

Former Princess Alice Public House

Summary Information	
Site Reference	P5-TA3
Address	2A Battery Road, London SE28 0JS
Area (ha)	0.27
Current Use	Former public house with some surrounding green space.
Current Vulnerability	Less Vulnerable
Proposed Use	Residential with ground floor commercial use.
Proposed Vulnerability	More Vulnerable

Current Risk Summary					
Fluvial / Tidal			Groundwater		
FZ2	0.00	% of site	Limited potential for flooding to occur	0.00	% of site
FZ3a	100	% of site	Potential for flooding of properties below ground level	100	% of site
FZ3b	0.00	% of site	Potential for flooding to occur at surface	0.00	% of site
Surface Water			Sewer Flooding		
High	0.00	% of site	Number of incidents within the predominant postcode	10 - 20	
Medium	0.00	% of site	Is the site located within the Thamesmead area?	No	
Low	0.00	% of site			
Flood Defences			Flood Warning Area		
The site is at risk of flooding from rivers taking into account the presence and condition of flood defences according to the EA's RoFRS layer.			The EA Flood Warning Service is available at this site.		

See webmap supporting assessment: [Greenwich - Level 1 and 2 SFRA](#)



1.1 Tidal

Description of Flood Mechanism
The site is at risk of tidal breach flooding from the River Thames which is located approximately 450m northwest of the site at its closet point. The entire site is inundated in all Thames Downriver modelled events.
Mitigation / FRA Requirements
• A FRA must be submitted as part of a planning application. • Include appropriate flood resistance or resilience measures to address predicted flood depths. • See SFRA Level 2 Report mitigation requirement numbers 4.3 and 4.4, Policies E2 and E3 of the existing Greenwich Local Plan, and Policy EN6 of the draft Local Plan for further development stipulations. • Site users should be signed up to the EA's Flood Alert and Flood Warning Service. • Sea Level Allowances, provided by the EA, should be considered to inform flood resilient construction and design measures. • The development should allow for safe, dry access to high ground as the extent of inundation covers the entire site.
Climate Change Considerations
During the Thames Breach Downriver 1 in 200 year events, there is no change in the extent due to climate change as the site remains fully inundated. The maximum depth increases from 1.59m to 2.67m, the maximum velocity increases from 1.60m/s to 1.76m/s, the maximum flood level increases from 3.47mAOD to 4.55mAOD and the maximum hazard increases from 2.17 to 2.41. During the Thames Breach Downriver 1 in 1000 year events, there is no change in the extent due to climate change as the site remains fully inundated. The maximum depth increases from 1.86m to 2.97m, the maximum velocity increases from 1.73m/s to 1.77m/s, the maximum flood level increases from 3.74mAOD to 4.85mAOD and the maximum hazard increases from 2.20 to 2.59.

Risk Assessment (Tidal – Thames Breach Downriver 2018)					
Parameter	2005_0200	2005_1000	2115_0200	2115_1000	Units
Max. Depth	1.59	1.86	2.67	2.97	m
Max. Velocity	1.60	1.73	1.76	1.77	m/s
Max Flood Level	3.47	3.74	4.55	4.85	m AOD
Max Ground Level	2.98	2.98	2.98	2.98	m AOD
Min Ground Level	1.88	1.88	1.88	1.88	m AOD
Max Flood Hazard	2.17	2.20	2.41	2.59	N/A



1.2 Sewer

Risk Assessment	Mitigation Requirements
The site falls within a postcode area where there are 10 - 20 reported flood incidents from sewer flooding. The site is assumed to be served by separate surface water and foul sewer networks, given their proximity to the site.	The applicant must consult with TWUL to confirm if the development site has historically flooded. TWUL must agree to any proposed sewer connections. If historic flooding has occurred, the applicant must demonstrate how this risk will be managed throughout the development's lifetime.

1.3 Groundwater

Risk Assessment	Mitigation Requirements
This site has potential for flooding of properties below ground level. The site is underlain by Thanet Sand Formation bedrock geology and the superficial deposits are comprised of Alluvium.	For new developments that involve groundworks, especially if basements are planned, the applicant should carry out a screening study (as a minimum) to establish if there are any subterranean flood risk issues that may require further investigation. If there is a potential level of impact, mitigation actions must be proposed. This must be prepared by a chartered professional or specialist.

1.4 Artificial

Risk Assessment	Mitigation Requirements
This site is at risk of flooding from the Lockwood reservoir. The reservoir extent map predicts that if this reservoir breaches on a wet day, the site will be at risk of flooding.	Propose appropriate and proportionate risk management measures. A suitable emergency response plan should be put in place, including an emergency warning system in the event of a reservoir flooding incident. Local Authority Emergency Planning Officers must be consulted to create a reservoir failure emergency and evacuation plan.



1.5 Planning Considerations – Safety of Development

A.	Can the development be future proofed for climate change considerations?
	• The site has no identified fluvial or surface water flood risk. • The site remains fully inundated in the Thames Tidal Breach Downriver modelled scenarios and therefore there is no change in the extent due to climate change. The maximum depth, velocity and flood hazard increase in a climate change scenario. • See SFRA - Level 2 Report Section 4 mitigation requirement number 4.4 for the required flood resistant / resilient building stipulations.
B.	Can the development be designed safe throughout its lifetime without increasing flood risk elsewhere?
	• The development must use surface water drainage techniques to manage surface water runoff onsite through above ground SuDS and / or below ground attenuation. • Green drainage infrastructure should be prioritised to provide wider ecological / biodiversity benefits as per London Plan Policy SI 13. • See SFRA - Level 2 Report Section 4 mitigation requirement numbers 4.3, 4.7, 4.8, 4.9 and 5.0, Policies E2, E3 of the Greenwich Local Plan and Policy EN6 of the draft Local Plan for further development stipulations.
C.	What is the cumulative impact of the development land use change and will flood risk increase?
	• The development land use is changing from 'Less Vulnerable' to 'More Vulnerable'. • The site is predominantly permeable, with impermeable areas concentrated in the central part of the site, comprising the existing building and its curtilage. • Development must mitigate any increase in impermeable area to the site with runoff storage to prevent any increase in flood risk. An increase in impermeable area coverage on site will increase surface water runoff and flood risk if not managed properly.
D.	How can the development reduce risk overall?
	• No areas of the site have been identified where development should be directed away from in relation to flood risk. • By complying with Policy E2 of the Greenwich Local Plan and Policy EN6 of the draft Local Plan through demonstrating that the development will avoid or minimise all sources of flood risk to people and property taking climate change into account, and incorporating SuDS measures in order to manage surface water runoff as close to its source as possible and to meet the required SuDS performance standards. • By complying with SFRA - Level 2 Report Section 4 mitigation requirement 4.4.
E.	Which safe access and egress routes are recommended?



Given the risk of tidal flooding in a breach scenario to the available access and egress routes, the applicant should provide a Flood Risk Emergency Plan in line with Adept guidance.

F. Will development require a flood risk permit / watercourse consent?

No, the site is not within 16m of a tidal River, 8m of a Main River or 5m of an Ordinary Watercourse.

G. Can the site pass the Exception Test?

The site is located within Flood Zone 3a and the proposed vulnerability classification is 'More Vulnerable', therefore the Exception Test is required.

