

APPENDIX B: Ulan Creek

2025 Channel Stability Monitoring - Site Inspection Details

Creek Name: Ulan Creek

Date: 18 September 2025

Monitoring Site: UC08

Coordinates (MGA/Zone 55): 757800.6 (E) 6434755.0 (N)

CISRO Ephemeral Stream Assessment: Active

General Observations: Ulan Creek had water pooling and flowing at this location above LDP6 in 2024. LDP6 discharging into Ulan Creek at the time of the inspection. In 2020, flood debris was recorded above flow line on both the LHB and RHB. The channel bed at the discharge point is formed from bedrock and provides stability at this location. Several meters upstream of LDP6 (the assessment site), the RHB has a moderate slope above, established trees with comparable ground vegetation coverage in 2025 to that observed in 2023 and 2024. The LHB has a gentle slope above with areas of exposed bare ground and is also tree lined. The LHB wall has steep sections (when not covered by water) which are bare and exposed with signs of instability. As in previous years the channel bed assessment in 2025 could not be completed due to water in the creek. Accumulation of flood debris on the bedrock above LDP6 indicating at least one natural flow event has occurred during the monitoring period. Observations in 2025 are comparable to previous monitoring. The CSIRO *Ephemeral Stream Assessment* classification at this location as 'active'.

Notes: In 2025 observations were limited to the LHB and water flowing. The creek bed could not be assessed in 2024. The site appeared potentially stabilising above the water line upstream of LDP6. As a general comment algal discolouration of the bedrock at LPD6 was comparable to 2022, 2023 and 2024.

Upstream 2023



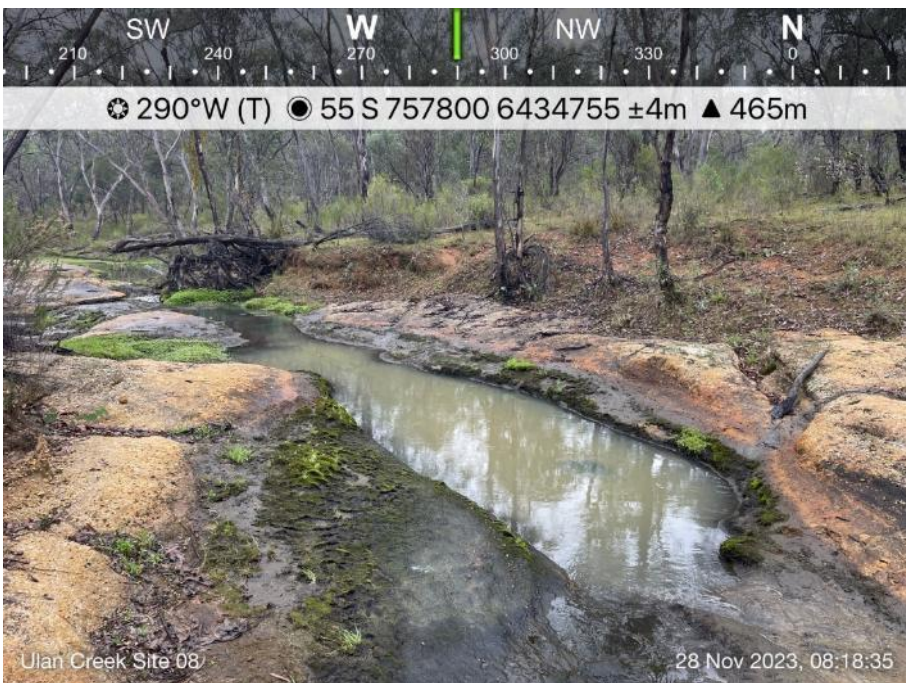
Upstream 2024



Upstream 2025



Downstream 2023



Downstream 2024



Downstream 2025



APPENDIX B: Ulan Creek

2025 Channel Stability Monitoring - Site Inspection Details

Creek Name: Ulan Creek

Date: 18 September 2025

Monitoring Site: UC09

Coordinates (MGA/Zone 55): 757770.2 (E) 6434734.0 (N)

CISRO Ephemeral Stream Assessment: Very Active

General Observations: Ulan Creek had water flowing at this location in 2025. Exposed bedrock is within the floor of the channel, although channel bed assessment in 2025 could not be completed due to water in the creek. A high flow event in the 2020 monitoring period moved the log that was across the channel. In 2020, flood debris was recorded above the banks. In 2022 signs of additional sand and silts deposits were noted just above the water line on the LHB. Signs of instabilities along both banks was observed in 2021 and 2022. The LHB walls are near vertical, exposed with signs of recent erosion. The RHB wall is a more moderate slope and mostly vegetated. Both banks are tree lined with fewer trees along the LHB. The tunnel erosion deep into the RHB, is comparable to previous observations since 2020 and appears to have partially stabilised. An increase of ground vegetation was noted in 2025. The observations in 2025 are comparable with recent years. The CSIRO *Ephemeral Stream Assessment* classification at this location as 'very active'.

Notes: In 2025 observations were limited to the LHB and water flowing. The creek bed could not be assessed. Due to water flows in the creek, slight changes to the location of taking photographs in 2025 were required.

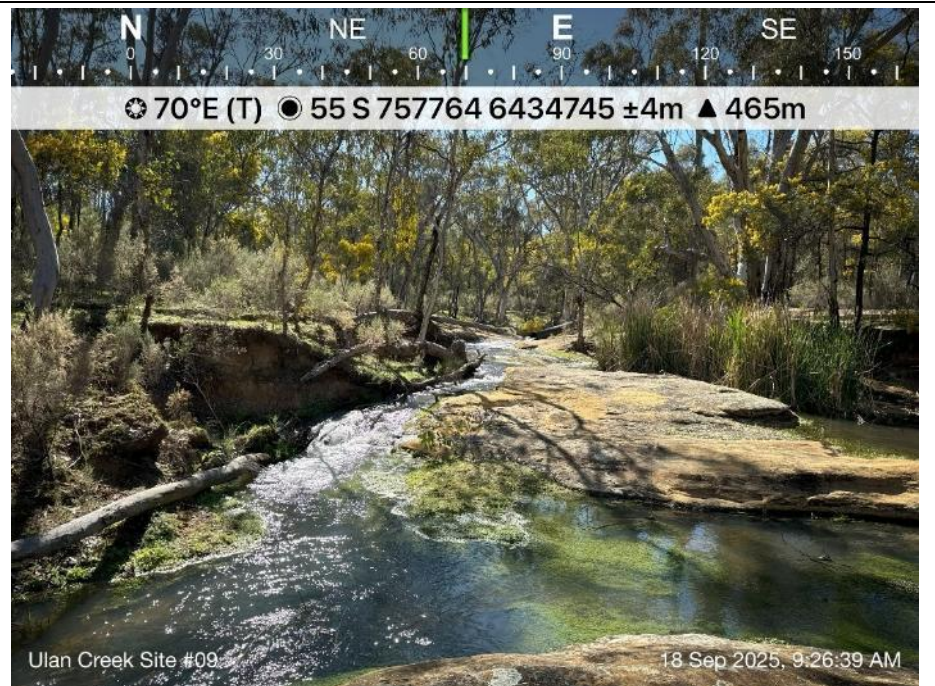
Upstream 2023



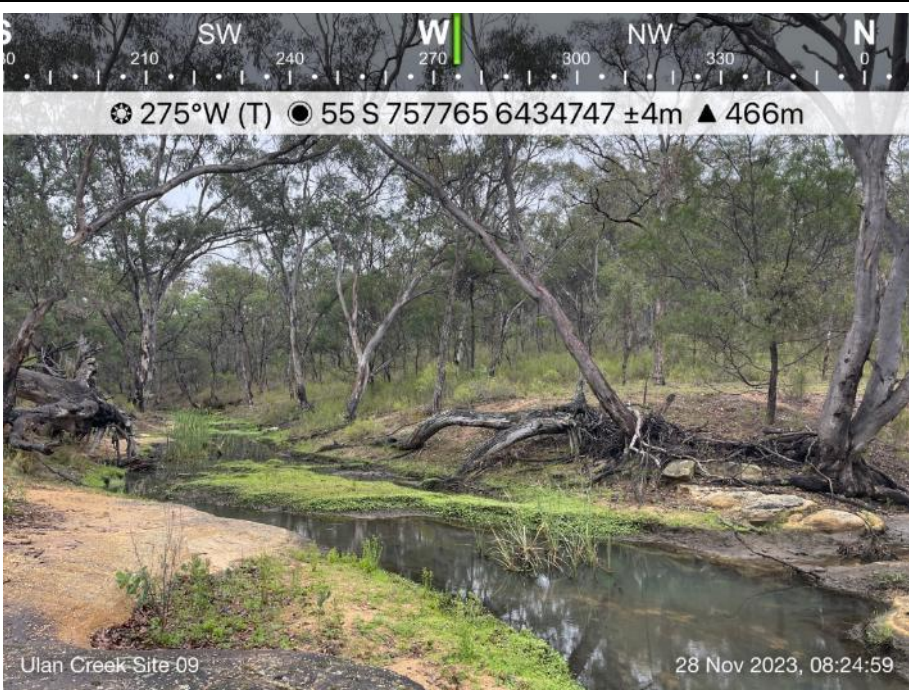
Upstream 2024



Upstream 2025



Downstream 202



Downstream 2024



Downstream 2025



APPENDIX B: Ulan Creek

2025 Channel Stability Monitoring - Site Inspection Details

Creek Name: Ulan Creek

Date: 18 September 2025

Monitoring Site: UC10

Coordinates (MGA/Zone 55): 757647.7 (E) 6434676.0 (N)

CISRO Ephemeral Stream Assessment: Active

General Observations: Ulan Creek had water flowing at this location in 2025. The channel bed assessment in 2025 could not be completed due to water in the creek. From previous monitoring, the creek bed is a mix of silt, sand and small gravel. In 2020, flood debris was located above the LHB with fine sand deposits. Comparable groundcover above the LHB and RHB on previous year. The RHB walls are near vertical, mostly exposed with signs of recent erosion. Tree roots are exposed along the RHB with signs of minor bank undercutting. The LHB is a more moderate slope and was vegetated. Both banks are tree lined. Tree of Heaven was noted along the LHB at this location. Observations in 2025 are comparable to previous monitoring. The CSIRO *Ephemeral Stream Assessment* classification at this location as 'active'.

Notes: In 2025 observations were limited to water flowing and the LHB. The creek bed could not be assessed. This site appeared potentially stabilising above the water line.

Upstream 2023	Upstream 2024	Upstream 2025
W270NW300330N0NE3060E90 ☉ 2°N (T) ● 55 S 757647 6434680 ±4m ▲ 464m  Ulan Creek Site 1028 Nov 2023, 08:29:07	W270NW300330N0NE3060E90 ☉ 4°N (T) ● 55 S 757649 6434677 ±4m ▲ 466m  UC1025 Sep 2024, 8:28:40 AM	W270NW300330N0NE3060E90 ☉ 3°N (T) ● 55 S 757651 6434676 ±4m ▲ 465m  Ulan Creek Site #1018 Sep 2025, 9:34:09 AM
Downstream 2023	Downstream 2024	Downstream 2025
E90SE120150S180SW210240W270 ☉ 175°S (T) ● 55 S 757650 6434677 ±4m ▲ 465m  Ulan Creek Site 1028 Nov 2023, 08:29:21	E90SE120150S180SW210240W270 ☉ 172°S (T) ● 55 S 757651 6434677 ±4m ▲ 466m  UC1025 Sep 2024, 8:28:55 AM	E90SE120150S180SW210240W270 ☉ 183°S (T) ● 55 S 757650 6434677 ±4m ▲ 467m  Ulan Creek Site #1018 Sep 2025, 9:35:09 AM

APPENDIX B: Ulan Creek

2025 Channel Stability Monitoring - Site Inspection Details

Creek Name: Ulan Creek

Date: 18 September 2025

Monitoring Site: UC11

Coordinates (MGA/Zone 55): Stable

CISRO Ephemeral Stream Assessment: 757651.1 (E) 6434633.0 (N)

General Observations: Ulan Creek had water flowing at this location in 2025. Exposed bedrock is within the floor of the channel providing stability, although the channel bed assessment (immediately upstream) in 2025 could not be completed due to water in the creek. Flood debris was located above the LHB in 2020. Comparable groundcover above the LHB and RHB on previous year. The LHB is formed from bedrock with a moderate slope. The RHB has a gentler slope partially vegetated in 2025 with some signs of minor undercutting. Both banks are tree lined. A tree had fallen into the creek from the LHB prior to monitoring in 2021. Observations in 2025 are comparable to previous monitoring. The CSIRO *Ephemeral Stream Assessment* classification at this location as 'stable'.

Notes: In 2025 observations were limited to the LHB and water flowing. This site appeared stable above the water line upstream of the bedrock.

Upstream 2023	Upstream 2024	Upstream 2025
W270NW300330N30NE60E90 359°N (T) 55 S 757648 6434630 ±4m ▲ 463m  Ulan Creek Site 1128 Nov 2023, 08:31:15	W270NW300330N0NE60E 349°N (T) 55 S 757649 6434631 ±6m ▲ 465m  UC1125 Sep 2024, 8:30:04 AM	W270NW300330N0NE60E 353°N (T) 55 S 757651 6434624 ±4m ▲ 466m  Ulan Creek Site #1118 Sep 2025, 9:38:44 AM
Downstream 2023	Downstream 2024	Downstream 2025
SE20S180SW210W270300 214°SW (T) 55 S 757649 6434632 ±4m ▲ 461m  Ulan Creek Site 1128 Nov 2023, 08:31:26	SE150S180SW210W270300 217°SW (T) 55 S 757652 6434630 ±4m ▲ 465m  UC1125 Sep 2024, 8:30:19 AM	SE150S180SW210W270300NV 223°SW (T) 55 S 757652 6434629 ±4m ▲ 465m  Ulan Creek Site #1118 Sep 2025, 9:38:24 AM

2025 Channel Stability Monitoring - Site Inspection Details

Creek Name: Ulan Creek

Date: 18 September 2025

Monitoring Site: UC12

Coordinates (MGA/Zone 55): 757649.4 (E) 6434531.0 (N)

CISRO Ephemeral Stream Assessment: Active

General Observations: Ulan Creek had water flowing at this location in 2025. The channel bed is characterised by gravel size and some larger rock, with signs of increasing vegetation along the low flow channel. Flood debris was located above the LHB in 2020. Increased erosion along the LHB was noted again in 2022. A tree had fallen into the creek from the LHB as noted back in 2020. The LHB wall is near vertical, almost entirely bare, with exposed tree roots, signs of very recent erosion and some minor undercutting. The RHB is a gentler slope, mostly with bare areas and sparse vegetation. Comparable groundcover above the LHB and RHB as previous year. Both sides of the creek are tree lined. An infestation of Tree of Heaven was noted between sites UC11 and UC12. Observations in 2025 are comparable to previous monitoring. The CSIRO *Ephemeral Stream Assessment* classification at this location as 'active'.

Notes: In 2025 observations were limited to the LHB and water flowing.

Upstream 2023	Upstream 2024	Upstream 2025
SWW30NW030 302°NW (T) 55 S 757645 6434546 ±4m ▲ 462m  Ulan Creek Site 1228 Nov 2023, 08:37:22	SWW30NW030 301°NW (T) 55 S 757647 6434545 ±4m ▲ 464m  UC1225 Sep 2024, 8:35:14 AM	SWW30NW030 296°NW (T) 55 S 757648 6434546 ±4m ▲ 463m  Ulan Creek Site #1218 Sep 2025, 9:43:06 AM
Downstream 2023	Downstream 2024	Downstream 2025
E90SE120150180210240 167°S (T) 55 S 757645 6434551 ±4m ▲ 462m  Ulan Creek Site 1228 Nov 2023, 08:36:41	E90SE120150180210240 171°S (T) 55 S 757646 6434548 ±4m ▲ 464m  UC1225 Sep 2024, 8:33:59 AM	SE120150180210240270 190°S (T) 55 S 757646 6434549 ±4m ▲ 465m  Ulan Creek Site #1218 Sep 2025, 9:42:37 AM

2025 Channel Stability Monitoring - Site Inspection Details

Creek Name: Ulan Creek

Date: 18 September 2025

Monitoring Site: UC13

Coordinates (MGA/Zone 55): 757621.8 (E) 6434447.0 (N)

CISRO Ephemeral Stream Assessment: Active

General Observations: Ulan Creek had water flowing at this location in 2025. From previous monitoring, the channel bed is a mix of silt, sand and gravel. In 2022 additional sand and sediments had deposited along the creek bed with little vegetation. Flood debris was located above the LHB in 2020. Active erosion along both banks was again observed in 2022. The LHB and RHB walls are near vertical, bare with exposed tree roots, signs of erosion and undercutting. Both sides of the creek are tree lined. Comparable groundcover above the LHB and RHB as in previous year. Observations in 2025 are comparable to previous monitoring. The CSIRO *Ephemeral Stream Assessment* classification at this location as 'active'.

Notes: In 2025 observations were limited to the LHB and water flowing. The creek bed could not be assessed.

Upstream 2023	Upstream 2024	Upstream 2025
NW0300330N0306090E ☀️ 10°N (T) 🌐 55 S 757628 6434447 ±4m ▲ 464m  Ulan Creek Site 1328 Nov 2023, 08:41:13	W70NW300330N0306090E ☀️ 4°N (T) 🌐 55 S 757632 6434444 ±4m ▲ 465m  UC1325 Sep 2024, 8:40:44 AM	W270NW300330N0306090E ☀️ 0°N (T) 🌐 55 S 757630 6434445 ±4m ▲ 464m  Ulan Creek Site #1318 Sep 2025, 9:49:56 AM
Downstream 2023	Downstream 2024	Downstream 2025
S180SW210240W270NW300330 ☀️ 253°W (T) 🌐 55 S 757633 6434454 ±4m ▲ 458m  Ulan Creek Site 1328 Nov 2023, 08:40:50	S180SW210240W270NW300330 ☀️ 248°W (T) 🌐 55 S 757636 6434456 ±5m ▲ 465m  UC1325 Sep 2024, 8:39:52 AM	S180SW210240W270NW300330 ☀️ 258°W (T) 🌐 55 S 757634 6434455 ±4m ▲ 464m  Ulan Creek Site #1318 Sep 2025, 9:49:31 AM

2025 Channel Stability Monitoring - Site Inspection Details

Creek Name: Ulan Creek

Date: 18 September 2025

Monitoring Site: UC14

Coordinates (MGA/Zone 55): 757522.5 (E) 6434327.0 (N)

CISRO Ephemeral Stream Assessment: Active

General Observations: Ulan Creek was flowing at this location in 2025. Active erosion along both banks was observed in 2022. From previous monitoring, the channel bed is a mix of silt, sand and smaller gravel. In 2022 additional build up of sand, silt and small gravel deposits were noted. Flood debris was located above the LHB in 2020. Increased erosion along both the LHB and RHB with undercutting more notable under the top edge of the banks in 2022. The LHB and RHB have near vertical walls from the top of the bank, bare with exposed tree roots and with signs of erosion. Comparable groundcover above the LHB and RHB as previous year. Both sides of the creek are tree lined. Observations in 2025 are comparable to previous monitoring. The CSIRO *Ephemeral Stream Assessment* classification at this location as 'active'

Notes: In 2025 observations were limited to the LHB and water flowing.

Upstream 2023	Upstream 2024	Upstream 2025
W270NW300330NE306090E 0°N (T) 55 S 757515 6434311 ±4m ▲ 462m A photograph showing a small, shallow creek flowing through a wooded area. The banks are eroded, with exposed tree roots and fallen branches. The water is brown and reflects the surrounding trees. The photo is taken from a low angle, looking down the creek. Ulan Creek Site 1428 Nov 2023, 08:50:28	W270NW300330N0306090E 356°N (T) 55 S 757518 6434312 ±4m ▲ 464m A photograph showing a small, shallow creek flowing through a wooded area. The banks are eroded, with exposed tree roots and fallen branches. The water is brown and reflects the surrounding trees. The photo is taken from a low angle, looking down the creek. UC1425 Sep 2024, 8:48:24 AM	W270NW300330N0306090E 346°N (T) 55 S 757517 6434313 ±4m ▲ 462m A photograph showing a small, shallow creek flowing through a wooded area. The banks are eroded, with exposed tree roots and fallen branches. The water is brown and reflects the surrounding trees. The photo is taken from a low angle, looking down the creek. Ulan Creek Site #1418 Sep 2025, 10:02:00 AM
Downstream 2023	Downstream 2024	Downstream 2025
E150S180SW210240270300NW 230°SW (T) 55 S 757519 6434317 ±4m ▲ 462m A photograph showing a small, shallow creek flowing through a wooded area. The banks are eroded, with exposed tree roots and fallen branches. The water is brown and reflects the surrounding trees. The photo is taken from a low angle, looking down the creek. Ulan Creek Site 1428 Nov 2023, 08:50:09	SE150S180SW210240270300NW 224°SW (T) 55 S 757520 6434318 ±4m ▲ 464m A photograph showing a small, shallow creek flowing through a wooded area. The banks are eroded, with exposed tree roots and fallen branches. The water is brown and reflects the surrounding trees. The photo is taken from a low angle, looking down the creek. UC1425 Sep 2024, 8:48:07 AM	S150SW18040W270300330NW 238°SW (T) 55 S 757518 6434316 ±4m ▲ 463m A photograph showing a small, shallow creek flowing through a wooded area. The banks are eroded, with exposed tree roots and fallen branches. The water is brown and reflects the surrounding trees. The photo is taken from a low angle, looking down the creek. Ulan Creek Site #1418 Sep 2025, 10:01:19 AM

APPENDIX B: Ulan Creek

2025 Channel Stability Monitoring - Site Inspection Details

Creek Name: Ulan Creek

Date: 18 September 2025

Monitoring Site: UC15

Coordinates (MGA/Zone 55): 757408.6 (E) 6434095.0 (N)

CISRO Ephemeral Stream Assessment: Active

General Observations: Ulan Creek was flowing at this location in 2025. Active erosion along both banks was observed in 2022. From previous monitoring, the channel bed is a mix of silt, sand and gravel. In 2022 additional build-up of sand, silt and small gravel deposits were noted. The LHB and RHB have near vertical walls from the top of the bank, bare with exposed tree roots, with signs of erosion and bank undercutting. Comparable groundcover above the LHB and RHB as previous year. Both sides of the creek are tree lined. Observations in 2025 are comparable to previous monitoring. The CSIRO *Ephemeral Stream Assessment* classification at this location as 'active'.

Notes: In 2025 observations were limited to the LHB and water flowing.

Upstream 2023	Upstream 2024	Upstream 2025
W270NW300330N0NE3060 ☀ 354°N (T) ● 55 S 757412 6434107 ±4m ▲ 462m A photograph of a narrow, shallow creek flowing through a forest. The water is clear, and the banks are covered in green moss and fallen leaves. The trees are mostly eucalyptus. Ulan Creek Site 1528 Nov 2023, 08:57:32	W270NW300330N0NE3060 ☀ 354°N (T) ● 55 S 757415 6434105 ±4m ▲ 462m A photograph of a narrow, shallow creek flowing through a forest. The water is clear, and the banks are covered in green moss and fallen leaves. The trees are mostly eucalyptus. UC1525 Sep 2024, 9:02:14 AM	NW300330N0NE3060E90120 ☀ 28°NE (T) ● 55 S 757412 6434104 ±4m ▲ 462m A photograph of a narrow, shallow creek flowing through a forest. The water is clear, and the banks are covered in green moss and fallen leaves. The trees are mostly eucalyptus. Ulan Creek Site#1518 Sep 2025, 10:36:52 AM
Downstream 2023	Downstream 2024	Downstream 2025
S180SW240W270NW300330 ☀ 248°SW (T) ● 55 S 757416 6434112 ±4m ▲ 461m A photograph of a narrow, shallow creek flowing through a forest. The water is clear, and the banks are covered in green moss and fallen leaves. The trees are mostly eucalyptus. Ulan Creek Site 1528 Nov 2023, 08:58:05	E150S180SW240W270NW300330 ☀ 231°SW (T) ● 55 S 757418 6434110 ±4m ▲ 462m A photograph of a narrow, shallow creek flowing through a forest. The water is clear, and the banks are covered in green moss and fallen leaves. The trees are mostly eucalyptus. UC1525 Sep 2024, 9:01:39 AM	E150S180SW240W270NW300330 ☀ 230°SW (T) ● 55 S 757411 6434105 ±4m ▲ 463m A photograph of a narrow, shallow creek flowing through a forest. The water is clear, and the banks are covered in green moss and fallen leaves. The trees are mostly eucalyptus. Ulan Creek Site#1518 Sep 2025, 10:37:18 AM

APPENDIX B: Ulan Creek

2025 Channel Stability Monitoring - Site Inspection Details

Creek Name: Ulan Creek

Date: 18 September 2025

Monitoring Site: UC16

Coordinates (MGA/Zone 55): 757495.4 (E) 6433929.0 (N)

CISRO Ephemeral Stream Assessment: Active

General Observations: Ulan Creek had water flowing at this location in 2025. Active erosion along both banks was observed again in 2022. A tree had also fallen into the creek sometime after the 2019 inspection. In 2022 additional gravel, silt and sand deposits had accumulated but less obvious than in previous years. The LHB and RHB have near vertical walls from the top of the bank, mostly bare with exposed tree roots and signs of erosion. An old concrete pipe culvert remains upstream from the site. Comparable groundcover above the LHB and RHB as previous year. Both sides of the creek are tree lined. Observations in 2025 are comparable to previous monitoring. The CSIRO *Ephemeral Stream Assessment* classification at this location as 'active'.

Notes: In 2025 observations were limited to the RHB and water flowing.

Upstream 2023	Upstream 2024	Upstream 2025
NW N NE E 300 330 0 60 90 120 ☼ 30°NE (T) ● 55 S 757494 6433928 ±4m ▲ 459m  Ulan Creek Site 1628 Nov 2023, 09:08:55	NW N NE E 330 0 30 60 90 120 ☼ 38°NE (T) ● 55 S 757494 6433932 ±4m ▲ 459m  UC1625 Sep 2024, 9:09:00 AM	NW N NE E 300 330 0 60 90 120 ☼ 29°NE (T) ● 55 S 757495 6433933 ±4m ▲ 457m  Ulan Creek Site#1618 Sep 2025, 10:44:44 AM
Downstream 2023	Downstream 2024	Downstream 2025
E SE S SW 90 120 150 180 210 240 ☼ 174°S (T) ● 55 S 757495 6433937 ±4m ▲ 458m  Ulan Creek Site 1628 Nov 2023, 09:09:19	E SE S SW 90 120 150 180 210 240 ☼ 174°S (T) ● 55 S 757496 6433935 ±4m ▲ 460m  UC1625 Sep 2024, 9:08:44 AM	E SE S SW 90 120 150 180 210 240 ☼ 159°S (T) ● 55 S 757499 6433941 ±5m ▲ 459m  Ulan Creek Site#1618 Sep 2025, 10:44:05 AM

APPENDIX B: Ulan Creek

2025 Channel Stability Monitoring - Site Inspection Details

Creek Name: Ulan Creek

Date: 18 September 2025

Monitoring Site: UC17

Coordinates (MGA/Zone 55): 757510.9 (E) 6433763.0 (N)

CISRO Ephemeral Stream Assessment: Active

General Observations: Ulan Creek had water flowing at this location in 2025. Water was seeping into the creek along the LHB from an entering drainage line in 2021. The low flow channel bed had no vegetation and was a mix of silt, sand, gravel and larger rock material noted. In 2022 additional build up of sand, silt and small gravel deposits were noted. The LHB wall is near vertical, bare with exposed tree roots and signs of active slumping. Undercutting also observed along the LHB in 2022. The RHB is a gentler slope, mostly with bare areas and no vegetation. Comparable groundcover above the LHB and RHB as previous year. Both sides of the creek are tree lined. Observations in 2025 are comparable to previous monitoring. The CSIRO *Ephemeral Stream Assessment* classification at this location as 'active'.

Notes: In 2025 observations were limited to the RHB and water flowing.

Upstream 2023	Upstream 2024	Upstream 2025
W270NW330N0NE60E90 ☀ 357°N (T) ● 55 S 757511 6433761 ±4m ▲ 459m  Ulan Creek Site 1728 Nov 2023, 09:16:18	W270NW330N0NE60E90 ☀ 355°N (T) ● 55 S 757512 6433757 ±4m ▲ 459m  UC1725 Sep 2024, 9:14:55 AM	W270NW330N0NE60E90 ☀ 6°N (T) ● 55 S 757512 6433758 ±4m ▲ 458m  Ulan Creek Site#1718 Sep 2025, 10:51:46 AM
Downstream 2023	Downstream 2024	Downstream 2025
E60SE90S120SW210240 ☀ 151°SE (T) ● 55 S 757510 6433766 ±4m ▲ 460m  Ulan Creek Site 1728 Nov 2023, 09:15:52	E60SE90S120SW210240 ☀ 145°SE (T) ● 55 S 757509 6433762 ±4m ▲ 460m  UC1725 Sep 2024, 9:14:00 AM	NE60E90SE120S180SW210240 ☀ 131°SE (T) ● 55 S 757511 6433764 ±4m ▲ 459m  Ulan Creek Site#1718 Sep 2025, 10:51:22 AM

APPENDIX B: Ulan Creek

2025 Channel Stability Monitoring - Site Inspection Details

Creek Name: Ulan Creek

Date: 18 September 2025

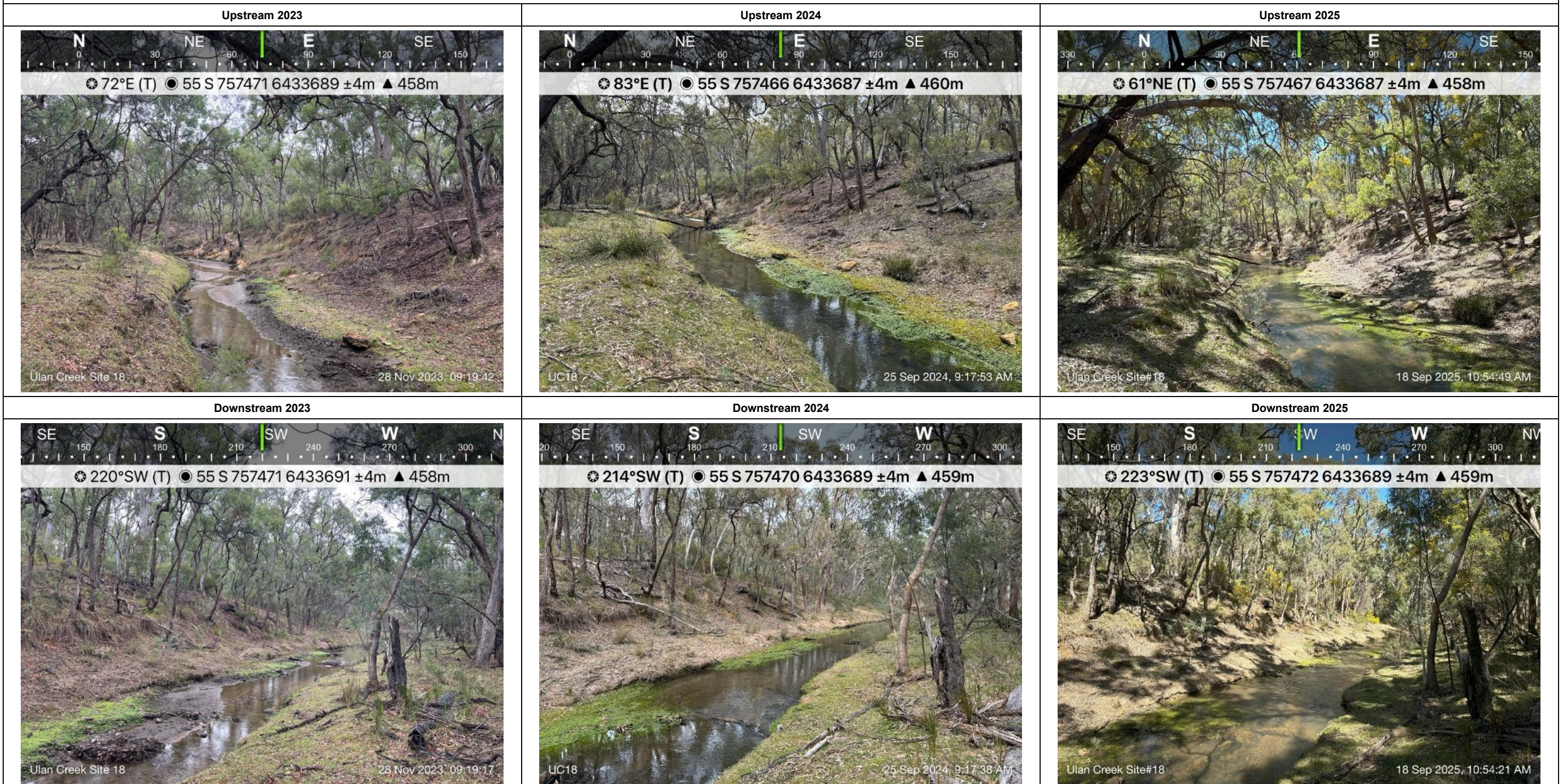
Monitoring Site: UC18

Coordinates (MGA/Zone 55): 757473.7 (E) 6433691.0 (N)

CISRO Ephemeral Stream Assessment: Potentially Stabilising

General Observations: Ulan Creek had water flowing at this location in 2025. Inflows into the creek were noted at this location in 2020. Continued undercutting (albeit minor) along the RHB was observed in 2021 and 2022. Silt, sand, small gravel and larger rocks noted in the channel bed. An increasing layer of silt sediments deposited within the low flow channel bed was noted in 2019. Flood debris and sand deposits were identified above the RHB in 2020. The RHB has a low slope with decreasing ground cover vegetation in 2025. The LHB wall is a steeper slope and partially vegetated in 2024. Comparable groundcover above the LHB and RHB as previous year. Both sides of the creek are tree lined. Observations in 2024 are comparable to previous monitoring. The CSIRO *Ephemeral Stream Assessment* classification at this location as 'potentially stabilising'.

Notes: In 2025 observations were limited to the RHB and water flowing



2025 Channel Stability Monitoring - Site Inspection Details

Creek Name: Ulan Creek

Date: 18 September 2025

Monitoring Site: UC19

Coordinates (MGA/Zone 55): 757372.3 (E) 6433508.0 (N)

CISRO Ephemeral Stream Assessment: Active

General Observations: Ulan Creek was flowing at this location in 2025. The channel bed had little to no vegetation and is a mix of silt, sand, small gravel and rock material. In 2022 additional build up of sand, silt and small gravel deposits was noted. Sand deposits were noted above the RHB in 2020. The small fallen tree observed in the channel bed in 2022 has been transported further downstream in 2023 to Site 20a. The establishment of a Common Rush (*Juncus* spp) since 2019 on the RHB with increasing density in 2021 and 2022 but appears to be going through a 'dieback' phase. Both the LHB and RHB have a moderate to steep slope and remain generally well vegetated. The LHB downstream displays recent signs of undercutting. A small section of the RHB had slumped into the flow channel in 2022. Comparable groundcover above the LHB and RHB as previous year. Both sides of the creek are tree lined. Observations in 2025 are comparable to previous monitoring. The CSIRO *Ephemeral Stream Assessment* classification at this location as 'active'.

Notes: In 2025 observations were limited to the RHB and water flowing.

Upstream 2023	Upstream 2024	Upstream 2025
NW N NE E 300 330 0 60 90 120 ☀ 29°NE (T) ● 55 S 757370 6433513 ±4m ▲ 457m  Ulan Creek Site 1928 Nov 2023, 09:31:55	NW N NE E 0 330 0 30 60 90 120 ☀ 36°NE (T) ● 55 S 757368 6433511 ±4m ▲ 458m  UC1925 Sep 2024, 9:29:26 AM	NW N NE E 300 330 0 30 60 90 120 ☀ 24°NE (T) ● 55 S 757370 6433510 ±4m ▲ 456m  Ulan Creek Site#1918 Sep 2025, 11:03:05 AM
Downstream 2023	Downstream 2024	Downstream 2025
E SE S SW 90 120 150 180 210 240 ☀ 167°S (T) ● 55 S 757370 6433512 ±4m ▲ 458m  Ulan Creek Site 1928 Nov 2023, 09:31:01	E SE S SW 90 120 150 180 210 240 ☀ 170°S (T) ● 55 S 757368 6433513 ±4m ▲ 459m  UC1925 Sep 2024, 9:29:02 AM	E SE S SW V 90 120 150 180 210 240 270 ☀ 176°S (T) ● 55 S 757370 6433513 ±4m ▲ 458m  Ulan Creek Site#1918 Sep 2025, 11:02:45 AM

2025 Channel Stability Monitoring - Site Inspection Details

Creek Name: Ulan Creek

Date: 18 September 2025

Monitoring Site: UC20a

Coordinates (MGA/Zone 55): 757348.6 (E) 6433349.0 (N)

CISRO Ephemeral Stream Assessment: Very Active

General Observations: Ulan Creek had water flowing at this location in 2024. Active erosion along both banks was again observed. Accumulation of flood debris was observed in 2020 caught up around the dead tree located in the middle of the flow line. The flow channel bed had little to no vegetation and is a mix of silt, sand and small gravel material. In 2022 additional build up of sand, silt and small gravel deposits were noted. Both the LHB and RHB have a moderate slope above the channel and were well vegetated. Both banks display recent signs slumping and bank undercutting, in particular the RHB has significant active erosion. A tree has fallen along the edge of the RHB in 2022. Since 2015 the channel width at this location has increased. Comparable groundcover above the LHB and RHB as previous year. Both sides of the creek are tree lined. Observations in 2025 are comparable to previous monitoring*. The CSIRO *Ephemeral Stream Assessment* classification at this location as 'very active'.

Notes: In 2025 observations were limited to the LHB and water flowing. *The increased erosion on the RHB exposing >1m of wall height decreased the 2022 score. Additional flood debris build up noted in 2023.

Upstream 2023	Upstream 2024	Upstream 2025
 Ulan Creek Site 20a 28 Nov 2023 09:38:03	 UC20a 25 Sep 2024 9:34:08 AM	 Ulan Creek Site#20a 18 Sep 2025 11:08:53 AM
Downstream 2023	Downstream 2024	Downstream 2025
 Ulan Creek Site 20a 28 Nov 2023 09:35:56	 UC20a 25 Sep 2024 9:33:14 AM	 Ulan Creek Site#20a 18 Sep 2025 11:08:02 AM

2025 Channel Stability Monitoring - Site Inspection Details

Creek Name: Ulan Creek

Date: 18 September 2025

Monitoring Site: UC20b

Coordinates (MGA/Zone 55): 757339.7 (E) 6433297.0 (N)

CISRO Ephemeral Stream Assessment: Very Active

General Observations: Ulan Creek had flowing at this location in 2025. Active erosion along both banks was again observed. The flow channel bed had little to no vegetation. Silt, sand and small gravel size rock material was noted in the channel bed. Significant loss of a bank material and widening of the flow channel observed in 2020. Sand deposits above the flow line along the RHB noted in 2020. In 2022 additional build up of sand, silt and small gravel deposits were noted. The channel bed contains much larger foreign rock placed in the creek at some point, to possibly stabilise the creek (a portion of the RHB displays stability due to the rock armouring), however it appears to be having a more destabilising impact. Both the LHB and RHB have a moderate slope above the bank. The banks walls are sparsely vegetated, display recent signs of slumping, bank undercutting and causing a widening of the creek (particularly along the LHB). Comparable groundcover above the LHB and RHB as previous year. Both sides are tree lined. Observations in 2025 noted a similar deteriorating trend when compared to previous monitoring*. The CSIRO *Ephemeral Stream Assessment* classification at this location as 'very active'.

Notes: In 2025 observations were limited to the LHB and water flowing. *The increased erosion on the LHB exposing >1m of wall height decreased the 2022 score.Loss of bed/bank material since 2022 monitoring.

Upstream 2023	Upstream 2024	Upstream 2025
NW0300330N0306090NEE ☀ 9°N (T) ● 55 S 757340 6433294 ±4m ▲ 455m Loss of bed/bank material since 2022 monitoring  Ulan Creek Site 20b28 Nov 2023, 09:41:01 NW0300330N0306090NEE ☀ 16°N (T) ● 55 S 757340 6433296 ±4m ▲ 456m  UC20b25 Sep 2024, 9:37:18 AM NW0300330N0306090NEE ☀ 9°N (T) ● 55 S 757341 6433297 ±4m ▲ 455m  Ulan Creek Site#20b18 Sep 2025, 11:11:02 AM		
Downstream 2023	Downstream 2024	Downstream 2025
E90120SE150180210240SW ☀ 173°S (T) ● 55 S 757335 6433306 ±4m ▲ 455m  Ulan Creek Site 20b28 Nov 2023, 09:39:46 E90120SE150180210240SW ☀ 159°S (T) ● 55 S 757338 6433306 ±4m ▲ 456m  UC20b25 Sep 2024, 9:36:46 AM E90120SE150180210240SW ☀ 162°S (T) ● 55 S 757339 6433312 ±4m ▲ 455m  Ulan Creek Site#20b18 Sep 2025, 11:10:26 AM		

APPENDIX B: Ulan Creek

2025 Channel Stability Monitoring - Site Inspection Details

Creek Name: Ulan Creek

Date: 18 September 2025

Monitoring Site: UC21

Coordinates (MGA/Zone 55): 757289 (E) 6433168 (N)

CISRO Ephemeral Stream Assessment: Active

General Observations: Ulan Creek had water flowing at this location in 2025. Water was seeping from the LHB into the channel in 2022. Active erosion along both banks was again observed. The flow channel bed had little to no vegetation and is a mix of sand, small size gravel and rock material. Decrease of vegetation above the banks. Both the LHB and RHB have a moderate slope. Both banks have exposed bare areas and display recent signs of erosion. The RHB has near vertical sections with bank undercutting. The LHB displayed bank undercutting in 2021 although in 2022 additional build up of sand, silt and small gravel deposits had infilled. The formation of small scour holes in 2019 appeared to have been infilled since 2020. Comparable groundcover above the LHB and RHB as previous year. Both sides of the creek are tree lined. Observations in 2025 are comparable to previous monitoring. The CSIRO *Ephemeral Stream Assessment* classification at this location as 'active'.

Notes: In 2025 observations were limited to the RHB and water flowing. One tree upstream and another tree downstream had fallen across the creek from the RHB since 2022 monitoring.

Upstream 2023



Upstream 2024



Upstream 2025



Downstream 2023



Downstream 2024



Downstream 2025



2025 Channel Stability Monitoring - Site Inspection Details

Creek Name: Ulan Creek

Date: 18 September 2025

Monitoring Site: UC22

Coordinates (MGA/Zone 55): 757246 (E) 6433127 (N)

CISRO Ephemeral Stream Assessment: Active

General Observations: Ulan Creek had water flowing at this location in 2025. Active erosion along both banks was again observed in 2022. The flow channel bed had little to no vegetation and is a mix of silt, sand, small size gravel and rock material. In 2022 additional build up of sand, silt and small gravel deposits was noted. Decrease of vegetation above the banks. A small scour in the channel bed forming in 2019 was infilled in 2020. Both the LHB and RHB have a moderate slope above the bank. Both bank walls are exposed and display recent signs of erosion. The RHB has a near vertical lower section with ongoing bank undercutting. The LHB also displays signs of bank undercutting. Comparable groundcover above the LHB and RHB as previous year. Both sides of the creek are tree lined. Observations in 2025 are comparable to previous monitoring. The CSIRO *Ephemeral Stream Assessment* classification at this location as 'active'.

Notes: In 2025 observations were limited to the RHB and water flowing.

Upstream 2023	Upstream 2024	Upstream 2025
W3300306090120SE 50°NE (T) 55 S 757241 6433115 ±4m ▲ 455m  Ulan Creek Site 2228 Nov 2023, 09:53:45	W3300306090120SE 50°NE (T) 55 S 757239 6433116 ±4m ▲ 456m  UC2225 Sep 2024, 9:44:47 AM	W3300306090120SE 51°NE (T) 55 S 757243 6433117 ±4m ▲ 456m  Ulan Creek Site#2218 Sep 2025, 11:20:41 AM
Downstream 2023	Downstream 2024	Downstream 2025
SE120150180210240270W 198°S (T) 55 S 757241 6433114 ±4m ▲ 455m  Ulan Creek Site 2228 Nov 2023, 09:53:57	SE120150180210240270W 188°S (T) 55 S 757239 6433116 ±4m ▲ 455m  UC2225 Sep 2024, 9:44:38 AM	SE120150180210240270W 197°S (T) 55 S 757241 6433113 ±4m ▲ 455m  Ulan Creek Site#2218 Sep 2025, 11:21:11 AM

2025 Channel Stability Monitoring - Site Inspection Details

Creek Name: Ulan Creek

Date: 18 September 2025

Monitoring Site: UC23

Coordinates (MGA/Zone 55): 757162 (E) 6432943 (N)

CISRO Ephemeral Stream Assessment: Very Active

General Observations: Ulan Creek had water flowing at this location in 2025. The channel bed had little to no vegetation and is a mix of sand and small to medium size gravel. In 2022 additional build up of sand, silt and small gravel deposits were noted. The channel also has larger foreign rock and geofabric material to possibly stabilise the creek, however it appears to be having a more destabilising impact. Very active erosion along both banks was observed, particularly along the RHB causing a widening of the creek at this location. The RHB has a gentle slope above the bank. The bank wall is bare and exposed, near vertical walls and displays recent signs of erosion and undercutting. The LHB has a steeper slope above the bank and is partially stabilised by the foreign rock material. An old concrete pipe also sits downstream from this location and has been moved further downstream since 2019. Comparable groundcover above the LHB and RHB as previous year. Both sides of the creek are tree lined. Observations in 2025 noted a similar deteriorating trend when compared to previous monitoring*. The CSIRO *Ephemeral Stream Assessment* classification at this location as 'very active'.

Notes: In 2025 observations were limited to the RHB and water flowing. Very active undercutting and bank instabilities noted in 2024 and 2025, two small tress has fallen on the creek along the LHB in 2024.

Upstream 2023	Upstream 2024	Upstream 2025
		
Downstream 2023	Downstream 2024	Downstream 2025
		

2025 Channel Stability Monitoring - Site Inspection Details

Creek Name: Ulan Creek

Date: 18 September 2025

Monitoring Site: UC24

Coordinates (MGA/Zone 55): 757096 (E) 6432880 (N)

CISRO Ephemeral Stream Assessment: Very Active

General Observations: Ulan Creek had water flowing at this location in 2025. Active erosion along both banks was again observed. The low flow channel bed had little to no vegetation and is a mix of silt, sand, small size gravel and rock material. In 2022 additional build up of sand, silt and small gravel deposits were noted. The channel bed contains much larger foreign rock and geofabric material to possibly stabilise the creek, however it appears to be having a more destabilising impact. The RHB has a gentle to moderate slope above the bank, the bank wall is bare and exposed, near vertical and displays recent signs of erosion and bank undercutting. The LHB has a steeper slope above the bank and is partially stabilised by the imported rock. Comparable groundcover above the LHB and RHB as previous year. Both sides of the creek are tree lined. Observations in 2025 noted a similar deteriorating trend when compared to previous monitoring. The CSIRO *Ephemeral Stream Assessment* classification at this location as ‘very active’.

Notes: In 2025 observations were limited to the RHB and water flowing.

Upstream 2023	Upstream 2024	Upstream 2025
030°E (T) 55 S 757082 6432879 ±4m 454m  Ulan Creek Site 2426 Nov 2023, 10:18:10	103°E (T) 55 S 757085 6432883 ±4m 456m  UC2425 Sep 2024, 9:55:43 AM	97°E (T) 55 S 757086 6432885 ±4m 454m  Ulan Creek Site#2418 Sep 2025, 11:50:50 AM
Downstream 2023	Downstream 2024	Downstream 2025
227°SW (T) 55 S 757093 6432883 ±4m 454m  Ulan Creek Site 2428 Nov 2023, 10:19:06	219°SW (T) 55 S 757092 6432885 ±4m 457m  UC2425 Sep 2024, 9:55:24 AM	218°SW (T) 55 S 757090 6432886 ±4m 453m  Ulan Creek Site#2418 Sep 2025, 11:52:04 AM

APPENDIX B: Ulan Creek

2025 Channel Stability Monitoring - Site Inspection Details

Creek Name: Ulan Creek

Date: 18 September 2025

Monitoring Site: UC25

Coordinates (MGA/Zone 55): 757052 (E) 6432871 (N)

CISRO Ephemeral Stream Assessment: Active

General Observations: Ulan Creek had flowing at this location in 2025. The low flow channel bed had little vegetation and was a mix of silt, sand, small size gravel and rock material. In 2022 additional build up of sand, silt and small gravel deposits were noted. Active erosion was again noted along both banks in 2022. Both the LHB and RHB have a gentle slope above the bank. The LHB wall is near vertical, bare and exposed, with bank undercutting further downstream exposing tree roots. The RHB wall also has sparse vegetation with exposed tree roots, near vertical sections from the top of the bank. Comparable groundcover above the LHB and RHB as previous year. Both sides of the creek are tree lined. Observations in 2025 noted a similar deteriorating trend when compared to previous monitoring. The CSIRO *Ephemeral Stream Assessment* classification at this location as 'active'.

Notes: In 2025 observations were limited to the RHB and water flowing.

Upstream 2023	Upstream 2024	Upstream 2025
NEESES180120150 108°E (T) 55 S 757034 6432862 ±4m ▲ 453m  Ulan Creek Site 2528 Nov 2023, 10:22:07	NEESES180120150 102°E (T) 55 S 757032 6432863 ±4m ▲ 456m  UC2525 Sep 2024, 9:58:11 AM	NNEESE150 83°E (T) 55 S 757038 6432865 ±4m ▲ 452m  Ulan Creek Site#2518 Sep 2025, 11:57:21 AM
Downstream 2023	Downstream 2024	Downstream 2025
SESWW120150180210240270300 212°SW (T) 55 S 757046 6432866 ±4m ▲ 453m  Ulan Creek Site 2528 Nov 2023, 10:21:21	SESWW120150180210240270300 209°SW (T) 55 S 757046 6432867 ±4m ▲ 456m  UC2525 Sep 2024, 9:57:32 AM	SESWW120150180210240270300 215°SW (T) 55 S 757050 6432868 ±4m ▲ 452m  Ulan Creek Site#2518 Sep 2025, 11:56:47 AM

APPENDIX B: Ulan Creek

2025 Channel Stability Monitoring - Site Inspection Details

Creek Name: Ulan Creek

Date: 18 September 2025

Monitoring Site: UC26

Coordinates (MGA/Zone 55): 756929 (E) 6432750 (N)

CISRO Ephemeral Stream Assessment: Active

General Observations: Ulan Creek had water flowing at this location in 2025. The channel bed had little to no vegetation and is a mix of sand, silt and small size gravel. Active erosion was again noted along both banks in 2022. Both the LHB and RHB have a gentle slope above the banks. The RHB wall is near vertical, bare and exposed with signs of erosion back to bedrock. The LHB wall also has near vertical sections from the top of the bank, with bank undercutting further downstream exposing tree roots along the LHB. Comparable groundcover above the LHB and RHB as previous year. Both sides of the creek are tree lined. A large tree had fallen across the channel downstream since 2021. Observations in 2025 noted a similar deteriorating trend when compared to previous monitoring. The CSIRO *Ephemeral Stream Assessment* classification at this location as 'active'.

Notes: In 2025 observations were limited to the RHB and water flowing.

Upstream 2023	Upstream 2024	Upstream 2025
NW300330N030NE60E90 ☀ 20°N (T) ● 55 S 756918 6432742 ±4m ▲ 453m  Ulan Creek Site 2628 Nov 2023, 10:31:15	NW300330N030NE60E90120 ☀ 28°NE (T) ● 55 S 756918 6432743 ±4m ▲ 455m  UC2625 Sep 2024, 10:05:15 AM	NW300330N030NE60E90120 ☀ 26°NE (T) ● 55 S 756920 6432753 ±4m ▲ 452m  Ulan Creek Site#2618 Sep 2025, 12:06:01 PM
Downstream 2023	Downstream 2024	Downstream 2025
NE60E90S120S150S180SW210 ☀ 137°SE (T) ● 55 S 756923 6432754 ±4m ▲ 452m  Ulan Creek Site 2628 Nov 2023, 10:30:37	E60E90SE120S150S180SW210 ☀ 142°SE (T) ● 55 S 756918 6432753 ±4m ▲ 455m  UC2625 Sep 2024, 10:04:50 AM	E60E90SE120S150S180SW210 ☀ 143°SE (T) ● 55 S 756921 6432755 ±4m ▲ 452m  Ulan Creek Site#2618 Sep 2025, 12:05:44 PM

2025 Channel Stability Monitoring - Site Inspection Details

Creek Name: Ulan Creek

Date: 18 September 2025

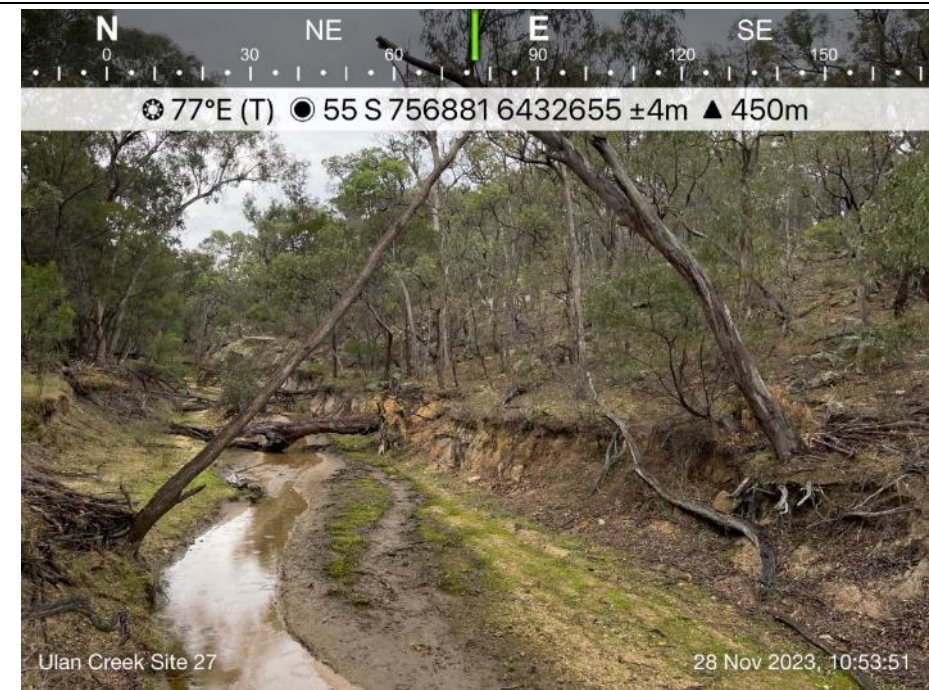
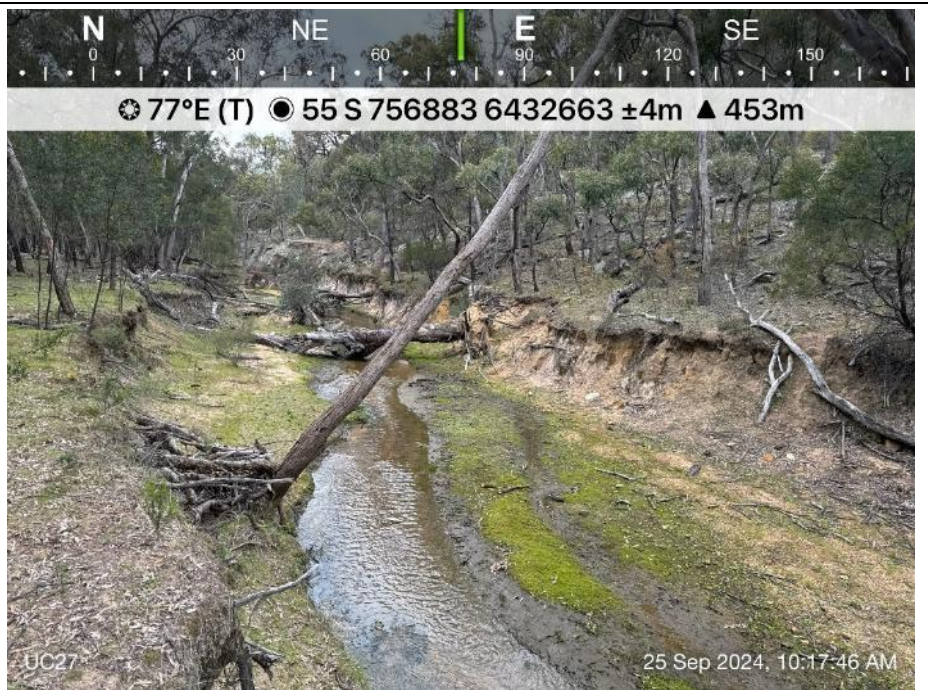
Monitoring Site: UC27

Coordinates (MGA/Zone 55): 756876 (E) 6432651 (N)

CISRO Ephemeral Stream Assessment: Active

General Observations: Ulan Creek had water flowing at this location in 2025. The channel bed had little to no vegetation and is a mix of silt, sand and small gravel material. Active erosion was again noted along both banks in 2022, particularly on the RHB. In 2022 additional build up of sand, silt and small gravel deposits were noted. Sand deposits above the RHB were recorded in 2020. Both the LHB and RHB have a gentle slope above the bank. The RHB wall is near vertical, bare and exposed with signs of erosion. The LHB wall also has near vertical sections and is also bare and exposed. Tree roots are exposed on both bank walls. There is slight bank undercutting along the LHB. Comparable groundcover above the LHB and RHB as previous year. Both sides of the creek are tree lined. Observations in 2024 noted a similar deteriorating trend when compared to previous monitoring. The *CSIRO Ephemeral Stream Assessment* classification at this location as 'active'.

Notes: In 2025 observations were limited to the RHB and water flowing. Upstream a tree had fallen from the LHB across the creek since 2022 monitoring.

Upstream 2023	Upstream 2024	Upstream 2025
		
Downstream 2023	Downstream 2024	Downstream 2025
		

2025 Channel Stability Monitoring - Site Inspection Details

Creek Name: Ulan Creek
Date: 18 September 2025
Monitoring Site: UC28
Coordinates (MGA/Zone 55): 756824 (E) 6432508 (N)
CISRO Ephemeral Stream Assessment: Potentially Stabilising

General Observations: Ulan Creek had water flowing at this location in 2025. The flow channel bed had little to no vegetation and is a mix of silt, sand, small size gravel and rock material. Deposited sediment was noted in the channel bed in 2020. Both the LHB and RHB have a gentle slope above the bank. The RHB wall is formed from bedrock and is stable. The LHB has near vertical lower sections, partially vegetated with signs of erosion and bank undercutting. Comparable groundcover above the LHB and RHB as previous year. Both sides of the creek are tree lined. Observations in 2025 are comparable to previous monitoring. The CSIRO *Ephemeral Stream Assessment* classification at this location as 'potentially stabilising'.

Notes: In 2025 observations were limited to the RHB and water flowing.

Upstream 2023	Upstream 2024	Upstream 2025
W240270300NW330N030NE ☀ 322°NW (T) ● 55 S 756816 6432505 ±4m ▲ 450m  Ulan Creek Site 2828 Nov 2023, 11:00:40	W240270300NW330N030NE ☀ 323°NW (T) ● 55 S 756815 6432504 ±4m ▲ 451m  UC2825 Sep 2024, 10:22:29 AM	W240270300NW330N030NE ☀ 329°NW (T) ● 55 S 756813 6432507 ±4m ▲ 450m  Ulan Creek Site#E2818 Sep 2025, 12:19:05 PM
Downstream 2023	Downstream 2024	Downstream 2025
NE30E6090120SE150180S210 ☀ 123°SE (T) ● 55 S 756814 6432506 ±3m ▲ 439m  Ulan Creek Site 2828 Nov 2023, 11:00:07	NE30E6090120SE150180S210 ☀ 121°SE (T) ● 55 S 756811 6432507 ±4m ▲ 451m  UC2825 Sep 2024, 10:22:07 AM	NE30E6090120SE150180S210 ☀ 125°SE (T) ● 55 S 756811 6432509 ±4m ▲ 451m  Ulan Creek Site#E2818 Sep 2025, 12:18:51 PM

2025 Channel Stability Monitoring - Site Inspection Details

Creek Name: Ulan Creek
Date: 18 September 2025
Monitoring Site: UC29
Coordinates (MGA/Zone 55): 756821 (E) 6432374 (N)
CISRO Ephemeral Stream Assessment: Active

General Observations: Ulan Creek had water flowing at this location in 2025. The low flow channel bed had little to no vegetation and was a mix of sand and small to medium gravel size rock material. Deposited sediment was noted in the channel bed in 2020. Both the LHB and RHB have a steep rock/boulder slope above the bank. The RHB is near vertical formed from bedrock and is stable. The LHB wall has near vertical mid sections, sparsely vegetated with signs of active erosion in 2022. Comparable groundcover above the LHB and RHB as previous year. Both sides of the creek are tree lined. A piece of jute mesh that was most likely from Site UC25 was caught up on the RHB. Observations in 2024 are comparable to previous monitoring. The CSIRO *Ephemeral Stream Assessment* classification at this location as 'active'.

Notes: In 2025 observations were limited to the LHB and water flowing. Jute mesh material from RHB transported downstream since 2022 monitoring.

Upstream 2023	Upstream 2024	Upstream 2025
NW3003300N030NE60E90120 ☉ 26°NE (T) ☉ 55 S 756823 6432368 ±4m ▲ 444m  Ulan Creek Site 2928 Nov 2023, 11:05:58	NW3003300N030NE60E90120 ☉ 28°NE (T) ☉ 55 S 756824 6432371 ±4m ▲ 452m  UC2925 Sep 2024, 10:26:07 AM	NW3300N030NE60E90120 ☉ 38°NE (T) ☉ 55 S 756825 6432381 ±4m ▲ 450m  Ulan Creek Site#2918 Sep 2025, 12:24:16 PM
Downstream 2023	Downstream 2024	Downstream 2025
N030NE60E90SE120150180 ☉ 104°E (T) ☉ 55 S 756816 6432503 ±4m ▲ 450m  Ulan Creek Site 2928 Nov 2023, 11:05:35	E90SE120150180S210SW240 ☉ 173°S (T) ☉ 55 S 756824 6432375 ±4m ▲ 452m  UC2925 Sep 2024, 10:25:39 AM	E90SE120150180S210SW240 ☉ 173°S (T) ☉ 55 S 756825 6432380 ±4m ▲ 452m  Ulan Creek Site#2918 Sep 2025, 12:23:52 PM

2025 Channel Stability Monitoring - Site Inspection Details

Creek Name: Ulan Creek

Date: Not inspected in 2025 due to access constraints from creek flows

Monitoring Site: UC30 (Not visited in 2020 this site was inaccessible)

Coordinates (MGA/Zone 55): 756851 (E) 6432305 (N)

CISRO Ephemeral Stream Assessment: Active

General Observations: Ulan Creek had water pooling at this location in 2024. The channel bed had little to no vegetation and is a mix of silt, sand and small gravel size rock material with several large boulders. In 2022 additional build up of sand, silt and small gravel deposits were noted. The RHB has a steep rock and boulder slope above the bank. The RHB wall is near vertical, bare and exposed, displays undercutting erosion with exposed tree roots. The LHB wall has near vertical sections from the top of the bank, a moderate to steep slope above the bank, increased vegetation in 2022 with signs of erosion. Both sides of the creek are tree lined. A large tree had fallen across the channel downstream since 2021. Observations in 2023 are comparable to previous monitoring. The CSIRO *Ephemeral Stream Assessment* classification at this location as 'active'.

Notes: In 2024 observations were limited to the LHB and water flowing. Decreasing vegetative ground cover noted in 2023. Silt deposits along the edges of the channel bed noted in 2023.

Upstream 2023	Upstream 2024	Upstream 2025
SW240W270NW300330N030 ☼ 307°NW (T) ● 55 S 756854 6432307 ±4m ▲ 452m  Ulan Creek Site 3028 Nov 2023, 11:11:10	SW210240W270NW300330N0 ☼ 293°NW (T) ● 55 S 756859 6432312 ±4m ▲ 454m  UC3025 Sep 2024, 10:32:18 AM	Not inspected in 2025 due to access constraints from creek flows
Downstream 2023	Downstream 2024	Downstream 2025
E90SE120S150180SW210240 ☼ 155°SE (T) ● 55 S 756850 6432313 ±4m ▲ 445m  Ulan Creek Site 3028 Nov 2023, 11:10:52	SE120S150180SW210240W270 ☼ 191°S (T) ● 55 S 756854 6432321 ±4m ▲ 453m  UC3025 Sep 2024, 10:32:53 AM	Not inspected in 2025 due to access constraints from creek flows

APPENDIX B: Ulan Creek

2025 Channel Stability Monitoring - Site Inspection Details		
Creek Name: Ulan Creek Date: Not inspected in 2025 due to access constraints from creek flows Monitoring Site: UC31 (Not visited in 2020 this site was inaccessible) Coordinates (MGA/Zone 55): 756840(E) 6432211(N) CISRO Ephemeral Stream Assessment: Active General Observations: Ulan Creek had water flowing at this location in 2024. The channel bed had little to no vegetation and formed from bedrock with deposited sediments and sand. Large pieces of bedrock type material were noted in the channel bed. In 2022 additional build up of sand and silt deposits were noted. The RHB has a steep rock slope above the bank. The RHB wall is near vertical, bare and exposed, displays undercutting erosion with exposed tree roots. The LHB wall has near vertical lower sections, a steep rock/boulder slope above the bank. The LHB is partially vegetated with signs of erosion. Both sides of the creek are tree lined. Observations in 2024 are comparable to previous monitoring. The CSIRO <i>Ephemeral Stream Assessment</i> classification at this location as 'active'. Notes: In 2024 observations were limited to the LHB and by water flowing. A tree had fallen from the RHB across the creek since 2022 monitoring.		
Upstream 2023	Upstream 2024	Upstream 2025
		Not inspected in 2025 due to access constraints from creek flows
Downstream 2023	Downstream 2024	Downstream 2025
		Not inspected in 2025 due to access constraints from creek flows

APPENDIX B: Ulan Creek

2025 Channel Stability Monitoring - Site Inspection Details

Creek Name: Ulan Creek

Date: Not inspected in 2025 due to access constraints from creek flows

Monitoring Site: UC32 (Not visited in 2020 this site was inaccessible)

Coordinates (MGA/Zone 55): 756816 (E) 6432138 (N)

CISRO Ephemeral Stream Assessment: Potentially Stabilising

General Observations: Ulan Creek had water flowing at this location in 2024. The low flow channel bed has no vegetation and is formed from bedrock with sediment deposits. In 2022 additional build up of sand, silt and small gravel deposits were noted. There is a steep rock (almost cliff line in appearance) slope above the RHB bank. The RHB wall is a moderate slope and is partially vegetated with rock boulders and appears stable. The LHB is similar to the RHB. Both sides of the creek are tree lined. Observations in 2024 are comparable to previous monitoring. The CSIRO *Ephemeral Stream Assessment* classification at this location as 'potentially stabilising'.

Notes: In 2024 observations were limited to the LHB by water flowing.

Upstream 2023	Upstream 2024	Upstream 2025
W270NW300330N0NE60 ☼ 348°N (T) ● 55 S 756811 6432135 ±4m ▲ 453m A photograph of a creek flowing through a wooded area. The water is brown and turbulent. The banks are covered in green moss and vegetation. The photo is taken from a low angle, looking down the creek. Ulan Creek Site 3228 Nov 2023, 11:21:36	W270NW300330N0NE60 ☼ 344°N (T) ● 55 S 756813 6432133 ±4m ▲ 453m A photograph of a creek flowing through a wooded area. The water is brown and turbulent. The banks are covered in green moss and vegetation. The photo is taken from a low angle, looking down the creek. UC3225 Sep 2024, 10:40:44 AM	Not inspected in 2025 due to access constraints from creek flows
Downstream 2023	Downstream 2024	Downstream 2025
SE120S180SW240W270300 ☼ 209°SW (T) ● 55 S 756813 6432133 ±4m ▲ 453m A photograph of a creek flowing through a wooded area. The water is brown and turbulent. The banks are covered in green moss and vegetation. The photo is taken from a low angle, looking down the creek. Ulan Creek Site 3228 Nov 2023, 11:21:52	SE120S180SW240W270300 ☼ 210°SW (T) ● 55 S 756812 6432134 ±4m ▲ 452m A photograph of a creek flowing through a wooded area. The water is brown and turbulent. The banks are covered in green moss and vegetation. The photo is taken from a low angle, looking down the creek. UC3225 Sep 2024, 10:40:21 AM	Not inspected in 2025 due to access constraints from creek flows

2025 Channel Stability Monitoring - Site Inspection Details		
Creek Name: Ulan Creek Date: Not inspected in 2025 due to access constraints from creek flows Monitoring Site: UC33 (Not visited in 2020 this site was inaccessible) Coordinates (MGA/Zone 55): 756812 (E) 6432094 (N) CISRO Ephemeral Stream Assessment: Potentially Stabilising General Observations: Ulan Creek had water flowing at this location in 2024. The low flow channel bed had little to no vegetation, on bedrock covered with sediment deposits. In 2022 additional build up of sand, silt and small gravel deposits were noted. The RHB has a steep slope above the bank. The RHB wall is near vertical, bare and exposed and formed from bedrock and loose rocks and boulders, with signs of erosion. Carbonaceous bedrock material is also exposed along the RHB. The LHB has a moderate, partially vegetated slope, with a moderate to slope with rock boulders above the bank. Both sides of the creek are tree lined. Observations in 2024 are comparable to previous monitoring. The CSIRO <i>Ephemeral Stream Assessment</i> classification at this location as 'potentially stabilising'. Notes: In 2024 observations were limited to the LHB by water flowing.		
Upstream 2023	Upstream 2024	Upstream 2025
SWW300NW0 2102402703003300 ☼ 293°W (T) ● 55 S 756839 6432096 ±4m ▲ 451m  Ulan Creek Site 3328 Nov 2023, 11:23:48	SWW300NW0 2102402703003300 ☼ 281°W (T) ● 55 S 756836 6432097 ±4m ▲ 451m  UC3325 Sep 2024, 10:42:19 AM	Not inspected in 2025 due to access constraints from creek flows
Downstream 2023	Downstream 2024	Downstream 2025
ESE180S240 90120150180210240 ☼ 157°SE (T) ● 55 S 756817 6432110 ±4m ▲ 453m  Ulan Creek Site 3328 Nov 2023, 11:22:51	ESE15S240 609012015180210240 ☼ 152°SE (T) ● 55 S 756819 6432110 ±4m ▲ 454m  UC3325 Sep 2024, 10:41:55 AM	Not inspected in 2025 due to access constraints from creek flows

2025 Channel Stability Monitoring - Site Inspection Details

Creek Name: Ulan Creek
Date: 18 September 2025
Monitoring Site: UC34
Coordinates (MGA/Zone 55): 756873(E) 6431844 (N)
CISRO Ephemeral Stream Assessment: Active

General Observations: Ulan Creek had water flowing at this location in 2025. Small to medium size rock material and deposited sediments noted in the channel bed. In 2022 additional build up of sand, silt and small gravel deposits were noted. The RHB is a moderate slope with increasing vegetation up slope, with little to no vegetation along the lower section. The LHB wall has near vertical sections from the top of the bank, mostly bare and exposed, with a moderate to steep slope above the bank. Signs of erosion was noted along both the LHB and RHB in 2022. Comparable groundcover above the LHB and RHB as previous year. Both sides of the creek are tree lined. Observations in 2025 are comparable to previous monitoring. The CSIRO *Ephemeral Stream Assessment* classification at this location as 'active'.

Notes: In 2025 observations were limited by water flowing.

Upstream 2023	Upstream 2024	Upstream 2025
NW003300N030NE60E90 ☀ 26°NE (T) ● 55 S 756855 6431847 ±4m ▲ 447m  Ulan Creek Site 3428 Nov 2023, 11:34:24	NW003300N030NE60E90 ☀ 34°NE (T) ● 55 S 756854 6431846 ±4m ▲ 447m  UC3425 Sep 2024, 10:53:40 AM	NW003300N030NE60E90 ☀ 42°NE (T) ● 55 S 756856 6431859 ±4m ▲ 446m  Ulan Creek Site#3418 Sep 2025, 12:43:06 PM
Downstream 2023	Downstream 2024	Downstream 2025
E90SE120S180SW210W240 ☀ 175°S (T) ● 55 S 756858 6431847 ±4m ▲ 437m  Ulan Creek Site 3428 Nov 2023, 11:33:36	E90SE120S180SW210W240 ☀ 177°S (T) ● 55 S 756860 6431850 ±12m ▲ 449m  UC3425 Sep 2024, 10:53:20 AM	E90SE120S180SW210W240 ☀ 177°S (T) ● 55 S 756859 6431863 ±4m ▲ 448m  Ulan Creek Site#3418 Sep 2025, 12:42:50 PM

APPENDIX B: Ulan Creek

2025 Channel Stability Monitoring - Site Inspection Details

Creek Name: Ulan Creek

Date: 18 September 2025

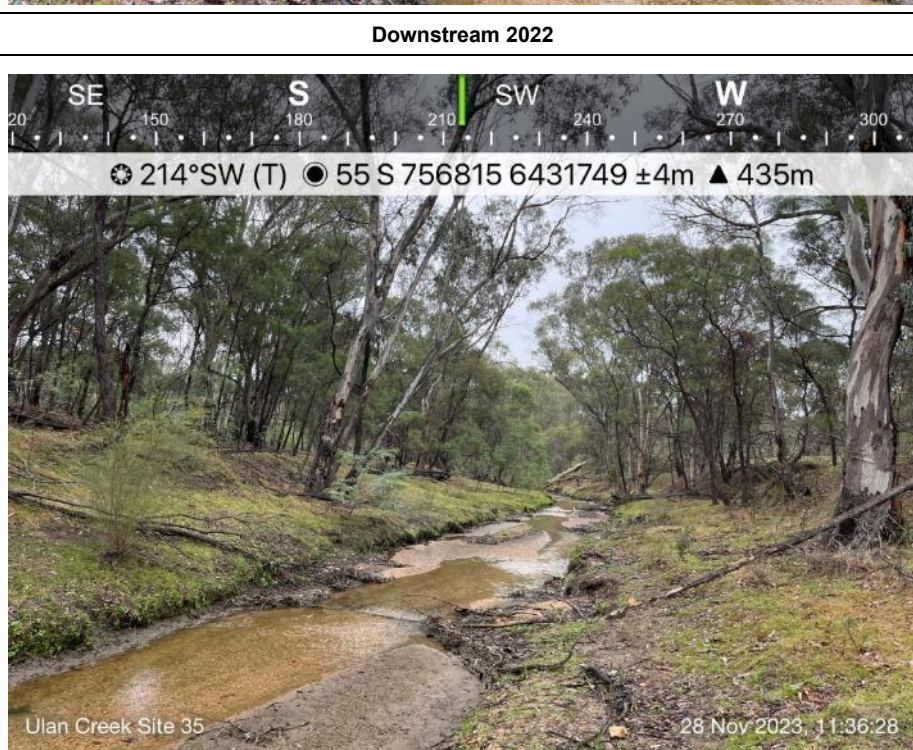
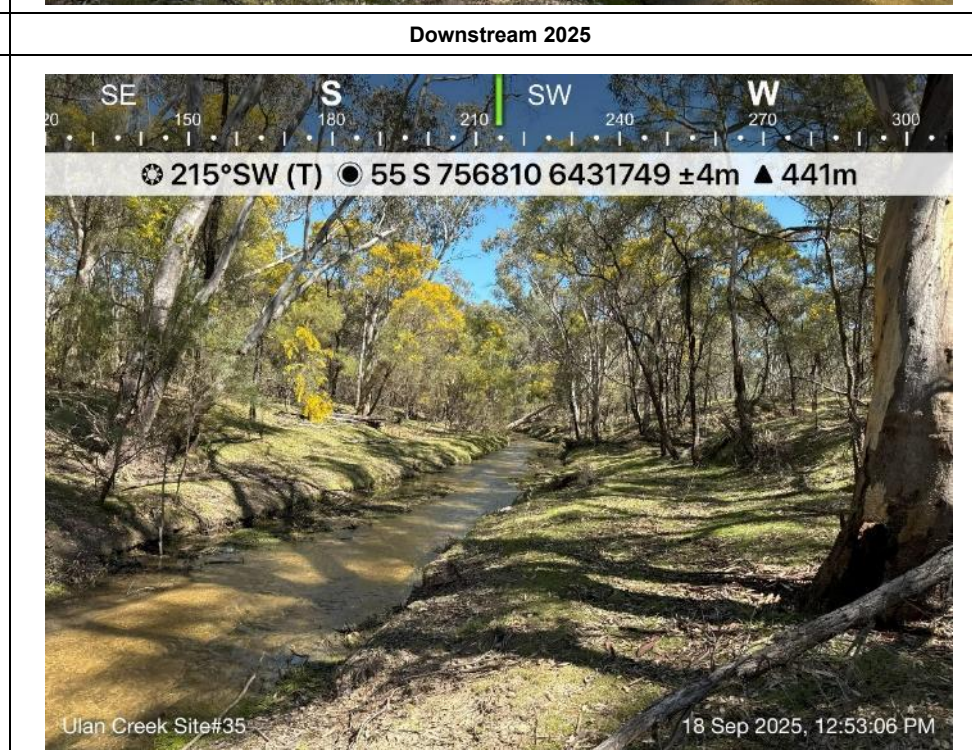
Monitoring Site: UC35*

Coordinates (MGA/Zone 55): 756809 (E) 6431741 (N)

CISRO Ephemeral Stream Assessment: Potentially Stabilising

General Observations: Ulan Creek had water flowing at this location in 2022. The low flow channel bed had little to no vegetation and is a mix of silt, sand and small to medium size gravel. In 2022 additional build up of sand, silt and small gravel deposits were noted. Minor bank instabilities were noted in 2022 along the LHB. A flow line enters Ulan Creek at this point. The LHB has a moderate slope and is well vegetated. The RHB is similar to the LHB. An increase of groundcover above the LHB and RHB when compared to 2023. Both sides of the creek are tree lined. Observations in 2025 are comparable to previous monitoring. The CSIRO *Ephemeral Stream Assessment* classification at this location as 'potentially stabilising'.

Notes: In 2025 observations were limited to the RHB by water flowing.

Upstream 2023 	Upstream 2024 *Image was not available	Upstream 2025 
Downstream 2022 	Downstream 2024 *Image was not available	Downstream 2025 

APPENDIX B: Ulan Creek

2025 Channel Stability Monitoring - Site Inspection Details

Creek Name: Ulan Creek
Date: 18 September 2025
Monitoring Site: UC36
Coordinates (MGA/Zone 55): 756754 (E) 6431673 (N)
CISRO Ephemeral Stream Assessment: Active

General Observations: Ulan Creek had water flowing at this location in 2025. The channel bed had little to no vegetation and is a mix of silt, sand and small to medium size gravel. In 2022 additional build up of sand, silt and small gravel deposits were noted. The LHB has a moderate slope above and was vegetated. The LHB wall displayed signs of undercutting. The RHB has a steeper slope above well vegetated. Comparable groundcover above the LHB and RHB as previous year. Both sides of the creek have some bare and exposed areas with evidence of past erosion although the amount. Both sides of the creek are tree lined. Observations in 2024 are comparable to previous monitoring. The CSIRO *Ephemeral Stream Assessment* classification at this location as 'potentially stabilising'.

Notes: In 2025 observations were limited to the RHB by water flowing.

Upstream 2023	Upstream 2024	Upstream 2025
NW0330N030NE60E90120 ☀ 36°NE (T) ● 55 S 756754 6431678 ±4m ▲ 430m  Ulan Creek Site 3628 Nov 2023, 11:44:19	NW330N030NE60E90120SE ☀ 45°NE (T) ● 55 S 756757 6431687 ±4m ▲ 436m  UC3625 Sep 2024, 11:02:19 AM	NW330N030NE60E90120SE ☀ 42°NE (T) ● 55 S 756756 6431690 ±4m ▲ 435m  Ulan Creek Site#3618 Sep 2025, 12:58:23 PM
Downstream 2023	Downstream 2024	Downstream 2025
E90SE120S180SW210240 ☀ 173°S (T) ● 55 S 756755 6431680 ±4m ▲ 436m  Ulan Creek Site 3628 Nov 2023, 11:45:01	SE120S180SW210240W270 ☀ 192°S (T) ● 55 S 756760 6431695 ±4m ▲ 436m  UC3625-Sep 2024, 11:02:34 AM	SE120S180SW210240W270 ☀ 199°S (T) ● 55 S 756760 6431696 ±4m ▲ 436m  Ulan Creek Site#3618 Sep 2025, 12:58:00 PM

2025 Channel Stability Monitoring - Site Inspection Details

Creek Name: Ulan Creek

Date: 18 September 2025

Monitoring Site: UC37

Coordinates (MGA/Zone 55): 756795 (E) 6431567 (N)

CISRO Ephemeral Stream Assessment: Active

General Observations: Ulan Creek had water flowing at this location in 2025. The flow channel bed had little to no vegetation. Larger size rock material was noted in the channel bed. The site is located at a failed gabion structure installed to gain access across the creek which has accumulated flood debris. Previous scour holes in the creek bed downstream from the gabion structure have been infilled. The RHB has a moderate to steep slope. The LHB is a more moderate slope. Comparable groundcover above the LHB and RHB as previous year. Both sides of the creek have some bare and exposed areas with evidence of past erosion and flood debris. The coverage of ground cover noted along the banks appeared to be slightly increasing. Both sides of the creek have few trees lining the banks. Observations in 2025 are comparable to previous monitoring. The CSIRO *Ephemeral Stream Assessment* classification at this location as 'active'.

Notes: In 2025 observations were limited by water flowing.

Upstream 2023	Upstream 2024	Upstream 2025
W270NW300330N03060NE ☀ 354°N (T) ● 31 N 1660210 ▲ 0m  Ulan Creek Site 37 28 Nov 2023, 11:49:14	W270NW300330N03060NE ☀ 352°N (T) ● 55 S 756768 6431575 ±4m ▲ 435m  UC37 25 Sep 2024, 11:06:41 AM	W270NW300330N03060NE90E ☀ 3°N (T) ● 55 S 756769 6431578 ±4m ▲ 434m  Ulan Creek Site#37 18 Sep 2025, 1:04:06 PM
Downstream 2023	Downstream 2024	Downstream 2025
NE60E90SE120150180S210SW ☀ 132°SE (T) ● 55 S 756763 6431583 ±4m ▲ 432m  Ulan Creek Site 37 28 Nov 2023, 11:49:46	NE60E90SE120150180S210SW ☀ 131°SE (T) ● 55 S 756764 6431584 ±4m ▲ 434m  UC37 25 Sep 2024, 11:06:16 AM	NE60E90SE120150180S210SW ☀ 128°SE (T) ● 55 S 756766 6431585 ±4m ▲ 433m  Ulan Creek Site#37 18 Sep 2025, 1:03:35 PM

