

NAREMBURN PROGRESS ASSOCIATION

Founded 1901; Incorporated 2004

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RE: FLAT ROCK RESERVE ACTION PLAN SUBMISSION

Thursday 18 October 2023

Given the demonstrated importance of Flat Rock Reserve to the community, its historic significance and biodiversity value to the North Shore ("The park and the Flat Rock Creek gully was identified by Smith and Smith (2008) as the most important reserve for birds in North Sydney" Tunks Park Plan of Management) the current plan appears brief and lacking in detail in the areas detailed below. Under the Local Government Act (36C) special management considerations can be awarded to an area with "special natural features" in the form of geological/ natural elements or where a wildlife corridor exists. Flat Rock Reserve falls into both of these categories - its cultural significance and role in supporting endangered species should also be considered. This classification requires a separate Plan of Management (PoM) - this approach should be considered by council to ensure that this corridor is adequately protected into the future.

It is impossible to cover the level of detail required to successfully manage all aspects of this complex and significant nature reserve in a two paged Reserve Action Plan. It was evident that the State Government did not have sufficient information about this critical area when assessing the Beaches Link Project - a comprehensive review and plan of Flat Rock Gully would ensure that any future contractors, users, hirers, neighbouring residents, staff, councillors or volunteers are able to access important information in one document which will better assure the Reserve's survival into the future. Given the complexity of impacts and the array of users the plan should not only be limited to bushland management - all aspects should be reviewed and adequately documented.

Some of the areas are included below:

1. Assessment of flora and fauna communities: To protect this important area of biodiversity a more extensive, up to date and formal review of its Flora and Fauna is needed - the location of specific communities should be identified, wildlife corridors mapped and specific goals set in place to enhance these (Tunks Park, North Sydney, to Lane Cove via Bicentennial and through Willoughby to the North of the Reserve). Protection, maintenance, risk management and testing plans can then be adapted to the specific Flora and Fauna and risks present at different locations within the Gully identified. North Sydney Council conducted a Natural Area Survey in 2010 (<https://www.northsydney.nsw.gov.au/downloads/download/392/natural-area-survey>) which included some parts of Flat Rock and identified endangered bat species and powerful owls. Whilst WCC mentions that some surveys have been done since 2021 there are no reports on file for public view specific to Flat Rock and the Fauna list published has remained unchanged. Once an up to date list of Fauna and Flora is established Council should consider enhancing wildlife corridors such as planting vegetation to join up corridors via North Sydney and Willoughby or providing wildlife overpasses to ensure safe passage in urban areas. The role natural grass fields play in joining wildlife corridors and supporting biodiversity should be recognised. Powerful Owl hunting paths and Bat roosting areas should be noted in order to avoid bird/bat strike and interference due to lights. Threats to the reserve such as flooding/ leachate release/ run off etc should be more specifically addressed on the map and in the body of the document. The timeframe and scope of repeat surveys should be stated to adequately assess the condition of the reserve and provide objectivity as to the achievement of goals. Any extinctions or threats could be more easily identified if comparative studies were done on a periodic basis.
2. Climate Change: The potential impacts of climate change (i.e. heavy rain events which this reserve is very much impacted by) should be identified, monitored and plans put in place to mitigate and recover the bush due to erosion or die back. Given council's flood study recognises the flood risk through Flat Rock ie Flood Study Report States "For PMF events, the width of the high hazard zone increases significantly particularly along Flat Rock Creek and it's

tributaries”, the Flat Rock Flood Study 2018 should be referenced and areas of flooding noted in the Reserve Plan. A native tree/ plant replacement policy to accommodate for losses should be considered and mitigations employed specifically related to reducing flood impacts on Flat Rock Reserve . The Current WCC Flood Plan primarily focuses on built/ residential impacts rather than impacts to the reserve and is therefore insufficient to manage this risk. Given that Flat Rock Reserve is highly impacted, flooding should be mentioned and mitigated via the Reserve Action Plan or a PoM.

3. Contaminated Land Classification: The recent classification of the old landfill site by the EPA as contaminated land under NSW legislation should be noted and regular inspection and monitoring of the capping and waterways detailed. The boundaries of the landfill area should be noted on the Reserve Map. An emergency action plan should be detailed in the event of leachate release. Bio-filtration and other methods should be put in place downstream of the landfill site, in Flat Rock Gully Creek, to mitigate a potential contamination release from the tip or run off from nearby developments. Increased Iron Oxide has been noted in the waterways over the past 5 years (reported to Council and the EPA) which is a known indicator of leachate release particularly from quarries and landfill sites - Flat Rock Gully contains both an historic landfill site and a quarry. This risk should be noted in the Reserve Action Plan. Iron Oxide should be monitored and tested/ reported to the Council and EPA to rule out non-naturally occurring origins. Whilst oxidation is a natural process the reason it is occurring may not be.
4. Endangered/ Threatened Species and any protections should be noted ie sensitive fish breeding habitat/ nature conservation zone/ relevant rehabilitation/ recovery plans. The BoM notes that recovery plans will be developed for endangered species - any relevant species plans should be cross referenced to the Reserve Action Plan/ Flora and Fauna Lists.. Those managing the reserve need to be aware of species specific plans such as the ones published here: <https://www.environment.nsw.gov.au/topics/parks-reserves-and-protected-areas/park-management/assets-of-integergenerational-significance/adopted-conservation-action-plans>
5. Sewage Contamination: Given the recent fines for sewage overflows the location of the Northside Storage tunnel and it's overflow points should be identified on the map and signage erected warning people not to enter the creek after heavy rains with an emergency contact number clearly visible. Whilst the sewer system is the responsibility of Sydney Water the council should identify any risks that the system presents to the gully and it's users- including overflow points and tunnels/ lines which run under the gully. These may be impacted by tree roots and/ or cause subsidence or need work presenting a future risk to bushland. Issues that may occur will be more easily identified if the community and workers are aware of the sewage lines and the location of Northside Storage tunnel infrastructure. The BoM (5.2d) requires that council *“Identify in Reserve Action Plans practicable measures which can be applied to each reserve to reduce impacts of pollutants, such as: construction of drains and detention ponds designed to minimise impacts on bushland, run-off piped directly to suitable water courses.”*
6. Run off, Urban Encroachment and Stormwater: The yellow numbers noted on the map should be related to a key which details the lot numbers and zoning of surrounding properties to better identify and manage runoff issues and provide for accountability. Further controls should be put in place to prevent contaminants entering the gully i.e. ban on synthetic grass in surrounding areas, heavy fines for run off, pollutant traps as part of developments etc Having this information in separate documents does not lend itself to accountability. The water course of Flat Rock Creek and it's feeder waterways should be more clearly marked on a map within the plan. Suggest incorporating the catchment diagram into the Plan. The BoM sets a goal to expand waterway monitoring programs and *“Develop strategies based on monitoring program which can be implemented by Council departments, other authorities, Catchment Management Committees and through Reserve Action Plans. The monitoring programs to include: •Gross pollutant levels; • Sediment levels; • Water borne nutrient levels in creeks and estuaries; • The populations and of native vertebrate and invertebrate aquatic fauna species; • Weed populations- attributable stormwater influences. • The health of native plant communities impacted by stormwater discharges.”* Given the negative impacts to the Reserve over the past 5 years these methods should be implemented at Flat Rock as a priority. Both the Fish Kill and the Sewerage Event/ fine should be mentioned in the Action Plan as these have degraded the environment over the past 5 years.

7. Gomeraygal: Given the rich Gomeraygal History of the Gully more should be done to honour the Gomeraygal and educate visitors. It should be recognised that one of the last known “places of refuge” for Aboriginal People on the North Shore was located at Flat Rock with a similar settlement at Berry’s Bay with considerable evidence on the public records of Naremburn School. Aside from the archeological history ie middens, cave etc this is a substantive part of the social history of Aboriginal History of the North Shore and should not be overlooked. Further exploration of Flat Rock Gully as a place of significance should also be investigated with Aboriginal representative groups given the accounts of Aboriginal People travelling from Middle Harbour through to Lane Cove River via the gullies and the presence of archeological remnants.

8. WCC’s Bushland Plan of Management (BoM) recognises the potential impact of artificial turf and light pollution from sporting facilities (8.1.3) *“In relation to artificial turf the leaching of the crumb substrate and migration of microplastics can have a serious degrading influence. The other serious impact associated with sporting facilities is light pollution.”* The BoM requires that measures be put in place which achieve: *“A reduction in degrading influences of active sporting facilities which are adjacent to or upslope of bushland”* and *“Minimal impact on bushland and fauna habitat from lighting of sporting or recreational facilities.”* It is not clear in the Reserve Action Plan how the impact of the synthetic fields and lighting i.e. Thomson Oval, Northbridge Oval, School Ovals and Private Developments - upslope from Flat Rock Gully are to be monitored and how a degrading effect is to be managed. A program of regular inspection and sampling for micro plastics should be undertaken and actions taken where required to reduce the impact if mitigation measures at ovals are not effective.

9. During the Covid shut down the Gully became inundated with weeds - the increase in weed cover should be noted in the plan and specific actions/ a timetable documented to address this issue with some urgency. The Bushland Plan of Management (6.4C) requires that *“Reserve Action Plans show current major weed infestations, identify causes and control strategies.”* This detail is not clearly stated in the plan. By detailing or mapping current weed infestations a comparative assessment can be done in 5 years time to establish improvement.

10. Areas of Crown Land are included in the Flat Rock Gully Reserve. These should be noted in the Reserve Action Plan. Crown Lands Plan of Management Guidelines state that *“Natural areas may not be so appropriate for generic plans given that there may be issues unique to each piece of land based on the character of the land, surrounding development, community expectations and so on”*
https://reservemanager.crownland.nsw.gov.au/data/assets/pdf_file/0007/1156777/Revised-Plan-of-Management-Guideline-September-2021.pdf.

A far more substantive plan should be put in place to manage Flat Rock Gully due to it’s unique natural attributes, complexity and importance as a wildlife corridor - we would recommend that the Council classify the site as “containing natural features” under section 36C(2) LG Act and seek out grants/ State Government Support to undertake important surveying and testing work to establish a more detailed and effective plan where all users are identified and risks managed.

Overall clearer SMART goals should be set to improve the condition of the reserve and protect it's important biodiversity - each goal should be clearly stated, the method by which that goal is to be measured, by whom and when should be documented to ensure that plans to manage this rich and unique reserve are proactive and consistently implemented. The plan for Flat Rock should complement and be of the same standard as that of Bicentennial and Tunks Park action plans given Flat Rock Reserve borders both and is part of the same wildlife corridor.

Flat Rock Gully has been subject to major contamination events and threats over the past few years and Council has committed to do more to protect it. This gully is unique in terms of landform, history and the risks that are presented from the surrounding area and the past. The Gully needs a more rigorous method of protection in the form of a site specific Plan of Management in order for it to thrive into the future.