

TRIGGERED BY MONITOR NODE

MODERATE CAM-1 • Cam-Baits Bite risk score 34%

3 200 residents at risk

Source: EA gauge E2043 + IsolationForest

Proposed action: Adjust pump PS-CAM-001 to 44% capacity

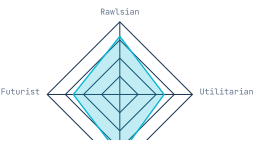
AFFECTED COMMUNITIES

Group	Location	People	Impact	SPHERE
Upstream residents (flood zone B)	Cambridge – Fen Road & Coleridge	3 200	Flood risk reduced by 49%	✓
Downstream village	Grantchester & Trumpington	1 100	Flow unaffected	✓

RAWLSIAN80%

Worst-off population

Pump at 44% protects flood zone B (worst-off group). Downstream flow unaffected. Rawlsian...



WATERPRISM River Cam • Cambridge Prisms: Water

LIVE • 21.58.15

Net welfare: 1568 upstream protected vs 0 downstream harmed. Total net positive ...

DEONTOLOGICAL84%

Rule compliance

EA Flood Risk Management Act 2010 duty of care met. WFD Art.4 ecological flow obligation...

FUTURIST64%

Long-term resilience

Within safe operating band ($\leq 82\%$). Aquifer recharge unaffected.

ALL (18)			HUMANITARIAN	EQUITY	FLOOD	DROUGHT	QUALITY	PUMP	ARCTIC_FLOOD_RULE	STORM_PRECU
KB-001	SPHERE Survival Minimum – Drinking Water	HUMANITARIAN v1								
KB-002	SPHERE Basic Needs – Personal Hygiene	HUMANITARIAN v1								
KB-003	Rawlsian Maximin Principle	EQUITY v1								
KB-004	Geographic Equity – Upstream/Downstream Cascade Constraint	EQUITY v1								
KB-005	EA Flood Warning – Gauge Threshold	FLOOD v1								
KB-006	GloFAS 5-Year Return Period Threshold	FLOOD v1								
KB-007	Streamflow Drought Index – Severe Drought	DROUGHT v1								
KB-008	WHO Turbidity Guideline Value	QUALITY v1								
KB-009	Energy-Water Nexus Peak Demand Shaving	PUMP v1								
KB-010	Distribution Network Pressure Zone Balancing	PUMP v1								

HIS · AUDIT TRAIL				APPROVED 15	BLOCKED 10
Full decision provenance · symbolic + neural · every evaluation logged					
APPROVED	18.57.59	EthicsEngine	no rules		
APPROVED	18.57.34	EthicsEngine	no rules		
APPROVED	18.57.14	EthicsEngine	no rules		
APPROVED	18.56.54	EthicsEngine	no rules		
APPROVED	18.56.34	EthicsEngine	no rules		
APPROVED	18.56.14	EthicsEngine	no rules		
APPROVED	18.55.54	EthicsEngine	no rules		
APPROVED	18.55.34	EthicsEngine	no rules		
APPROVED	18.55.14	EthicsEngine	no rules		
BLOCKED	18.54.54	EthicsEngine	1 rule		
KB-004					
NEURAL – ISOLATIONFOREST_HEURISTIC_V1					

Anomaly score

Classification

4%

NORMAL

pump_pct: 82.00 flood_score: 0.58 drought_score: 0.28 quality_score: 0.21

SYMBOLIC - 18 RULES EVALUATED

~~up 80%~~ Geographic Equity - Upstream/Downstream Cascade Constraint

critical