to nine years, so the data is considered to be valid for year-to-year comparisons. From a trail manager's perspective, the data helps to show which trails are favoured by users and on what type of trail the club should focus its development activities.

The 2022 summer biking season overall showed similar levels of trail traffic to that of 2021. There were a total of 54,196 counts in 2022 versus 53,037 counts in 2021 (for the same six counters). However, during the summer 2021, one of our counters did not record data for one month of the summer season, so our adjusted estimation for total counts in 2021 was 58,000 (see 2021 Summer Trail Usage Report for further details). Using this adjusted trail total count for 2021, total counts for 2022 show a 6.5% decrease.

Some of the decrease in overall counts for this summer can undoubtedly be attributed to a change in traffic patterns with the opening of the new Electric Monkey and Nothing to Luge bike trails at Pass Powderkeg on September 1, 2022. These trails did not have trail counters installed on them for the remainder of the bike season, so users riding down these trails would not be counted. These users may have passed some counters on their uphill ride to access the new trails, but we saw a decrease in traffic on downhill trails such as Buck 50 once we opened these new downhill trails. Some trail users were also riding or driving up the Pass Powderkeg road to do shorter laps of the Nothing to Luge trail, accessed from the day lodge parking lot. It is estimated that overall traffic for 2022 is very comparable to that of 2021 when this traffic pattern change has been taken into account.

With most Covid restrictions lifted this summer, it is interesting to see that our trail traffic levels stayed relatively similar to the last few years. Although people could travel to more places, it seems as though many people still chose to come ride in the Crowsnest Pass, likely among other destinations as well. On weekends especially, we saw trailhead facilities such as the skills park area being well used and parking lots were often full of vehicles.

This summer saw the return of some larger events that utilized the Pass Powderkeg trail system. The most significant of these events were the Canadian Enduro Series and Sinister 7. The high amount of traffic on trails during these events can be seen in Figure 1 (Traffic Count, Daily Totals). Sinister 7 specifically runs past both counters on Buck 50 (PPTC05 & PPTC06), which can be seen in the appendix graphs.

Appendix A provides further details for each counter.

## Recommendations

Trail usage surveys will be continued this coming winter to further identify trends, and we expect to continue surveys in the summer season in future years. Additional trail counters have been purchased, and will potentially be installed on Electric Monkey and Nothing to Luge next summer.

Other approaches to analyzing trail traffic data should also be considered, in addition to the data provided by these IR counters at Pass Powderkeg. An increasingly popular approach to analyzing trail traffic is to combine counter data with Strava and Trailforks heat maps. Heat maps show traffic on trails throughout Crowsnest Pass by a large variety of users. Heat maps may be used as a tool to understand traffic patterns and popularity of trails that do not have trail counters on them. It is unknown what proportion of users track their activities with Trailforks and Strava, so it is difficult to get overall trail traffic numbers from these apps. However, they seem to demonstrate overall traffic trends among different trail user groups.

Strava Metro may be able to provide extensive trail data to parties such as Forestry, Parks and Tourism and the Municipality of Crowsnest Pass. Organizations such as UROC do not seem to be able to obtain access to this data, but we will keep up to date on the latest developments.

## Appendix A: Additional Graphs for Pass Powderkeg Trail Traffic Summer 2022

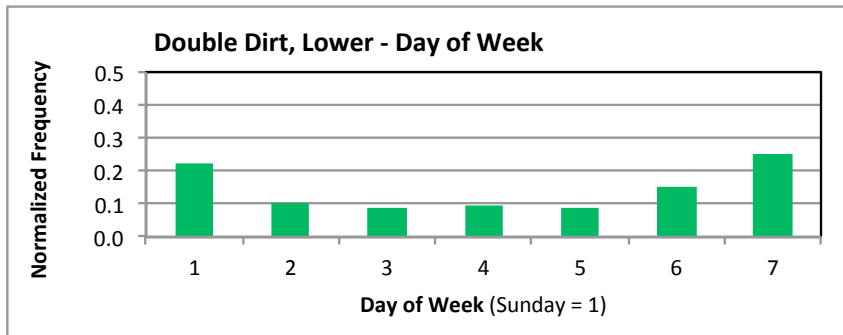


Figure 4

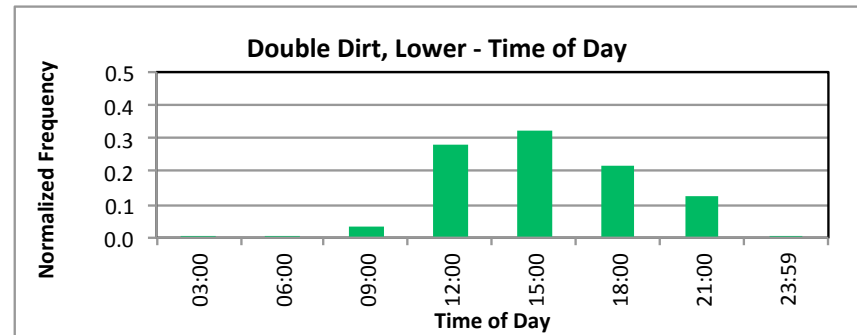


Figure 5

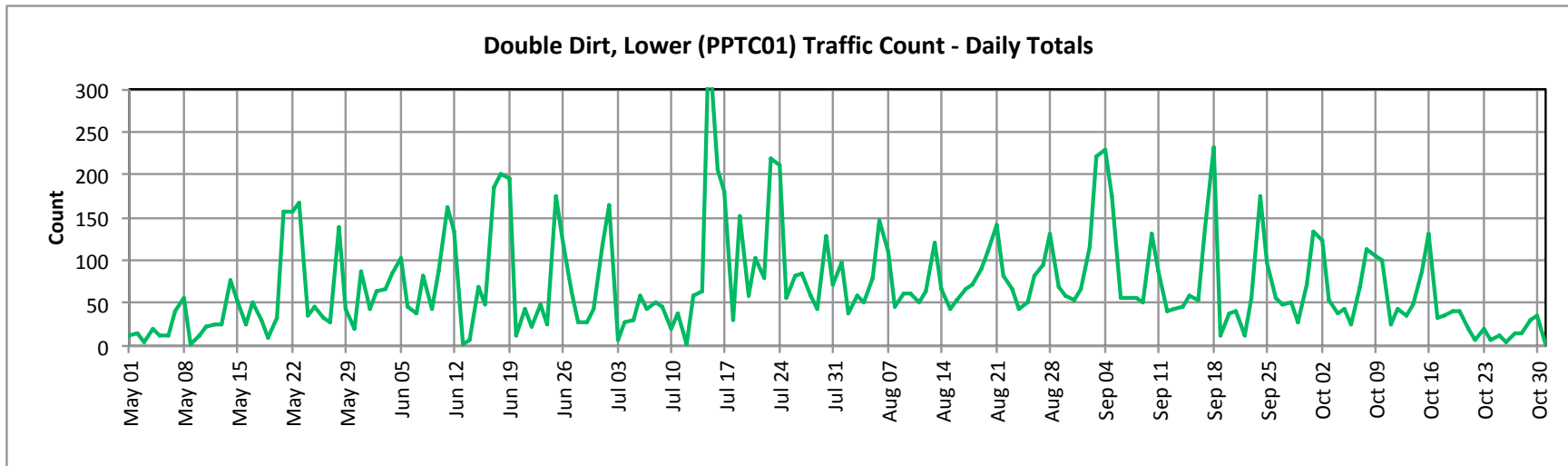


Figure 6

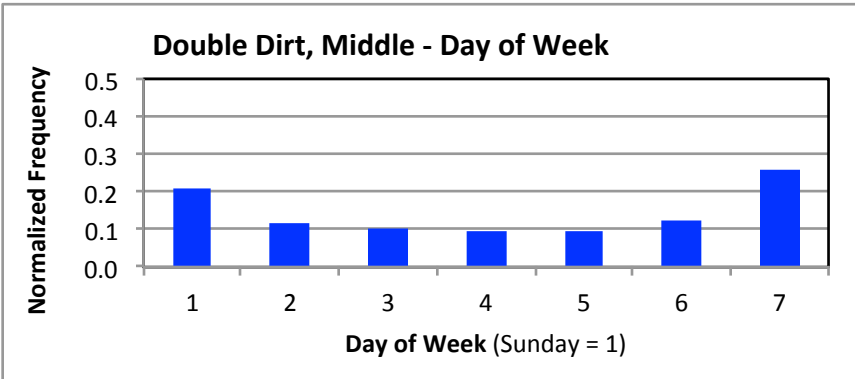


Figure 7

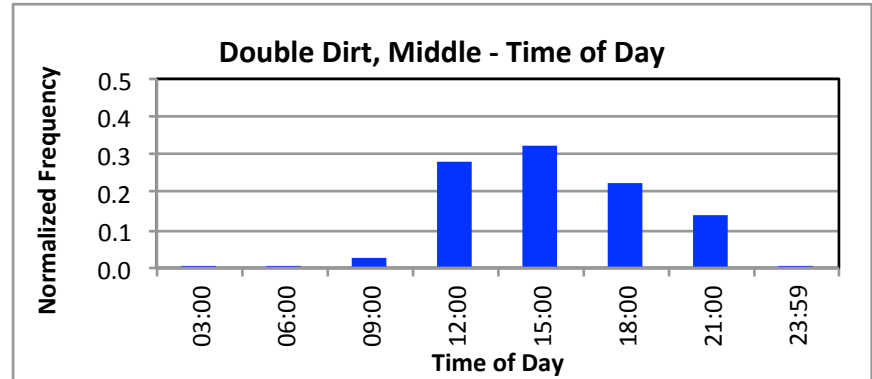


Figure 8

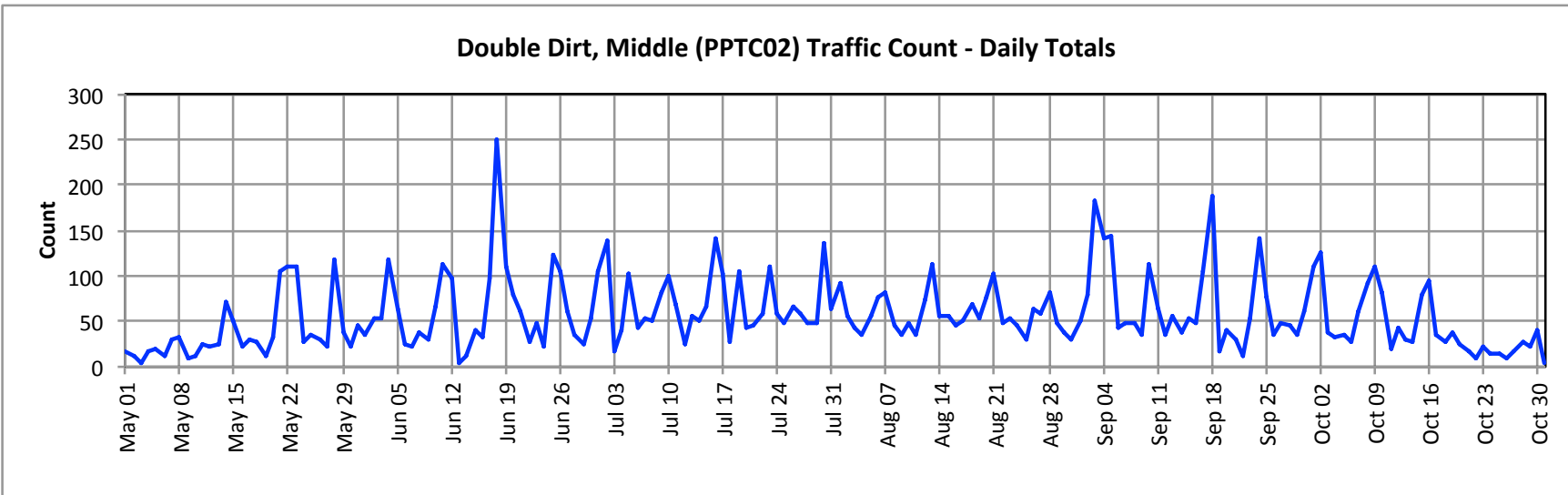


Figure 9



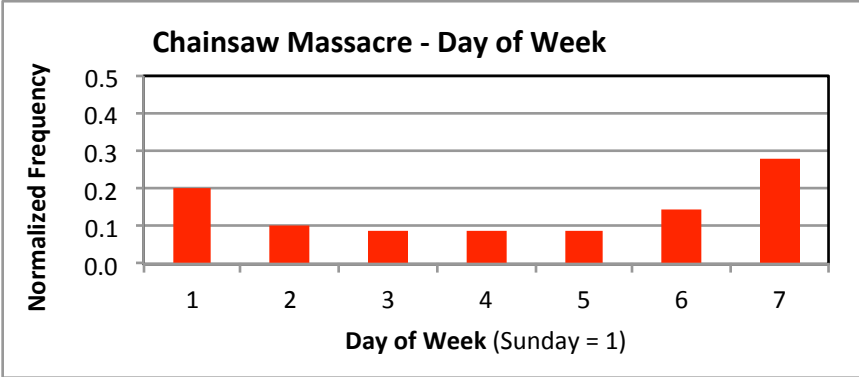


Figure 10

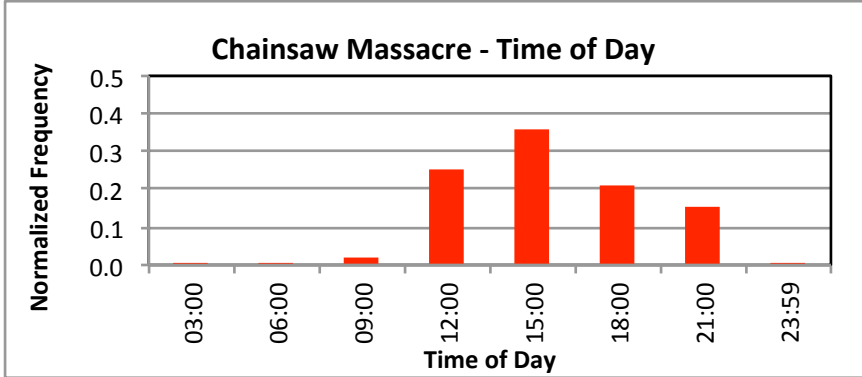


Figure 11

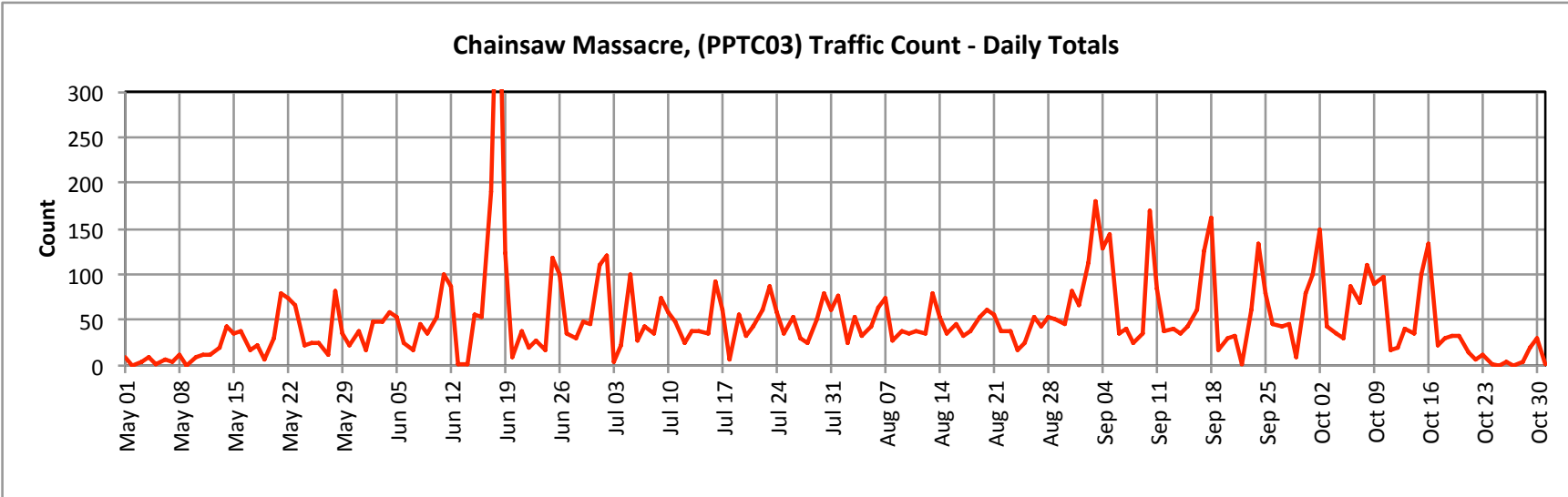


Figure 12

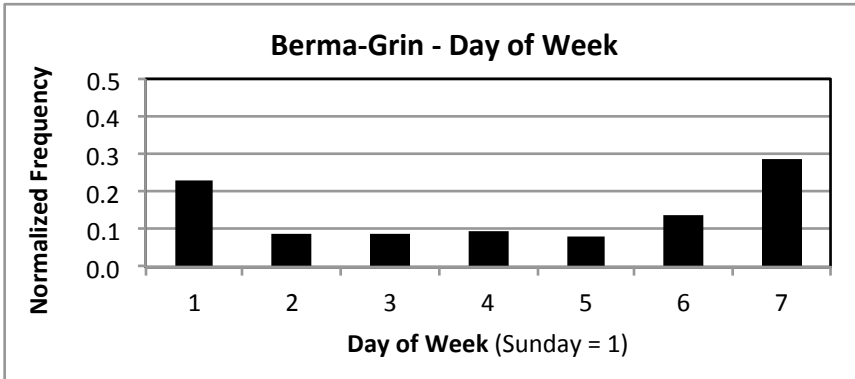


Figure 13

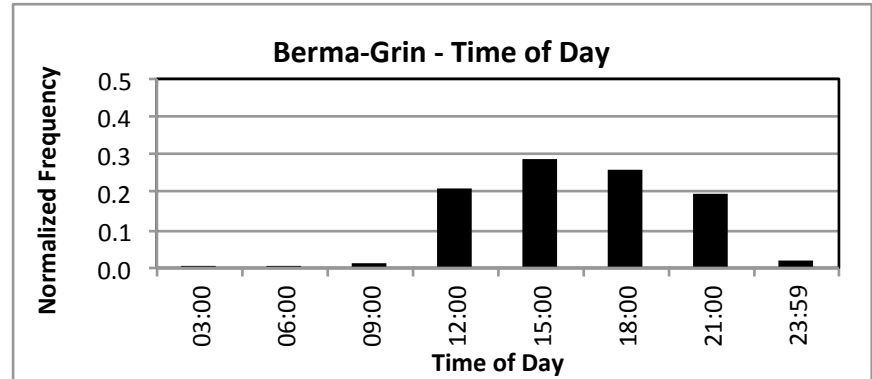


Figure 14

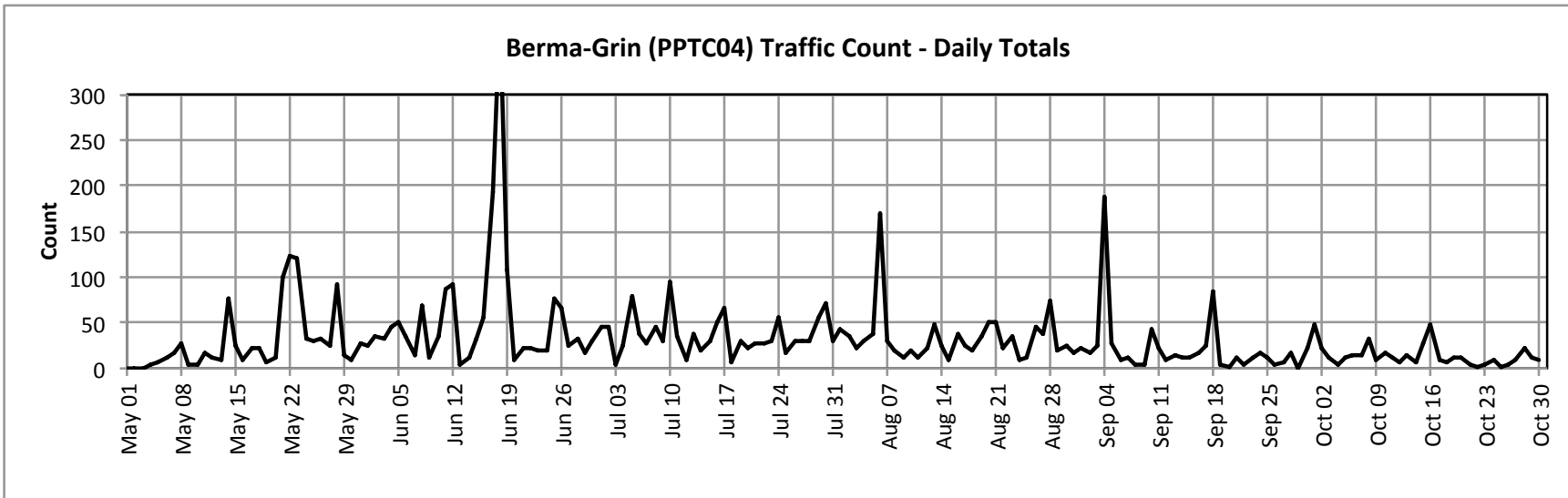


Figure 15

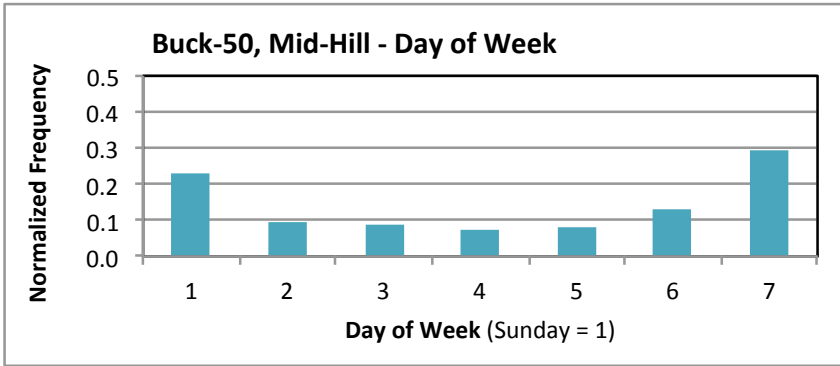


Figure 16

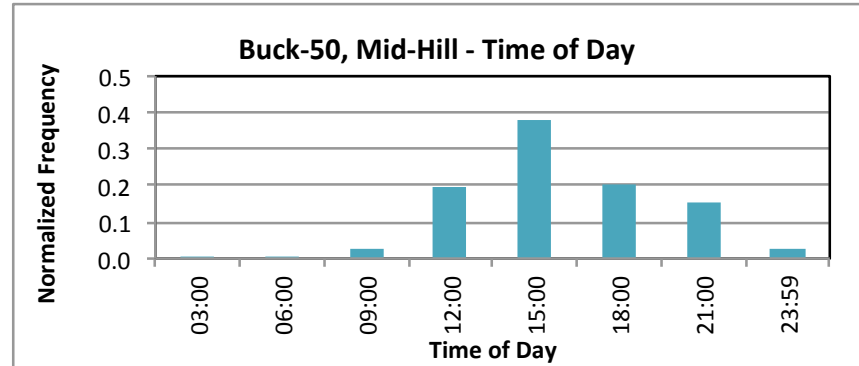


Figure 17

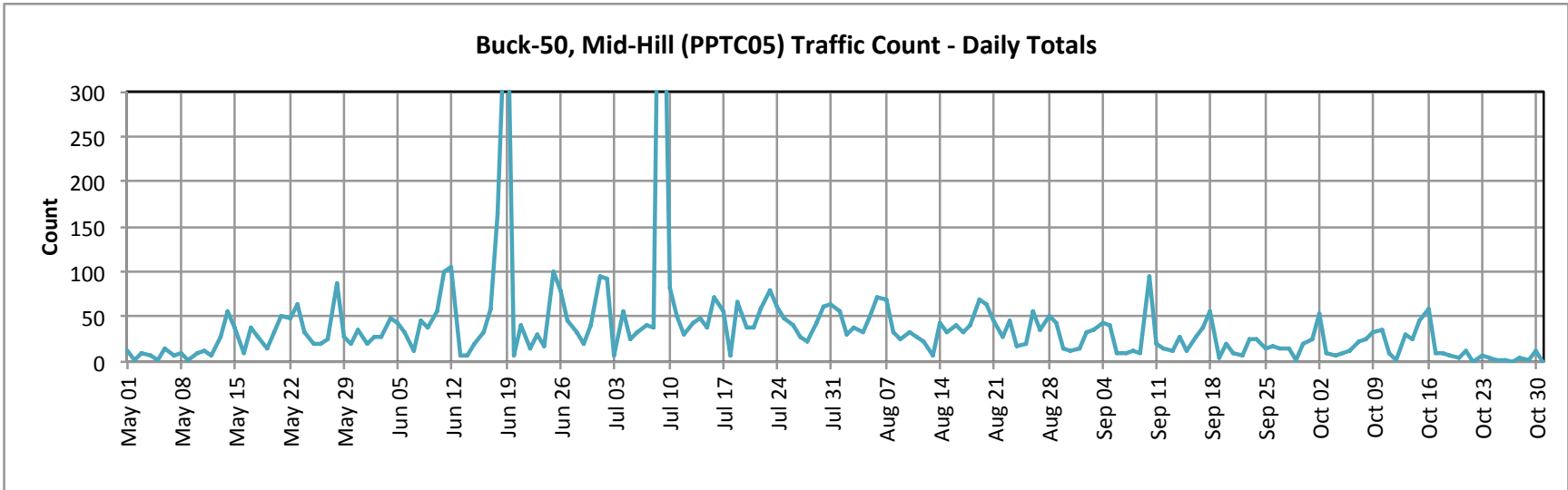


Figure 18

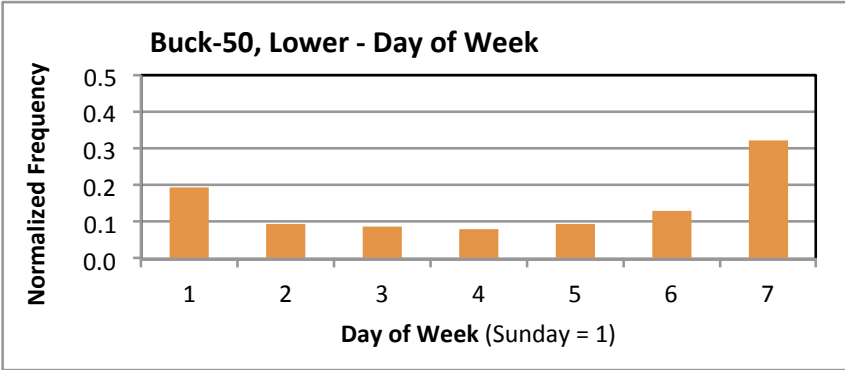


Figure 19

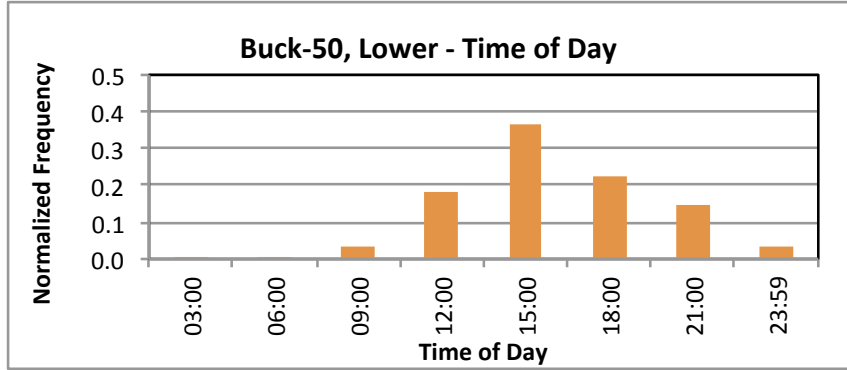


Figure 20

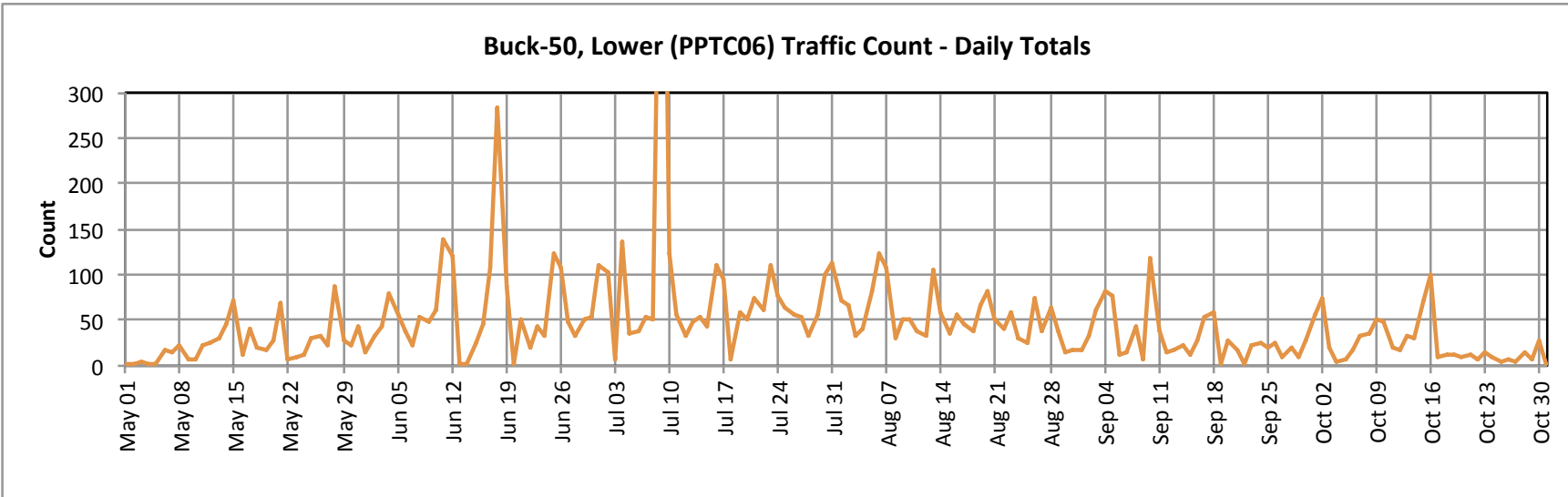
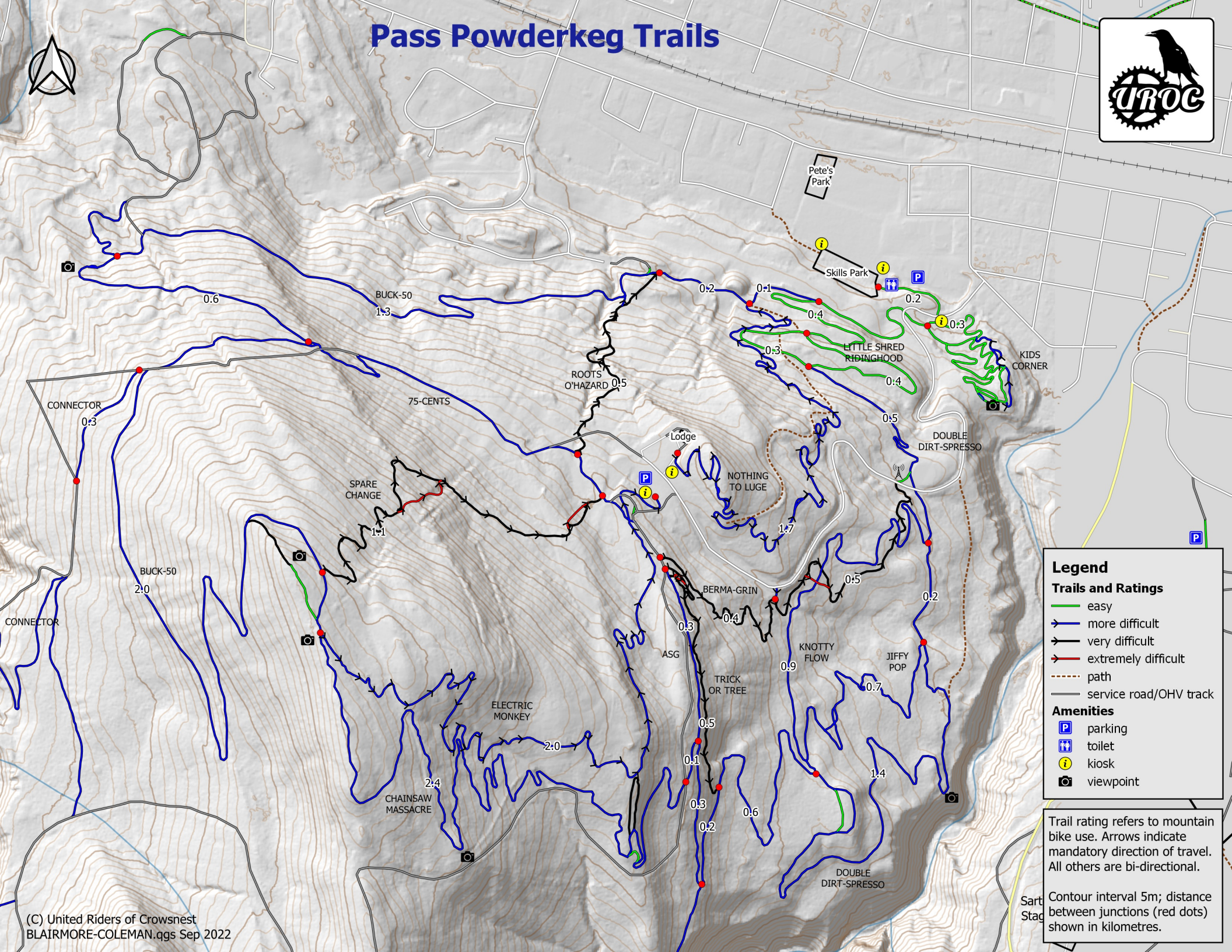


Figure 21

# Pass Powderkeg Trails



**Legend**

**Trails and Ratings**

- easy
- more difficult
- very difficult
- extremely difficult
- - - path
- service road/OHV track

**Amenities**

- parking
- toilet
- kiosk
- viewpoint

Trail rating refers to mountain bike use. Arrows indicate mandatory direction of travel. All others are bi-directional.

Contour interval 5m; distance between junctions (red dots) shown in kilometres.