Drone Flood Mapping during Storm Chandra

undertaken for

Project RESCUE

DroneSurv®

Somerset Council

Land and Minerals Consulting Limited
Consulting Engineering Geologists and Surveyors

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Executive Summary

Scope of Work

Storm Chandra (Monday 26th and Tuesday 27th January 2026) closely followed Storm Ingrid (Saturday 24th January 2026) and was the 7th named storm of the 2025/2026 winter. The cumulative rainfall during these events led to extensive flooding of the Somerset Moors. Somerset's Flood Management Team had heard about the UKRI funded Project RESCUE and their Manager (Neil Ogilvie) asked Project RESCUE's Project Manager (Corinne Mathews) if anyone in the project team could undertake mapping of the Somerset Moors. Corinne passed the enquiry on to Land and Minerals Consulting Limited (trading as DroneSurv®) project lead (Adrian Wilkinson).

No formal scope of work was issued and the verbal instruction was simply to map an area between the hamlets of Fordgate, Northmoor Green, Burrowbridge, East Lyng, and West Lyng (an area known as Northmoor and Saltmoor).

Project Team

DroneSurv mobilised two qualified Drone Pilots Surveyors (Adrian Wilkinson and Dan Pestell). Adrian is also a Chartered Geologist and Dan Pestel is a qualified Land Surveyor.

Methodology

Upon receiving the telephone enquiry (on the morning of 28th January), the requisite Pre-deployment Risk Assessments were produced in DroneDesk and issued to Somerset Council. The survey team mobilised within an hour of the initial telephone enquiry with a DJI Mavic 3 Enterprise done operating under a PDRA-01 Operational Authorisation.

The team initially drove eastwards along the A361 until the road was rendered impassible by the floods. A 500m radius drone survey was undertaken with photographs taken vertically down and overlapping by 70% in order to produce an accurate photogrammetric point-cloud survey and othophotograph.

The survey team then backtracked along the A361 until a track heading towards the flooded area was found. The team then drove down that track until the floodwaters were once again encountered and another 500m radius survey undertaken.

It was immediately obvious that vertical photography for photogrammetry was not going cover the whole flood limit from the isolated places that could be driven to without a BVLOS Operational Authorisation. To enable mapping of the flood limits between the survey areas, oblique photographs were also obtained (and the flood limits would be mapped by eye from these oblique photographs for the areas between the isolated take-off and landing positions).

The process outlined above was repeated for 8 locations, flown over 2 days (28th and 29th January 2026), around Northmoor and Saltmoor in a clockwise direction (finishing at Burrowbridge).

Survey Results

Processing of the day's photographs was undertaken each evening and composite orthophotographs and the oblique photographs were sent to Neil and Corinne early the following mornings.

Conclusions

The flood maps were received well by Neil Ogilvie and in particular drone photograph evidence of the disused railway (Lyng Cutting Spillway) moving floodwater from the adjacent Curry Moor into Northmoor.

From a Project RESCUE point of view, a key finding was the difficulty in mapping the area under a PDRA-01 Operational Authorisation, and that a pure BVLOS Authorisation would be much more useful (as would a more weather resistant drone).

Drone Flood Mapping during Storm Chandra

undertaken for Project RESCUE

Site N° : 01002

Project N° : 260128/APW

Report Date : 28th March 2026

Prepared on behalf of DroneSurv by:

Adrian Wilkinson
Chartered Geologist
Managing Director

BSc(Hons), PGDip (CSM), Eur.Geol, C.Geol, FGS, FIQ, MRAeS

Distribution List

Name	Company position	Format	Date
Corinne Matthews	Somerset Council Industrial Sectors Specialist	PDF	28/03/2026

Author Profile

Adrian Wilkinson *(Managing Director) is a Chartered Geologist and Fellow of The Geological Society of London, a Member of the European Federation of Geologists, a Fellow of the Institute of Quarrying, and a Member of The Royal Aeronautical Society. He holds an Honours Degree in Applied and Environmental Geology awarded from The University of Birmingham in 1993 and a Post Graduate Diploma in Applied Geotechnics awarded from Camborne School of Mines in 2011. He was formerly employed by RMC Roadstone (now part of the Cemex Group) and then Tarmac (now part of the CRH Group) before forming Land and Minerals Consulting Ltd in 2004. He is a 'Geotechnical Specialist' under the Quarries Regulations 1999, a 'Competent Person' as defined by the Pan-European Reserves & Resources Reporting Committee for the Reporting of Exploration Results, Mineral Resources and Minerals Reserves ("PERC Standard"), has advised on Due Diligence for mergers and acquisitions of aggregate quarries and has acted as an Expert Witness on minerals related matters. Since 2010 when the Company invested in its first long-range high-resolution LiDAR scanner and in 2013 when it invested in its first Uncrewed Aerial System ('drone'), Adrian has developed (and overseen the Company's development of) a specialism in obtaining point-cloud surveys of hazardous or difficult to survey landforms, undertaking geological, geomorphological and geotechnical mapping on those 3D surveys and assessing the stability of those landforms and teaches "Remote Acquisition and Interpretation of Geological and Geotechnical Data" to Newcastle University's MSc Engineering Geology Course. He also holds a General Visual line of sight Certificate (GVC) to fly Uncrewed Aerial Systems in the Specific Category and is the company's Accountable Manger to the CAA.*

Company Profile

DroneSurv® *is a registered trading name of* ***Land and Minerals Consulting Limited****. It was formed in 2004 as a geological, geotechnical and surveying consultancy (mainly to the UK and Irish mining and quarry industry but has since diversified into a wider range of industries). They specialise in the remote acquisition of survey, geological, geotechnical and hydrogeological data using the latest technology in terrestrial and drone mounted LiDAR and Photogrammetric systems. The Company was awarded its first Permission for Commercial Operations (PfCO) by the UK Civil Aviation Authority (CAA) in 2013 with the CAA Reference number 244. The Company has maintained its CAA permissions and currently hold an Operational Authorisation based upon an Operational Safety Case (OSC) for Beyond Visual Line of Sight with Visual Mitigation (BVLOS-VM) drone operations in the Specific Category with their 'Trinity' VTOL fixed-wing UAS and a PDRA-01 Operational Authorisation to fly 'close to' Residential, Recreational, Commercial and Industrial areas with their DJI Mavic UAS.*

In addition to having the equipment and expertise to acquire the data; the Company also has the hardware, software and (most importantly) the experience to process that data into formats required by a wide range of industry standard surveying, geological modelling and geotechnical analysis software (and any other format that the client or end-user requires). Furthermore, as an integrated consultancy, the Company's surveyors, geologists, hydrogeologists, and engineers and are also able to undertake the analysis (and if required, the designs) for natural exposures, excavations (both surface and subterranean), embankments, tips and lagoons in both engineering soil materials and rock masses.

The Company has undertaken projects for a wide range of industries including Quarrying Companies, Mining Companies, Construction Companies, Media Companies, Television & Film Companies, Property & Estate Management Companies, Local Government, The Gibraltarian Government, and the Ministry of Defence and has worked extensively in the UK, as well as in Ireland, France, Norway, Sweden, Greenland, Spain, Portugal, Gibraltar, Sardinia, Saudi Arabia, Senegal, Bangladesh, Chile, Argentina and the Falkland Islands. The Company was involved during the pre-production of HBO's highly successful Game of Thrones series (assessing the risks of film sets built in quarries) and their point cloud surveys were used extensively during all seasons by the VFX (Visual Effects) department. They have also produced 3D drone surveys of the racetracks and 'B-Roll' video for the worldwide Extreme-E (electric) and Extreme-H (hydrogen) powered rally car series.

1 Scope of Work

Storm Chandra (Monday 26th and Tuesday 27th January 2026) closely followed Storm Ingrid (Saturday 24th January 2026) and was the 7th named storm of the 2025/2026 winter.

The cumulative rainfall during these events led to extensive flooding of the Somerset Levels. Somerset's Flood Management Team had heard about the UKRI funded Project RESCUE and their Manager (Neil Ogilvie) asked Project RESCUE's Project Manager (Corinne Mathews) if anyone in the project team could undertake mapping of the Somerset Levels. Corinne passed the enquiry on to Land and Minerals Consulting Limited (trading as DroneSurv®) project lead (Adrian Wilkinson).

No formal scope of work was issued and the verbal instruction was simply to map an area between the villages / hamlets of Fordgate, Northmoor Green, Burrowbridge, East Lyng, and West Lyng (an area known as North Moor and Salt Moor) as shown in Figure 1 below.

Figure 1 : The assumed survey area in Google Earth based upon the verbal instruction.

2 Project Team

DroneSurv are specialist survey consultants who's expertise has been used globally by numerous companies and who have a proven track record in delivering complex surveys using a wide range of survey techniques (including remotely operated vehicles, vessels and aircraft).

DroneSurv mobilised the Company's Managing Director (Adrian Wilkinson) who is a qualified Engineering Geologist and a qualified land Surveyor (Dan Pestell). Both Adrian and Dan hold the General Visual Line of sight Certificate (GVC) to fly uncrewed aerial systems in the Specific category. In addition, DroneSurv has a PDRA-01 Operational Authorisation to fly their multi-rotor drones within 150m of residential, recreational, commercial and industrial areas. Theu also have a Operating Safety Case (OSC) Operational Authorisation to fly their "Trinity" VTOL fixed-wing aircraft to 2km with visual observers.

Project Manager

Adrian Wilkinson (Managing Director) is a Chartered Geologist and Fellow of The Geological Society of London, a Member of the European Federation of Geologists, a Fellow of the Institute of Quarrying, and a Member of The Royal Aeronautical Society. He holds an Honours Degree in Applied and Environmental Geology awarded from The University of Birmingham in 1993 and a Post Graduate Diploma in Applied Geotechnics awarded from Camborne School of Mines in 2011. He was formerly employed by RMC (now part of the Cemex Group) and then Tarmac (now part of the CRH Group) before forming Land and Minerals Consulting Ltd in 2004. He is a 'Geotechnical Specialist' under the Quarries Regulations 1999, a 'Competent Person' as defined by the Pan-European Reserves & Resources Reporting Committee for the Reporting of Exploration Results, Mineral Resources and Minerals Reserves ("PERC Standard"), has advised on Due Diligence for mergers and acquisitions of aggregate quarries and has acted as an Expert Witness on minerals related matters. Since 2010 when the Company invested in its first long-range high-resolution LiDAR scanner and in 2013 when it invested in its first Uncrewed Aerial System ('drone'), Adrian has developed (and overseen the Company's development of) a specialism in obtaining point-cloud surveys of hazardous or difficult to survey landforms, undertaking geological, geomorphological and geotechnical mapping on those 3D surveys and assessing the stability of those landforms and teaches "Remote Acquisition and Interpretation of Geological and Geotechnical Data" to Newcastle University's MSc Engineering Geology Course. He also holds a General Visual line of sight Certificate (GVC) to fly Uncrewed Aerial Systems in the Specific Category and is the company's Accountable Manger to the CAA.

Surveyor

Dan Pestell (Geospatial Data Engineer) joined LMCL in September 2016 from Clevedon School 6th Form. He completed a two-year Apprenticeship with LMCL gaining a Diploma in Construction and the Built Environment from Bridgwater and Taunton College. Since January 2018 he has been enrolled on a six-year part-time BSc Earth Sciences degree course with the Open University. He is a Technical Member of the Institute of Quarrying and is qualified to commercially fly small unmanned aerial systems. While working at LMCL, he has completed a surface surveying course with The Survey School in Worcester and an underground mine surveying course with Camborne School of Mines. He has developed a proficiency in processing and analysing the exceptionally large data sets generated by LiDAR scanners and drone captured photogrammetric surveys. He also holds a General Visual line of sight Certificate (GVC) to fly Unmanned Aerial Systems in the Specific Category.

3 Methodology

Upon receiving the telephone enquiry (on the morning of 28th January), the requisite Pre-deployment Risk Assessments were produced in DroneDesk and issued to Somerset Council (this document is reproduced in Appendix 1).

The survey team mobilised within an hour of the initial telephone enquiry with a DJI Mavic 3 Enterprise done operating under their PDRA-01 Operational Authorisation.

The team initially drove eastwards along the A361 until the road was rendered impassible by the floods. A 500m radius drone survey was undertaken with photographs taken vertically down and overlapping by 70% in order to produce an accurate photogrammetric point-cloud survey and orthophotograph.

The survey team then backtracked along the A361 until a track heading northwards to the flooded area was found. The team then drove down that track until the floodwaters were once again encountered and another 500m radius survey undertaken.

It was immediately obvious that vertical photography for photogrammetry was not going cover the whole flood limit from the isolated places that could be driven to without a BVLOS Operational Authorisation. To enable mapping of the flood limits between the survey areas, oblique photographs were also obtained (and the flood limits would be mapped by eye from these oblique photographs for the areas between the isolated take-off and landing positions.

Figure 2 : DJI Mavic 3 Enterprise on A361.

The process outlined above was repeated for 8 locations, flown over 2 days (28th and 29th January 2026), around North Moor in a clockwise direction (finishing at Burrowbridge). These eight locations are shown in Figure 3 (overleaf). Processing of the day's photographs was undertaken each evening and composite orthophotographs and the oblique photographs were sent to Neil and Corinne early the following morning. The composite orthophotographs were supplied as a Google Earth KML file as this was considered the most usable format.

Figure 3 : Composite orthophotographs from each of the eight 500m radii survey locations.

4 Survey Results

All drone photogrammetrically derived surveys have been coordinated to British National Grid and Datum using RTK corrected GPS geotags embedded into the photographs.

The flood map produced by these methods is presented in Appendix 2.

In addition the preparation of a flood map, the capture of photographic data during the flood event also enabled a fresh perspective on the pathways that flood water takes.

As part of this mapping exercise, LMCL's Hydrogeologist undertook an internet search of the Somerset levels and found an Environment Agency produced guide to "How the Somerset Moors Work" published in November 2021 (this is reproduced in Appendix 3).

The drone derived photographs provided documentary evidence of the effectiveness of the Lyng Cutting Spillway (Figures 4 & 5), the Athenley Spillway (Figures 6 & 7), and the Baltmoor Wall (Figure 8).

These features control the flow of flood waters between Curry Moor (to the south) and the survey area of Northmoor and Saltmoor.

Figure 4 (above) and Figure 5 (below)
The Lyng Cutting Spillway in action

Figure 6 (above) and Figure 7 (below) : The Athenley Spillway in action

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Figure 8 : The Baltmoor Wall holding back floodwaters of Curry Moor

5 Conclusions

The flood maps were received well by Neil Ogilvie, and in particular, Neil found the drone photograph evidence of the Lyng Cutting Spillway draining the adjacent Curry Moor into Northmoor and Saltmoor to be of particular note.

From a Project RESCUE point of view, a key finding was the difficulty in mapping the area under a PDRA-01 Operational Authorisation, and a pure BVLOS Authorisation would be much more useful. A low-level (250 feet), 2km radius BVLOS Concept of Operations has been developed as part of Project RESCUE (based upon the limitations encountered during the mapping of the flood waters during Storm Chandra).

A more weatherproof drone would also have been beneficial and since this mapping exercise for Somerset Council and Project RESCUE was undertaken, DroneSurv (Land and Minerals Consulting Limited) has invested in two IP54 rated DJI M3D drones to enable future flying in more demanding weather conditions.

As part of Project RESCUE, they have also integrated a 360° gimballed video camera into their suite of payloads for their "Trinity" VTOL fixed-wing UAS (which benefits from a 1km VLOS and 2km BVLOS-VM Operational Authorisation issued from the CAA).

Appendix 1 – DroneDesk RAMS

RAMS

Job reference: RESCUE - Real Flood

Operator ID: GBR-OP-388NJS6T44MZ

Accountable Manager: Adrian Wilkinson

Created: 28/01/2026 13:32

For: North Somerset Council

Land and Minerals Consulting Limited

(trading as QuarryDesign and DroneSurv)

Drone Operational Authorisation since 2013 (CAA # 244)

1 Service delivery information

1.1 Job details

Reference:	Planned start:	Planned end:
RESCUE - Real Fllod	28/01/2026 13:30	29/01/2026 17:00
Job class:	**Job type:**	**Operation category:**
Standard	Mapping/survey - Flood and pollution monitoring	PDRA01
Description:		
N/A		
Notes:		
N/A		

1.2 Client details

Client name:		Address:
North Somerset Council		
Client contact name:	**Email:**	**Phone:**
N/A	N/A	N/A

1.3 Job location

Reference:		Address:
West Yeo		Westonzoyland, Somerset TA7 0AU
Coordinates:		**what3words address:**
Lat, Lng (dec.):	51.0744, -2.9483	///forgot.jabs.costly
Lat, Lng:	N51°4'27.797" W2°56'53.905"	**Elevation (ft. AMSL):**
BNG:	333659, 130990	23
Grid ref.:	ST335310	

1.4 Personnel details

Remote pilot name:	Email:	Phone:
Adrian Wilkinson	adrian.wilkinson@lmcl.global	07767 323482
Pilot certifications:		
Certification	**Cert. reference**	**Expiry date**
Permission for Commercial Operations (PfCO)	BNUC-S 1409-14-12-03	31/12/2023
Flyer ID	GBR-RP-B4938R7ZG67X	19/03/2026
PfCO to GVC Conversion	GBR RP B4938R7ZG67X	11/11/2027

Additional team members:		
Dan Pestell (Pilot)	Dan.Pestell@lmcl.global	01275 543983

Certification	Cert. reference	Expiry date
Flyer ID	GBR-RP-3NWH4DQH7GXD	09/12/2027
Permission for Commercial Operations (PfCO)	COP-SU16040516	31/12/2023
PfCO to GVC Conversion	GBR-RP-3NWH4DQH7GXD	11/11/2027

1.5 Drone details

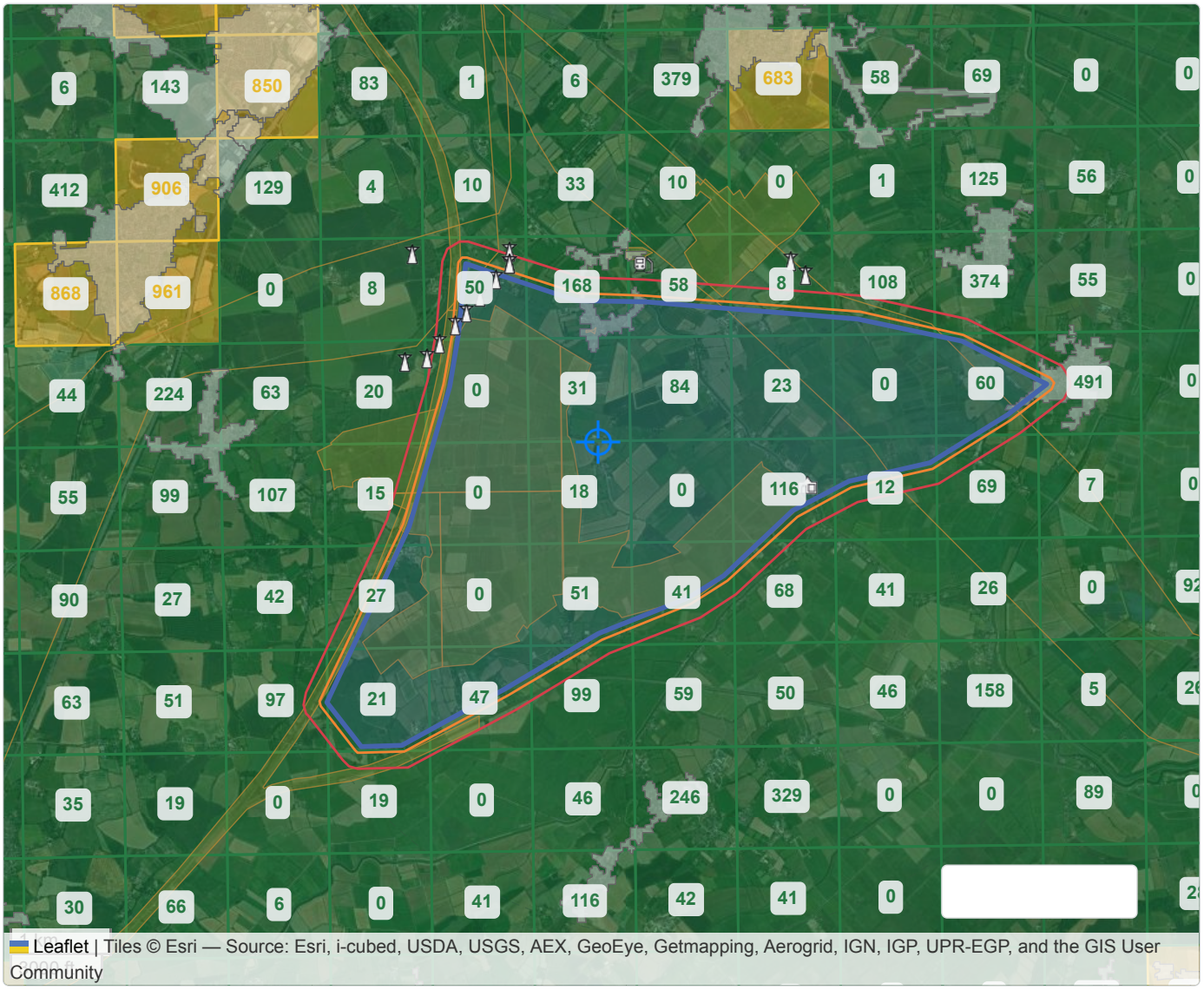
Primary drone:	Make and model:	Identifier:
M3E(5)	DJI Mavic 3E	GBR-OP-388NJS6T44MZ
Specification:		
Weight:		915 g
Diagonal size:		380 mm
Max wind resistance:		12 m/s
Max flight radius:		57 km
Max kinetic energy:		1.080 kJ

Secondary drone:	Make and model:	Identifier:
M3E(1)	DJI Mavic 3E	GBR-OP-388NJS6T44MZ
Specification:		

Weight:	915 g
Diagonal size:	380 mm
Max wind resistance:	12 m/s
Max flight radius:	57 km
Max kinetic energy:	1.080 kJ

2 Pre-deployment

2.1 Site plan



Key:	Notes:

Planned flight volume Contingency buffer (66m) Emergency buffer (156m) Route Pilot Observer/Safety marshall ToLP + 30m/50m safety zone Contingency ToLP + 30m safety zone Hazard area No-fly area Notified property/person Low-risk hazard High-risk hazard Ground Control Point Signage POI	N/A

2.2 Initial survey

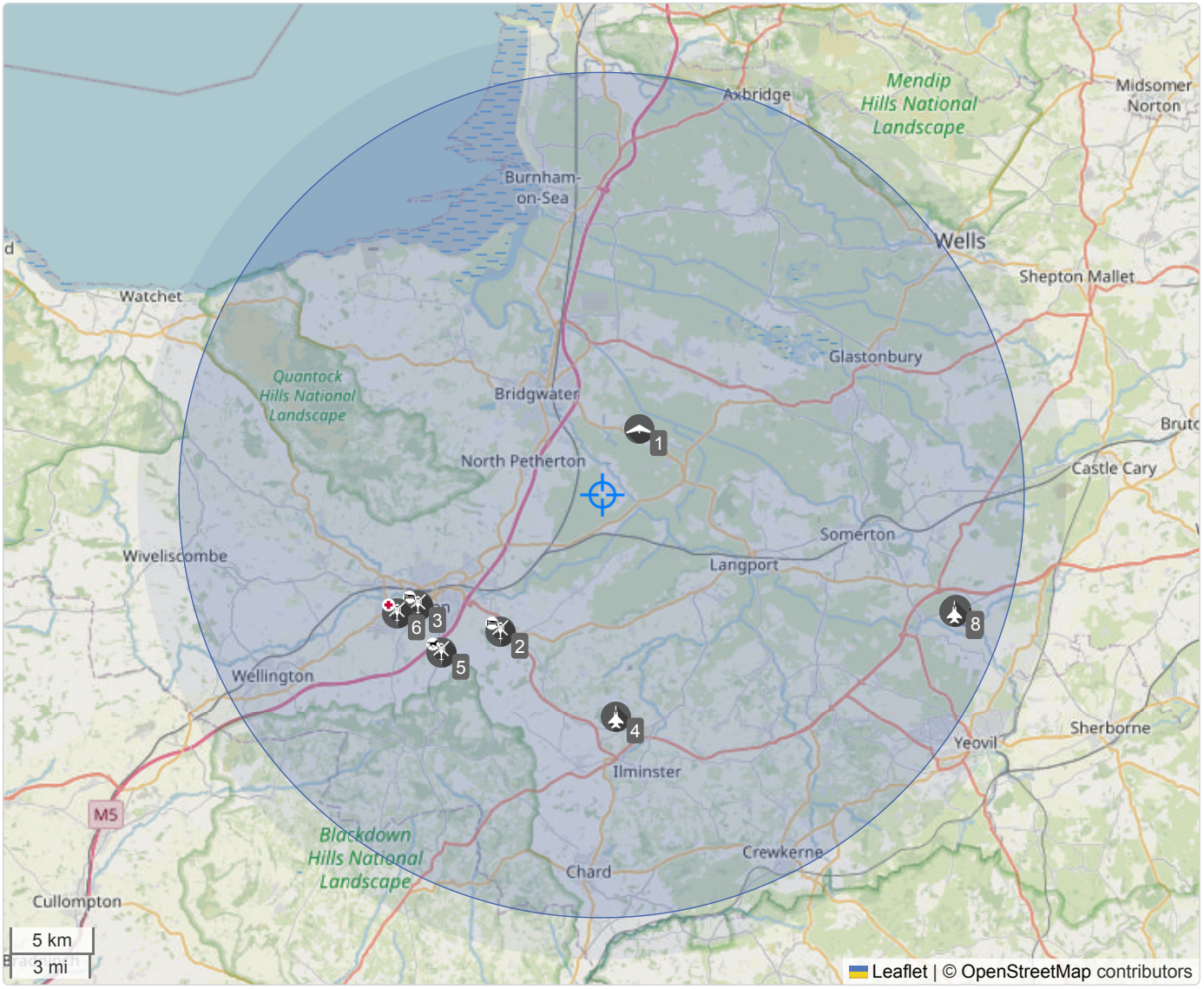
Ground hazards:	Terrain:
I'm operating over open agricultural fields bordered by hedgerows/treelines. There is a farm/industrial yard to the NW (label visible: "Winslade R & J S & Son") with multiple buildings and a track access. Several field boundaries/ditches or small watercourses are shown on the map (thin blue lines) near/through the area; exact names not shown. No railways observed. Possible mitigations: I'll keep a safe buffer from hedgerows/trees and the farm buildings, set an RTH height above the tallest trees, and avoid flying directly over the ditches/watercourses to reduce loss/recovery risk. I'll use a defined take-off/landing area in the field away from obstacles.	Predominantly flat to gently undulating farmland with a mix of grass and ploughed/harvested fields. Hedgerows/treelines can create turbulence and obscure obstacles at low level. Possible mitigations: I'll take off from a clear patch with good visibility, climb to a safe working height before manoeuvring, and plan flight lines parallel to boundaries to reduce surprise obstacles and wind shear effects.
Site access:	**Restrictions:**
Access appears via farm tracks/field gates connected to the farmyard to the NW; ground may be soft/muddy depending on season, and access could be private with locked gates. Possible mitigations: I'll pre-check access points and parking, obtain landowner permission for entry, and avoid blocking tracks. I'll bring suitable footwear and keep equipment portable in case vehicle access is limited.	No obvious restricted sites (power station, prison, hospital, school) are visible on the provided maps. Airspace restrictions can't be confirmed from these images alone. Possible mitigations: Before flight I'll check current airspace/NOTAMs (e.g., DJI Fly/Altitude Angel/CAA tools) and comply with any local restrictions, including temporary restrictions for events or emergency activity.
Sensitivities:	**Permissions:**
No nature reserve/SSSI/conservation designations are indicated on the provided map tiles. However, hedgerows and ditches may be wildlife habitat (birds) and could be sensitive seasonally. Possible mitigations: I'll avoid low passes along hedgerows, maintain separation from nesting habitat, and if I observe bird activity I'll increase altitude/terminate the flight as appropriate.	Likely requires landowner/farmer permission to take off/land and operate over the fields and near the farm premises (NW). If overflying adjacent fields, neighbouring landowners may need to be informed depending on operational plan. Possible mitigations: I'll secure written permission where possible, brief the landowner on timings and safety, and agree boundaries/no-fly areas around livestock, buildings, and machinery.
People:	**Vehicles:**

The site is rural with no congested area visible. People may be present at the farmyard (NW) or as occasional walkers on field edges (not clearly shown). Possible mitigations: I'll maintain required separation from uninvolved people, use a spotter if operating near the farmyard, and pause/land if anyone enters the operating area.	No major roads are visible; vehicle activity is most likely along farm tracks and within the farmyard to the NW. Possible mitigations: I'll avoid flying over tracks and the farmyard, keep lateral buffers to any moving vehicles, and choose flight times with minimal farm activity.
Buildings:	**Livestock:**
Buildings are concentrated at the farm/yard to the NW; the pinned location itself appears within an open field with no structures immediately adjacent. Possible mitigations: I'll keep the operation centred over the open field, set geofence/waypoint boundaries to prevent drift toward buildings, and maintain legal separation from the farm structures.	Fields in the area could contain livestock (not clearly identifiable in the satellite image at this resolution). Risk of disturbance is possible. Possible mitigations: I'll confirm livestock presence with the landowner before flight, avoid flying low over animals, and be prepared to stop operations if any signs of distress occur.
Environmental considerations:	**Other notes:**
Primary considerations are noise/disturbance to the farm and wildlife, and potential crop damage from take-off/landing or retrieving a downed drone in soft ground/ditches. Possible mitigations: I'll use the minimum necessary flight time, avoid early/late operations near residences/farm, select a firm take-off/landing spot (e.g., field margin/track verge with permission), and plan for safe recovery routes that avoid trampling crops or entering ditches.	N/A
Airspace classification:	
G	

2.3 Notifications

Establishment	Name	Email	Phone	Ref.	Notified
No notifications recorded					

2.4 Airspace users



Key	1
Name	Light Flight
Addnl.	andy@lightflight.co.uk
Heading	NNE
Dist.	4.5km
Phone	07850 942096

Key	2
Name	The Mount Somerset Hotel & Spa
Addnl.	N/A
Heading	SW
Dist.	10.1km
Phone	01823 442500

Key	3
Name	The Castle at Taunton
Addnl.	N/A
Heading	WSW
Dist.	12.7km
Phone	01823 272671

Key	4
Name	Merryfield
Addnl.	ICAO: EGDI
Heading	S
Dist.	13.1km
Phone	01460 72301 (Base Ops)

Key	5
Name	Taunton Racecourse
Addnl.	N/A
Heading	SW
Dist.	13.3km
Phone	01823 337172

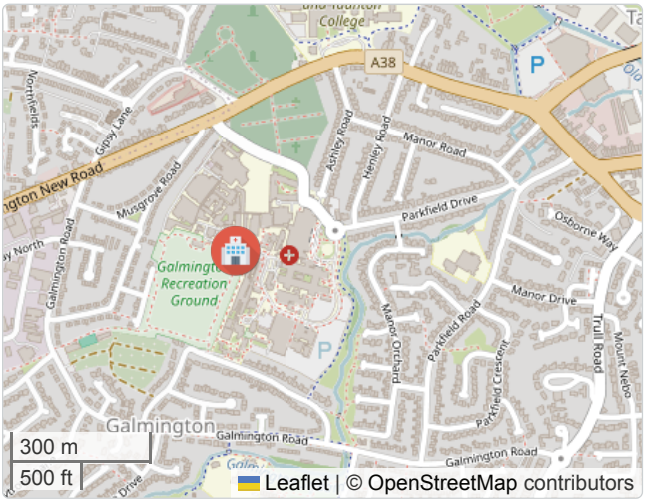
Key	6
Name	Musgrove Park Hospital
Addnl.	rwh-tr.pals@nhs.net
Heading	WSW
Dist.	14.0km
Phone	01823 333444

Key	7
Name	Yeovilton
Addnl.	ICAO: EGDY
Heading	ESE
Dist.	22.0km
Phone	01935 840565 (Base Ops)

Key	8
Name	**Heron G.C.**
Addnl.	treasurer@herongliding.co.uk
Heading	ESE
Dist.	22.1km
Phone	0330 223 4267 / 07809 727001

8 records

2.5 Emergency contacts

Nearest A&E Hospital:	
Musgrove Park Hospital Musgrove Park, Taunton TA1 5DA **Opening times** Sunday: 00:00-23:59 Monday: 00:00-23:59 Tuesday: 00:00-23:59 Wednesday: 00:00-23:59 Thursday: 00:00-23:59 Friday: 00:00-23:59 Saturday: 00:00-23:59	

Local police service:	Other useful numbers:	
Avon and Somerset Constabulary https://www.avonandsomerset.police.uk 999 101 avonandsomersetpolice aspolice	National Police Air Service:	01924 292252
	Military low flying info:	0800 515544
	NOTAM information line:	01293 983880
	National Grid powerline emergencies:	0800 40 40 90
	Gas supply emergencies:	0800 111 999
	Civil Nuclear Constabulary:	03303 135695
	British Transport Police:	0800 405040

Emergency contact notes:
N/A

2.6 Weather forecast

Weather for **Wed 28-Jan-2026**
Europe/London Standard Time

n/a ⇆ n/a

Time	Summary	Cloud cover	Visibility	Pressure	Humidity	Precip prob.	Temp (Dewpoint)	Wind (gust) Show in m/s	Wind dir.	Kp index	Okay to fly?
00:00		83%	23.4 km	988.5	87%	0%	5.2 (3.2)°C	6 (12) mph		3.33	
01:00		78%	29.6 km	989.11	90%	0%	4.6 (3.1)°C	4 (7) mph		3.33	
02:00		82%	28.5 km	989.54	92%	0%	4.1 (2.9)°C	3 (5) mph		3.33	
03:00		78%	28.0 km	989.96	92%	0%	3.6 (2.5)°C	3 (6) mph		3.33	
04:00		89%	27.6 km	990.69	94%	0%	3.2 (2.3)°C	4 (7) mph		3.33	
05:00		92%	24.5 km	991.07	95%	40%	3 (2.3)°C	5 (8) mph		3.33	
06:00		91%	21.8 km	991.36	95%	0%	3.2 (2.5)°C	6 (8) mph		3.33	
07:00		86%	25.0 km	991.89	95%	46%	3.3 (2.6)°C	5 (11) mph		2.67	
08:00		75%	25.4 km	992.16	95%	0%	3.3 (2.6)°C	3 (8) mph		2.67	
09:00		68%	25.6 km	992.52	94%	0%	3.6 (2.8)°C	3 (5) mph		2.67	
10:00		40%	24.8 km	992.74	92%	0%	5.4 (4.2)°C	5 (9) mph		3.00	
11:00		66%	25.3 km	993.16	89%	0%	6.7 (5)°C	7 (11) mph		3.00	
12:00		67%	22.0 km	993.28	86%	0%	8 (5.8)°C	8 (13) mph		3.00	
13:00		57%	23.8 km	992.88	82%	63%	8.9 (6)°C	8 (14) mph		4.00	
14:00		66%	24.3 km	992.91	81%	46%	9.1 (6)°C	8 (13) mph		4.00	
15:00		62%	29.7 km	993.34	82%	0%	8.9 (6)°C	8 (12) mph		4.00	

Time	Summary	Cloud cover	Visibility	Pressure	Humidity	Precip prob.	Temp (Dewpoint)	Wind (gust) Show in m/s	Wind dir.	Kp index	Okay to fly?
16:00		25%	30.7 km	993.72	85%	0%	8.3 (5.9)°C	7 (12) mph		4.67	
17:00		32%	27.0 km	994.27	87%	0%	7.1 (5.1)°C	7 (10) mph		4.67	
18:00		55%	28.5 km	994.77	89%	0%	6.4 (4.7)°C	8 (12) mph		4.67	
19:00		15%	27.6 km	995.07	89%	0%	5.9 (4.2)°C	8 (13) mph		3.33	
20:00		7%	28.3 km	995.32	90%	0%	5.1 (3.6)°C	7 (13) mph		3.33	
21:00		54%	28.8 km	995.45	90%	0%	4.9 (3.4)°C	9 (13) mph		3.33	
22:00		56%	28.1 km	995.46	90%	0%	5 (3.5)°C	9 (14) mph		4.33	
23:00		64%	27.3 km	995.36	91%	0%	4.8 (3.5)°C	9 (14) mph		4.33	

This weather forecast is Powered by Apple WeatherKit. The Kp index forecasts are from NOAA.

METAR

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BKN018TCU RMK BLU TEMPO WHT
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TAF

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 PROB30 TEMPO 2812/2817 13010G20KT 3500 +SHRA SCT012 BKN015CB
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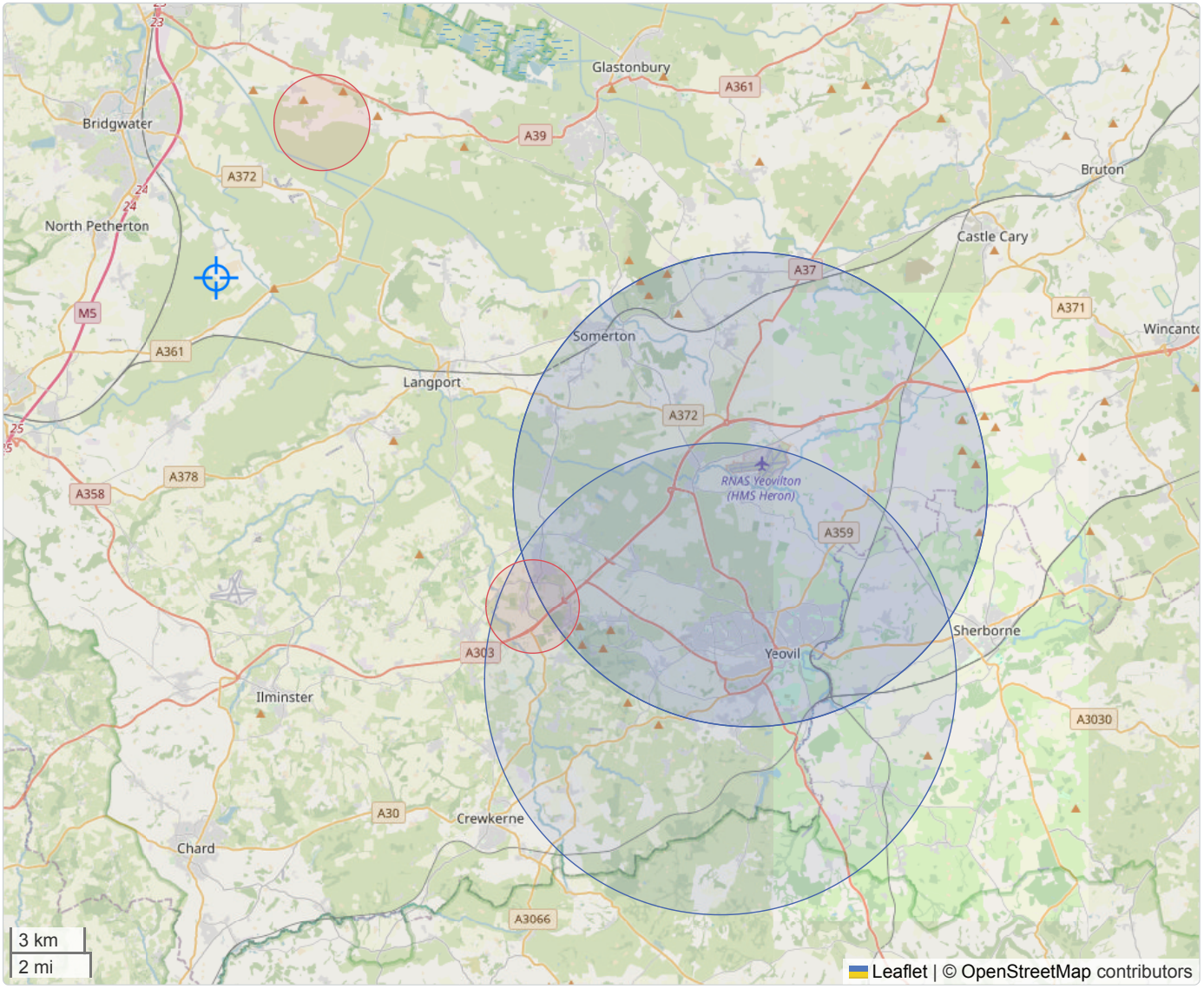
2.7 NOTAMs



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Type: OTHER (ERECTED)
Period: 2025-11-18 19:56 to 2026-02-18 23:59 Sched:
Limits: SFC to FL002
WHIPPED AERIEL OBSTRUCTION POSITION 510744N 0025322W (STAWELL, SOMERSET) IN LOW FLYING AREA 2 AND NIGHT ROTARY REGION 2 HGT 200FT AMSL (100FT AGL) UNLIT. 25/11/108/LFC
Q: EGTT/QOBCE/IV/M/E/000/002/5108N00253W001

ID: **N0030/26**
Type: OTHER (ERECTED)
Period: 2026-01-14 12:30 to 2026-04-14 12:30 Sched:
Limits: SFC to FL003
UNLIT CRANE AT PSN 505732N 0024618W (BOWER HINTON/SOMERSET) IN LOW FLYING AREA 2 AND NIGHT ROTARY REGION 2 HGT 300FT AMSL (150FT AGL). 26/01/046/LFC
Q: EGTT/QOBCE/IV/M/E/000/003/5058N00246W001

ID: **U0636/26**
Type: OTHER (OUT OF SERVICE)
Period: 2026-01-20 10:59 to 2026-03-31 23:59 Sched:
Limits: SFC to FL999
OBST LIGHTS U/S - WATER TOWER ON N SIDE OF AD 107FT AGL/333FT AMSL.

Q: EGTT/QOLAS/IV/M/A/000/999/5100N00239W005

ID: **U636/26**
Type: OTHER (OUT OF SERVICE)
Period: 2026-01-20 10:59 to 2026-03-31 23:59 Sched:
Limits: SFC to FL999
OBST LIGHTS U/S - WATER TOWER ON N SIDE OF AD 107FT AGL/333FT AMSL.
Q: EGTT/QOLAS/IV/M/A/000/999/5100N00239W005

ID: **L5703/25**
Type: PROCEDURES (CHANGED)
Period: 2025-11-06 11:35 to 2099-12-31 23:59 Sched:
Limits: SFC to FL999
MINIMA BOX SHOULD READ THE FOLLOWING. IAC NDB(L)/DME RWY 09 OCA/OCH WITH DME CAT A/B - 730(538) OCA/OCH NO DME CAT A/B - 1190(998) CIRCLING TOTAL AREA CAT A/B - 1190(988) IAC NDB(L)/DME RWY 27 OCA/OCH WITH DME CAT A/B - 860(687), SDF AT D1.9 REMOVED OCA/OCH NO DME CAT A/B - 910(737) CIRCLING TOTAL AREA CAT A/B - 910(708) UK AIP AD 2.EGHG-8-1, AD 2.EGHG-8-4 REFERS.
Q: EGTT/QPOCH/I/NBO/A/000/999/5056N00240W005

NOTAM notes:	Reviewed and non-relevant NOTAMs:
N/A	B0062/26, B0091/26, B0169/26, B0176/26, F0059/26, F0132/26, F0627/25, F1418/25

3 Post-flight

3.1 Closure checklist

No checklist found

END OF DOCUMENT

Job ID: 211a320f-cdda-4e28-9915-aa7a6b132f24

Document created in app.dronedesk.io

Appendix 2 – Drone Derived Flood Map

Legend-

- Mapped Extent of Flood
- Inferred Extent of Flood

Please Note-
The inferred extent of the flood has been digitised from oblique photos

N

SITE: 01025 Storm Chandra Flood Mapping

TITLE: Extent of Flood

SHEET SIZE	ORIGINAL SCALE	Drawn by-	Checked by-	Issued to-
A0	1:5000	DJP	APW	NO/CM
		Date- 30/01/26	Date- 30/01/26	Date- 30/01/26

Drawing No.- 01025-260128-01 | Rev.-

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Land and Minerals Consulting Limited

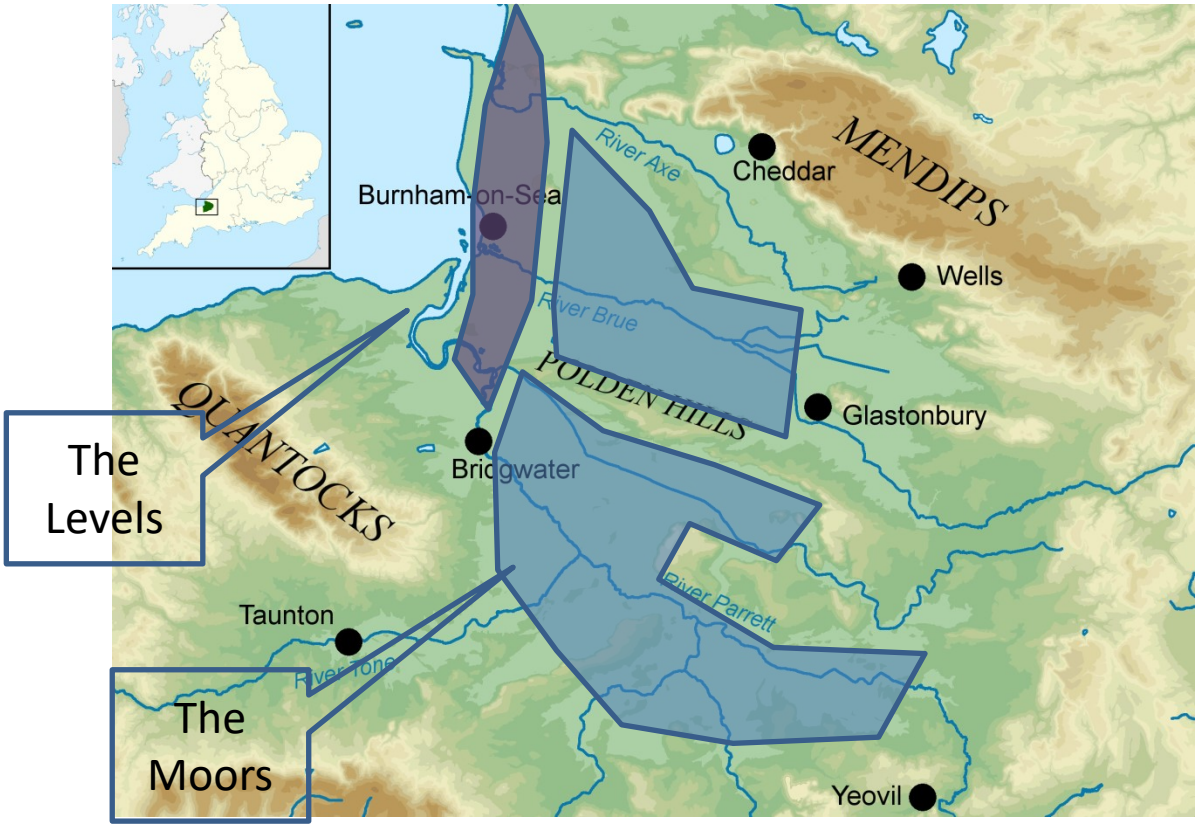
Appendix 3 – How the Somerset Moors Work

Environment Agency

How the **Somerset Moors** work

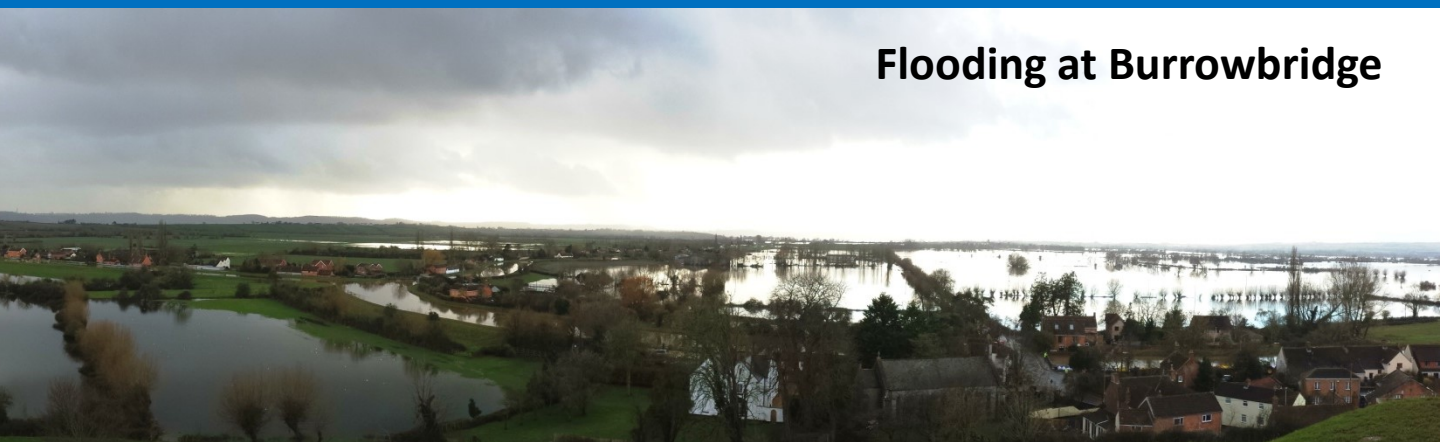
Introduction

Somerset was originally called ‘Sumersata’, which means ‘land of the summer people’. This is because the land was flooded though the winter and so its population only came down from the hills in the summer to graze their flocks. Its low-lying and flat landscape causes regular flooding even today.



The Somerset Levels and Moors consists of 'The Levels' (the higher coastal clay belt) and 'The Moors' (the low-lying basin into which the rivers overspill and flood). The lower part of the River Parrett flows through the Moors and its three main tributary rivers, the Tone, the Yeo and the Isle also flow through parts of the Moors.

The following pages show how the Parrett and Tone Moors flood and how water is moved around. Brue and Axe Moors are not dealt with. It's a complex interaction of embanked rivers, Moors, spillways, sluice gates and pumping stations.



Flooding at Burrowbridge

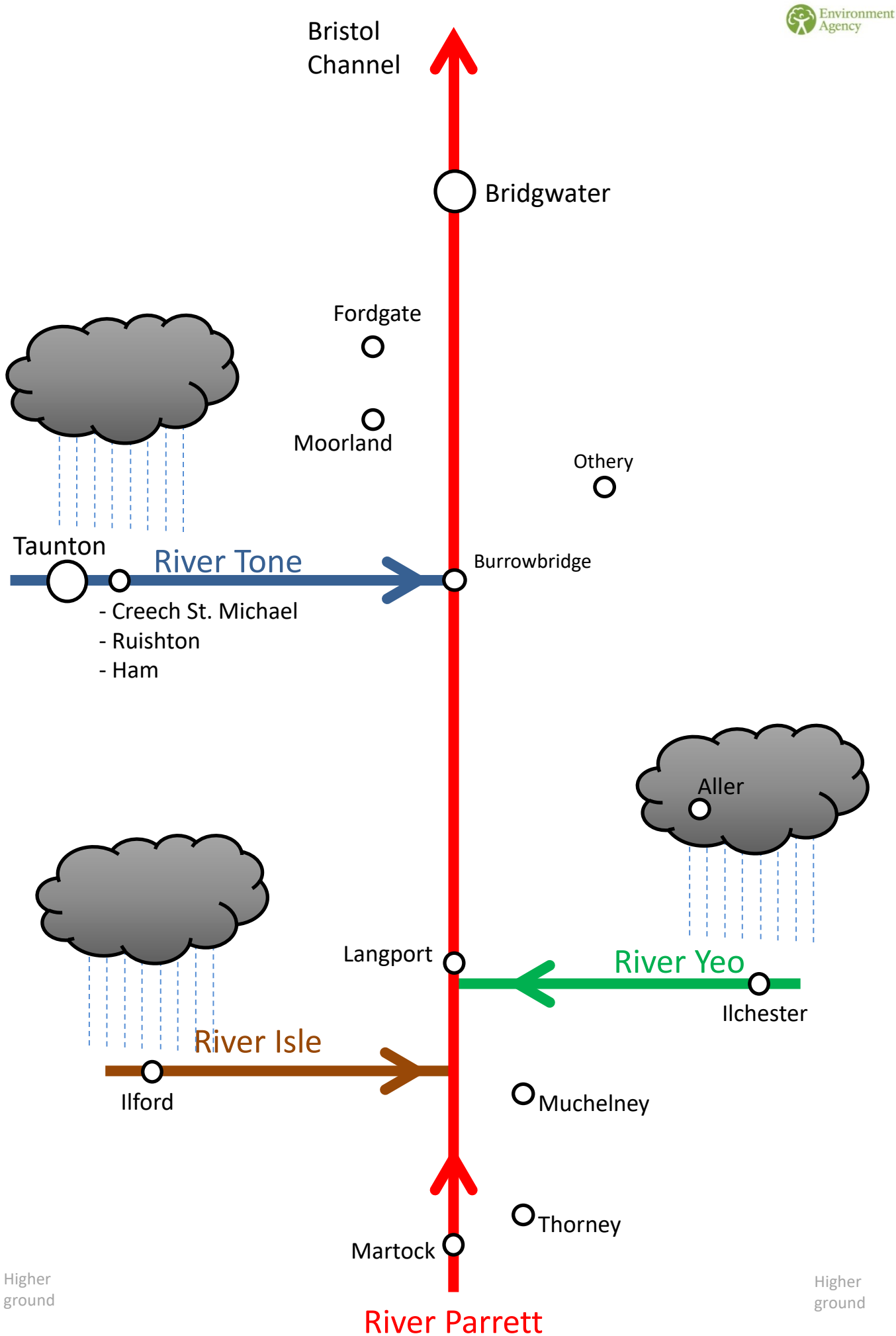
A typical flood on the Somerset Moors

1.

It starts to rain.

2.

Water drains from the high ground and down the main rivers, which are the Tone, Yeo, Isle and Parrett. Where these rivers cross the Moors they act as “high level carriers” and in many places they are embanked (raised banks higher than surrounding land). At times of high flow their principal function is to take water from the high ground to the sea by gravity discharging into the Severn Estuary.

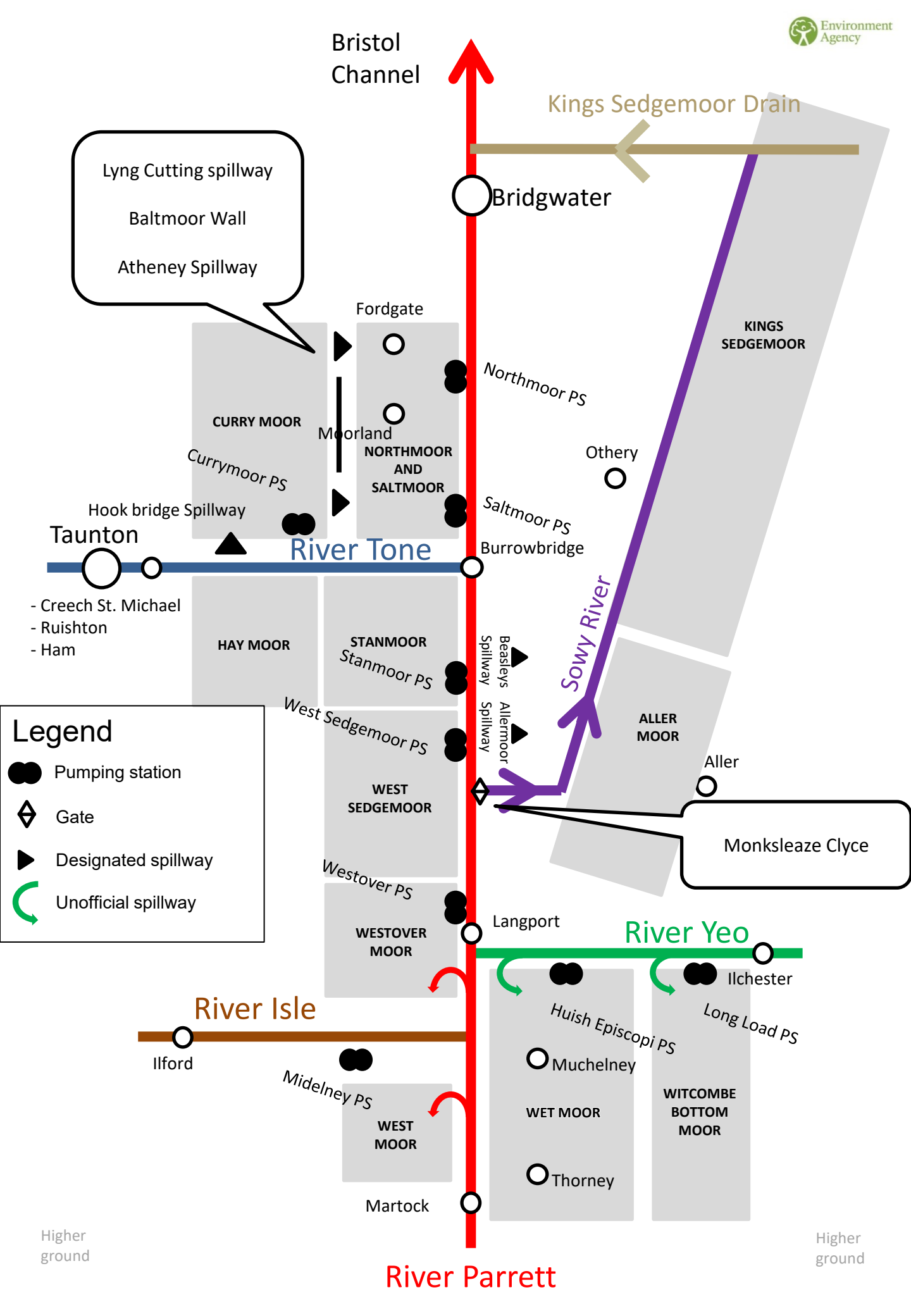

Environment Agency
Bristol Channel
Bridgwater
Fordgate
Moorland
Othery
Taunton
River Tone
Burrowbridge
- Creech St. Michael
- Ruishton
- Ham
Aller
Langport
River Yeo
Ilchester
River Isle
Ilford
Muchelney
Thorney
Martock
River Parrett
Higher ground
Higher ground

3.

If the embanked rivers become full, they start spilling into the adjacent moors. On the River Tone, the Hook Bridge Spillway starts spilling into Curry and Hay Moors and they fill up together.
Similarly the Rivers Yeo, Isle and Parrett can spill into the Moors upstream of Langport Bridge e.g. Witcombe Bottom, Wet Moor, West Moor and Huish Level.

Flooding at Muchelney

Taken by The Royal Navy (http://www.royalnavy.mod.uk/)

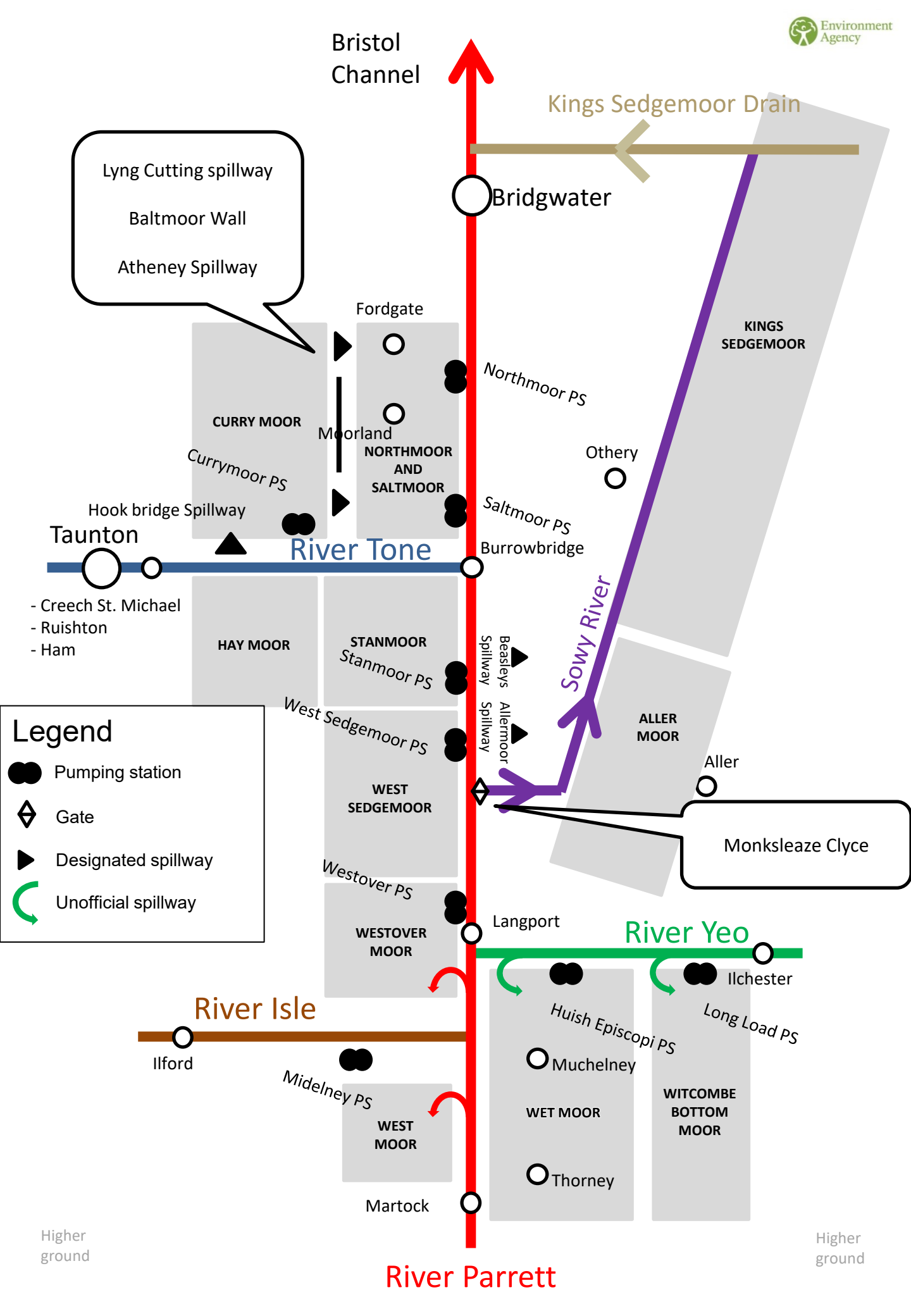

Environment Agency
Bristol Channel
Kings Sedgemoor Drain
Lyng Cutting spillway
Baltmoor Wall
Atheney Spillway
Bridgwater
Fordgate
KINGS SEDGEMOOR
Northmoor PS
CURRY MOOR
Moorland
NORTHMOOR AND SALTMOOR
Othery
Currymoor PS
Saltmoor PS
Hook bridge Spillway
Taunton
River Tone
Burrowbridge
- Creech St. Michael
- Ruishton
- Ham
HAY MOOR
STANMOOR
Stanmoor PS
Beasleys Spillway
Sowy River
West Sedgemoor PS
Allermoor Spillway
ALLER MOOR
Aller
WEST SEDGEMOOR
Monksleaze Clyce
Westover PS
Langport
River Yeo
WESTOVER MOOR
Ilchester
Huish Episcopi PS
Long Load PS
River Isle
Muchelney
Ilford
Midelney PS
WET MOOR
WITCOMBE BOTTOM MOOR
WEST MOOR
Thorney
Martock
Higher ground
Higher ground
River Parrett
Legend
Pumping station
Gate
Designated spillway
Unofficial spillway

4.

If the Parrett is bank full downstream of Langport, Allermoor and Beazleys Spillway start spilling into the Sowy River. As soon as Beazleys and Allermoor start spilling, we turn off the pumping stations at Long Load, Huish Episcopi, Midelney and Westover.

The River Parrett flowing through Great Bow Bridge at Langport

Taken by Jeremy Pidgeon of *"Control This View"* (www.controlthisview.co.uk)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Baltmoor Wall
Atheney Spillway
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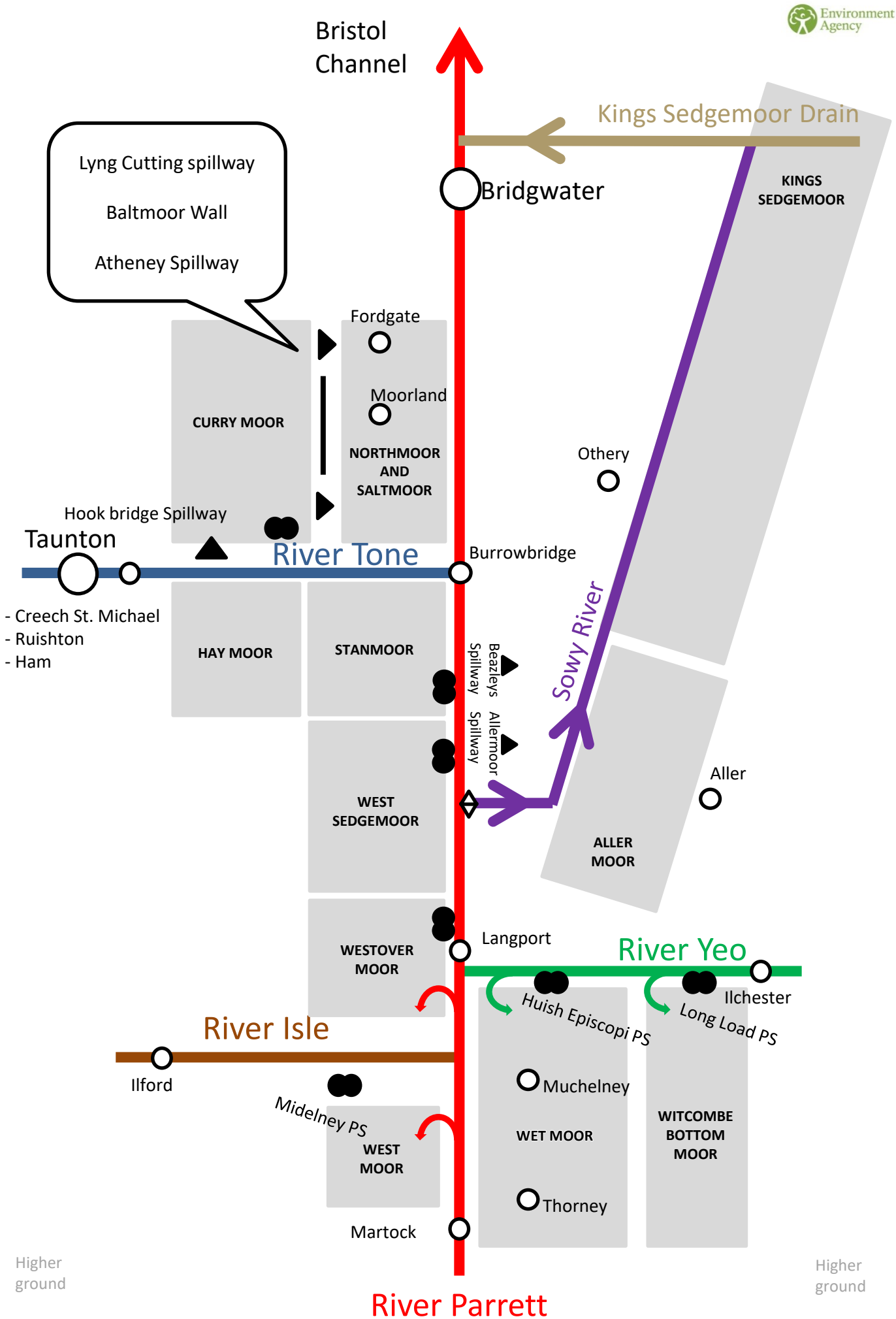
Fordgate
KINGS SEDGEMOOR
Northmoor PS
CURRY MOOR
Moorland
NORTHMOOR AND SALTMOOR
Othery
Currymoor PS
Saltmoor PS
Hook bridge Spillway
Taunton
River Tone
Burrowbridge
- Creech St. Michael
- Ruishton
- Ham
HAY MOOR
STANMOOR
Stanmoor PS
Beasleys Spillway
Sowy River
West Sedgemoor PS
Allermoor Spillway
ALLER MOOR
Aller
WEST SEDGEMOOR
Monksleaze Clyce
Westover PS
Langport
River Yeo
WESTOVER MOOR
Ilchester
Huish Episcopi PS
Long Load PS
River Isle
Muchelney
Ilford
Midelney PS
WET MOOR
WITCOMBE BOTTOM MOOR
WEST MOOR
Thorney
Martock
Higher ground
Higher ground
River Parrett
Legend
Pumping station
Gate
Designated spillway
Unofficial spillway

5.

The capacity of the Parrett at Burrowbridge is affected by the combined flow of the Parrett and the Tone whose confluence is just upstream of the bridge.

Flooding at Burrowbridge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Atheney Spillway
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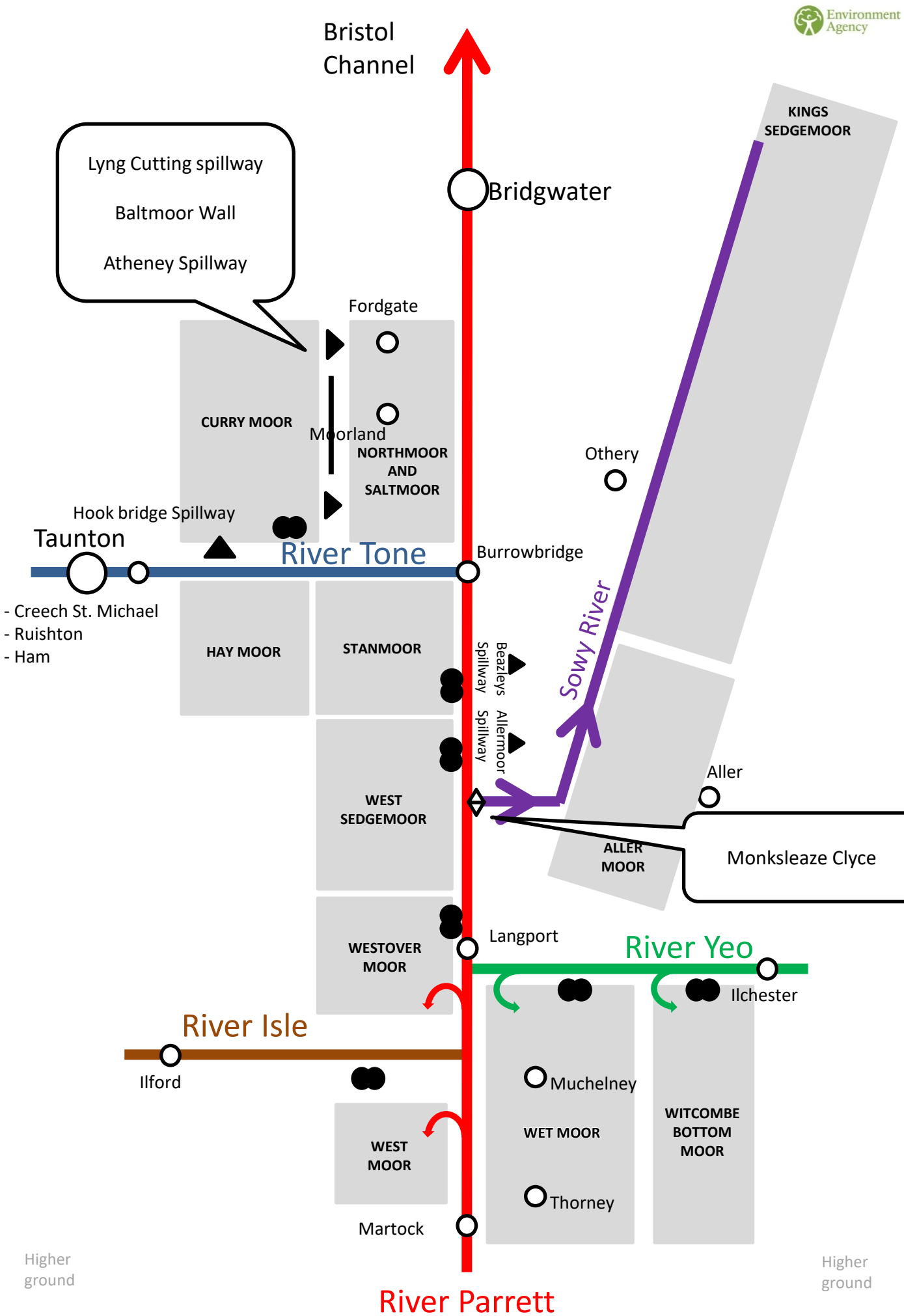
KINGS SEDGEMOOR
Fordgate
Moorland
CURRY MOOR
NORTHMOOR AND SALTMOOR
Othery
Hook bridge Spillway
Taunton
River Tone
Burrowbridge
- Creech St. Michael
- Ruishton
- Ham
HAY MOOR
STANMOOR
Beazleys Spillway
Allermoor Spillway
Sowy River
Aller
WEST SEDGEMOOR
ALLER MOOR
WESTOVER MOOR
Langport
River Yeo
Ilchester
Huish Episcopi PS
Long Load PS
River Isle
Ilford
Muchelney
Midelney PS
WEST MOOR
WET MOOR
WITCOMBE BOTTOM MOOR
Thorney
Martock
Higher ground
Higher ground
River Parrett

6.

When Beazleys and Allermoor stop spilling, we can open up Monksleaze Clyce and send flood water down the Sowy River along the King's Sedgemoor Drain and into the Parrett at Dunball, downstream of Bridgwater. This allows us the capacity in the system to resume pumping at the stations upstream of Langport (Long Load, Huish Episcopi, Midelney and Westover).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Fordgate
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Moorland
NORTHMOOR AND SALTMOOR
Othery
Hook bridge Spillway
Taunton
River Tone
Burrowbridge
- Creech St. Michael
- Ruishton
- Ham
HAY MOOR
STANMOOR
Beazleys Spillway
Allermoor Spillway
Sowy River
WEST SEDGEMOOR
Aller
ALLER MOOR
Monksleaze Clyce
WESTOVER MOOR
Langport
River Yeo
Ilchester
River Isle
Ilford
Muchelney
WET MOOR
WITCOMBE BOTTOM MOOR
WEST MOOR
Thorney
Martock
Higher ground
Higher ground
River Parrett

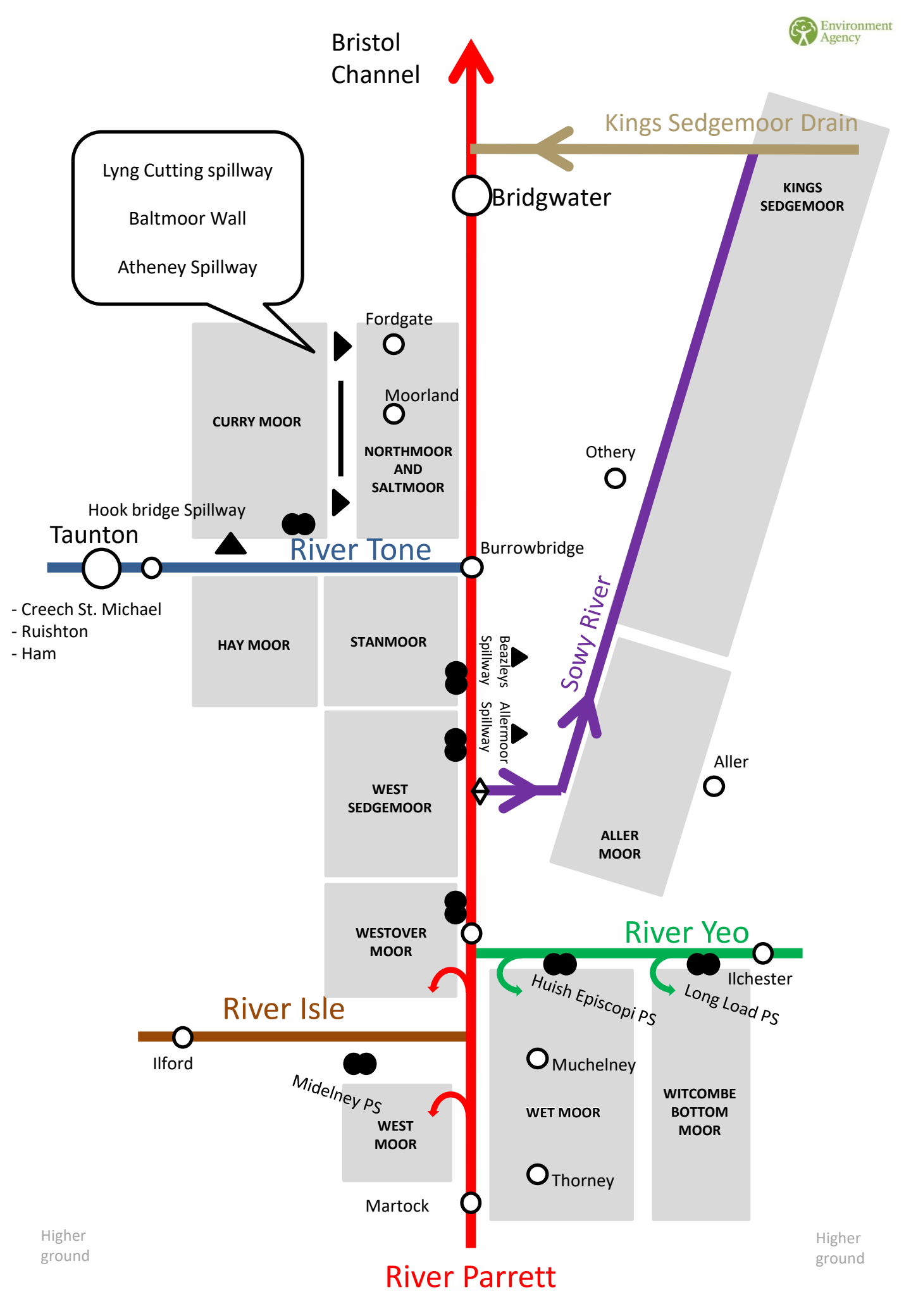
7.

As Curry and Hay Moors fill, they in turn start spilling into Northmoor and Saltmoor via the Lyng Cutting Spillway and then Athelney Spillway and then ultimately Baltmoor Wall.

Lyng Cutting spillway

Athelney spillway

Baltmoor Wall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CURRY MOOR
NORTHMOOR AND SALTMOOR
Othery
Hook bridge Spillway
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River Tone
Burrowbridge
- Creech St. Michael
- Ruishton
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HAY MOOR
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Beazleys Spillway
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Aller
ALLER MOOR
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River Yeo
Ilchester
Huish Episcopi PS
Long Load PS
River Isle
Ilford
Muchelney
Midelney PS
WET MOOR
WITCOMBE BOTTOM MOOR
WEST MOOR
Thorney
Martock
Higher ground
Higher ground
River Parrett

8.

As Northmoor and Saltmoor start filling, properties in Moorland and Fordgate are at risk of flooding. We then increase the pumping capacity of Saltmoor and Northmoor pumping stations with additional temporary pumps. If rainfall continues to impact the area, Bridgwater is at risk from rising flood water in Northmoor spilling northwards between the canal and the banks of the River Parrett.

Saltmoor pumping station with additional pumps

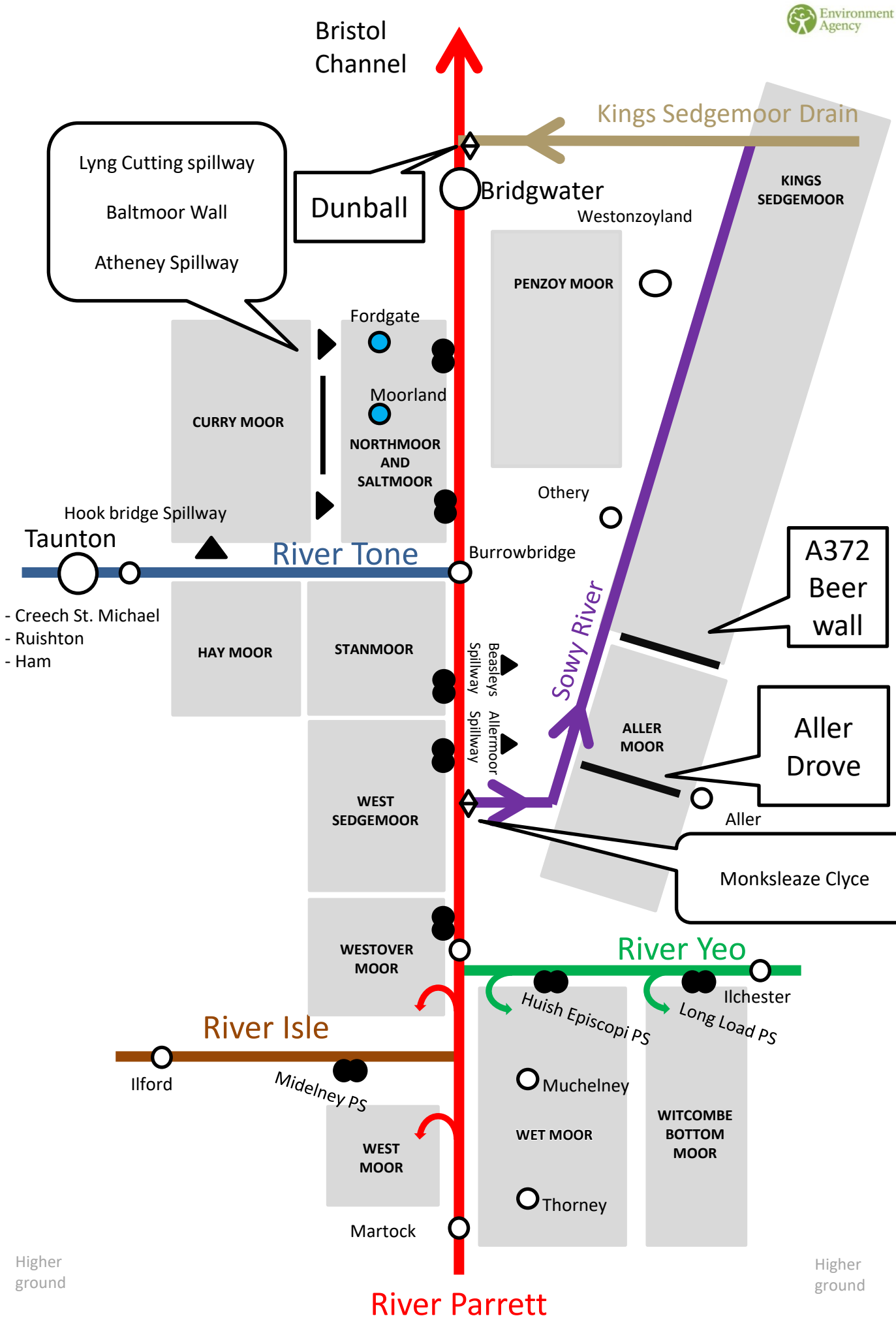
Taken by The Royal Navy (http://www.royalnavy.mod.uk/)

9.

If Hookbridge Spillway on the Tone stops running, we can start Currymoor pumping station to lower the levels in Curry and Hay moors which will stop spilling into Northmoor and Saltmoor.

Hookbridge Spillway

Currymoor pumping station with additional pumps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Fordgate
Moorland
CURRY MOOR
NORTHMOOR AND SALTMOOR
Othery
Hook bridge Spillway
Taunton
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Burrowbridge
A372 Beer wall
- Creech St. Michael
- Ruishton
- Ham
HAY MOOR
STANMOOR
Beasleys Spillway
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WEST SEDGEMOOR
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Ilchester
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Long Load PS
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Ilford
Midelney PS
Muchelney
WET MOOR
WITCOMBE BOTTOM MOOR
WEST MOOR
Thorney
Martock
Higher ground
Higher ground
River Parrett

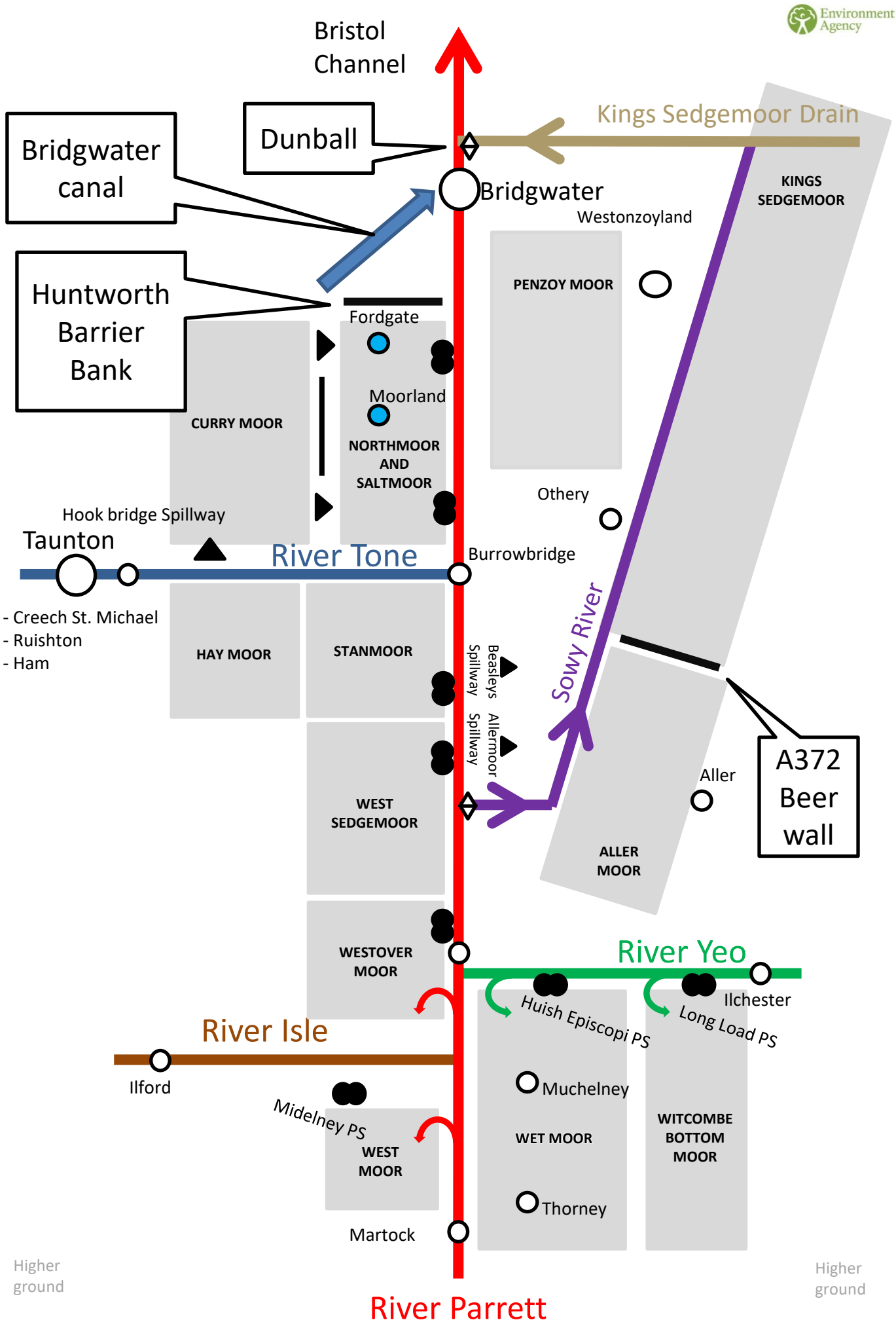
Emergency Process

1.

If it continues to rain for a prolonged period of time, Northmoor and Saltmoor will continue to fill

2.

To allow the level in the Tone to drop, we need to lower the level of the River Parrett. To lower the level in the River Parrett, we have to send Parrett water down the Sowy Flood Relief Channel, into the King's Sedgemoor Drain and out to Dunball. To do this, we need to open Monksleaze Clyce. Additional pumping may be required at Dunball to overcome tide-locking.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Dunball
Bridgwater canal
Bridgwater
Westonzoyland
KINGS SEDGEMOOR
PENZOY MOOR
Huntworth Barrier Bank
Fordgate
Moorland
CURRY MOOR
NORTHMOOR AND SALTMOOR
Othery
Hook bridge Spillway
Taunton
River Tone
Burrowbridge
- Creech St. Michael
- Ruishton
- Ham
HAY MOOR
STANMOOR
Beasleys Spillway
Allermoor Spillway
Sowy River
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Huish Episcopi PS
Long Load PS
River Isle
Ilford
Muchelney
Midelney PS
WEST MOOR
WET MOOR
WITCOMBE BOTTOM MOOR
Thorney
Martock
Higher ground
Higher ground
River Parrett

As Northmoor and Saltmoor continue to fill, a barrier bank is required at Huntworth with additional pumping capacity. Water will spill into the Bridgwater Canal and additional pumping capacity is required where the canal enters Bridgwater Docks so that we can discharge this flow into the River Parrett.

3.

Construction of the Huntworth Barrier Bank

Pumps at Dunball

Taken by Jeremy Pidgeon of *"Control This View"*
(www.controlthisview.co.uk)

Operational Flood Infrastructure

Beazleys Spillway

Allermoor Spillway

Photo shows A372 at Beer wall and additional pumping before improvements were made after 2013-14 flooding.

Northmoor pumping station and additional pumping

Westonzoyland pumping station and additional pumping

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08-11-2021 – Version 4
Edward Mellor, Melvin Wood, Antony Ryan and Adrian Govier

APPENDIX 4 - Glossary of Terms & Acronyms

The following is a list of acronyms used within this document.

BSc(Hons)	**B**achelor of **Sc**ience. A university qualification in science that can be granted with or without honours.
BEng(Hons)	**B**achelor of **Eng**ineering. A university qualification in engineering that can be granted with or without honours.
BVLOS	**B**eyond **V**isual **L**ine **o**f **S**ight.
CAA	**C**ivil **A**viation **A**uthority. The national aviation regulator who also oversees the registration of drones and drone pilots in their airspace jurisdiction.
CICES	**C**hartered **I**nstitute of **C**ivil **E**ngineering **S**urveyors. A professional institution for surveyors. Membership grades are Associate Apprentice (ACInstCES), Graduate (GCInstCES), Technical Member (TCInstCES), Member (MCInstCES) and Fellow (FCInstCES)
DTM	**D**igital **T**errain **M**odel. A survey / model of the ground where surface features (buildings trees etc) are removed.
DSM	**D**igital **S**urface **M**odel. A survey / model where surface features (buildings trees etc) are retained.
ETRS89	**E**uropean **T**errestrial **R**eference **S**ystem 19**89**.
GNSS	**G**lobal **N**avigation **S**urvey **S**ystem. A survey system that uses satellite signals to enable a precise location on the earth to be determined. A high locational accuracy is obtained by logging satellite data over as long a period of time as possible from a Base Station. A radio connected Rover is used to collect survey data receiving correctional data from the Base Station. If there is a stable mobile phone signal, the GNSS equipment can be simplified such that the Rover receives correction data via the mobile phone network (see RTK).
GSL	The **G**eological **S**ociety of **L**ondon. The professional institution for geologists. All graduates are elected as Fellows (FGS) and those with sufficient experience can apply for Chartered Geologist (C.Geol) and European Geologist (Eur.Geol).
GVC	**G**eneral **V**isual line of sight **C**ertificate. A UK qualification to permit drone flying in the Specific Category (outside of the Open Category).
I•M3 / IOM³	**I**nstitute **o**f **M**aterials, **M**inerals and **M**ining. A professional institution for geologists and engineers working in a wide variety of industrial sectors. Membership grades are Associate (AIMMM), Technician (TIMMM), Member (MIMMM), and Fellow (FIMMM).
LiDAR	**Li**ght **D**etection **A**nd **R**anging.
LMCL	**L**and and **M**inerals **C**onsulting **L**imited. A UK registered company (N° 5269248) and holding the registered trading names of QuarryDesign® and DroneSurv®.
MEng	**M**aster of **Eng**ineering. A higher level post graduate qualification in engineering.
mAOD	**m**etres **A**bove **O**rdnance **D**atum (metres above sea level using the UK Datum of mean high water spring tides at Newlyn, Cornwall)
MSc	**M**aster of **Sc**ience. A higher level post graduate qualification in science.
NASA	**N**ational **A**eronautics and **S**pace **A**dministration.
OSC	**O**perating **S**afety **C**ase. A flight operations manual submitted to the CAA to enable

	flying in the Specific Category (anything other than the Open Category).
PERC	**P**an-**E**uropean **R**eserves & resources reporting **C**ommittee.
PGDip	**P**ost-**G**raduate **Dip**loma. A post graduate qualification of approximately 2/3rds of a Master of Science.
QDP	**Q**uarry **D**evelopment **P**lan. A 3D model of the quarry that can be used to calculate reserves by bench or by area and plan major investments needed to operate the quarry safely and cost-effectively.
PPK	**P**ost **P**rocessed **K**inematic. A method of precisely geotagging photographs using a GNSS Base Station.
RAeS	**R**oyal **Ae**ronautical **S**ociety. The professional institution for aeronautical engineers and those working in the aerospace sector. Membership grades are Associate (ARAeS), Member (MRAeS) and Fellow (FRAeS).
ROV	**R**emotely **O**perated **V**ehicle.
RTK	**R**eal **T**ime **K**inematic. A correction to GNSS survey systems using a mobile phone correction service.
SLAM	**S**imultaneous **L**ocalisation **A**nd **M**apping. A mobile LiDAR scanner that can be hand-held, backpack wearable, vehicle mountable, ROV mountable and UAS mountable. It is less accurate and has a lower resolution than a TLS system.
SRTM	**S**huttle **R**adar **T**omography **M**ission. A DTM produced by NASA and the USGS using radio waves collected by the Space Shuttle Endeavour during the STS-99 mission. Its resolution is 3 arc seconds equivalent to a 90 grid spacing.
TLS	**T**errestrial **L**iDAR **S**ystem. A high-resolution, tripod mounted LiDAR scanner.
UAS	**U**ncrewed **A**erial **S**ystem. Commonly referred to as a 'drone'. Generally used for inspection purposes, but aircraft carrying quality cameras and able to determine its precise location can be used to produce accurate photogrammetric surveys. Some larger systems also carry LiDAR.
USGS	**U**nited **S**tates **G**eological **S**urvey.
UTM	**U**niversal **T**ransverse **M**ercator is a projected coordinate system based on the transverse Mercator map projection of the Earth.
VLOS	**V**isual **L**ine **o**f **S**ight.
VTOL	**V**ertical **T**ake-**o**ff and **L**anding. Usually refers to an fixed-wing aircraft that can unusually take off and land vertically (rather than needing a runway). Most multi-rotor drones naturally take of and land vertically so this term is not usually applied to them

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