Our ref: MR/DP161129
29 November 2016
Mr Dick Persson AM, Administrator
Northern Beaches Council
PO Box 882
MONA VALE NSW 1660
Also by email: dick.persson@northernbeaches.nsw.gov.au

Dear Sir,

## ADEQUACY OF THE AVAILABILITY OF OFF-LEASH AREAS PARALLEL ASSESSMENT

This organisation has prepared a "parallel assessment" pursuant to the resolution of Council on 9 August 2016.

We trust, by reading the attached, you will perceive our high degree of investment in this issue. This is explained by the high importance we attach to the simple twice or thrice-daily pleasure of walking the family dog. For our members, outings with the dog provide the means by which we regularly connect with our local environment and community whilst also gaining some exercise.

The report is not an argument for a particular case. Rather, it is simply a compilation of factual information that would reasonably be properly weighed in your own assessment.

We would be grateful to receive from you a letter of confirmation that you have received and read our report, and that you agree to weigh its contents when finalising your own report.

Sincerely,


## Michele Robertson

Hon. Secretary, Pittwater Unleashed
encl. Adequacy of the Availability of Off-Leash Areas - Parallel Assessment (21 pages)

# ADEQUACY OF THE AVAILABILITY OF OFF-LEASH AREAS 

FORMER PITTW ATER COUNCIL LGA

November 2016

## Contents

1. Executive summary ..... 3
2. Introduction and interpretation of "availability" ..... 4
3. Spatial assessment methodology ..... 4
4. Spatial assessment results ..... 5
5. Physical conditions impacting "availability" ..... 6
Rowland Reserve, Bayview ..... 6
Dearin Reserve, Newport ..... 7
Hitchcock Park, Careel Bay ..... 8
Robert Dunn Reserve, Mona Vale ..... 10
The issue of paralysis tick. ..... 11
Bindii (Soliva pterosperma) ..... 11
6. Availability in terms of proximity or "walkability" ..... 12
7. Conclusion ..... 17
8. Attachments ..... 17

## 1. Executive summary

This assessment has been prepared in parallel with the review contemplated by the related Council resolution of 9 August 2016. It is submitted to Council as a resource to be consulted and weighed as Council finalises its own review.

Council resolved to review the "adequacy of availability". As "adequacy" can be a largely subjective consideration - and one that would ordinarily be ruled upon by an elected body particular care has been taken here to assemble relevant facts considered to be of assistance to the Administrator in his duty as substitute for the elected body. Accordingly, this assessment deals only with "availability", leaving "adequacy" to the proper authority.

This assessment has examined availability using an auditable quantitative approach, together with qualitative data backed by photos. The quantitative work measures off-leash areas as a proportion of the total public open space inventory. It also measures the ability of users to reasonably access these areas. The qualitative work shines a light on the physical condition of the off-leash areas, as this also impacts availability.

The study area covers the Pittwater peninsula using Mona Vale Road and Robert Dunn Reserve as the southern limit.

As a proportion of all public open space within the study area, off-leash space constitutes less than $1 \%$ in the region north of Bilgola, and $1.5 \%$ in the region from Mona Vale Road to Bilgola. In practical terms, this proportion of public open space is further reduced when considering periods of time when parts of these areas are not fit for purpose.

When considering reasonable access to off-leash areas in line with the overarching principles of the Community Strategic Plan, the proportion of the study area with reasonable walking access to leash-free areas equates to $\mathbf{1 2 . 2 9 \%}$ (on a conservatively high basis). For residents living within the other $\mathbf{8 7 . 7 1 \%}$ of the study area, daily exercise for the dog involves adding a car to local traffic congestion.

Those entire suburbs within the study area shown to be clearly cut off from reasonable access to off-leash options include Palm Beach, Clareville, Bilgola Beach, Bilgola Plateau and Newport. Residents of the northern parts of Pittwater also face a round trip of 30 km to take the dog for a swim - or a run in a tick-free environment - placing another car in local traffic for up to an hour.

## 2. Introduction and interpretation of "availability"

Pursuant to the 9 August 2016 meeting of the Northern Beaches Council, where the Minutes record that Council resolved to "review the adequacy of the availability of off leash dog areas on the Northern Beaches", Pittwater Unleashed has commissioned its own parallel assessment in the hope that the factual materials contained within such assessment will assist Council's own review.

The study area for this parallel assessment is limited to the region broadly corresponding to the developed areas of the former Pittwater LGA (Mona Vale Road to Barrenjoey).

In order to assess the adequacy of the availability, attention is first given to the concept of "availability". Pittwater Unleashed readily identifies three separate factors driving "availability":

1. Availability in spatial terms - where off-leash open space areas can be measured as a subset of the broader open space inventory,
2. Availability in temporal terms - where off-leash open space areas can be assessed in terms of their ability - for reasons relating to their physical condition - to remain available to satisfy the statutory role required of them (the ability to continuously remain fit for purpose), and
3. Availability in terms of proximity - where off-leash open space areas can be assessed in terms of the catchment they serve (proximity to intended users).

Pittwater Unleashed is a registered community organisation with a Northern Beaches support network of over 5,000 members. These members are dog owners who are well positioned to provide relevant input to any review of "adequacy of the availability of off leash dog areas". Within this assessment, care has been taken to present this input as a compilation of facts, rather than any argued case for a particular position. This is to ensure the report adopts the same structure to be expected of any report properly prepared by Council officers, where a dispassionate compilation of facts is to be found, free of the appraisal and advocacy elements that remain the province of the Administrator and the political process.

## 3. Spatial assessment methodology

Pittwater Unleashed has undertaken the spatial assessment of public open space in two categories:

1. Green Open Space (inclusive of cleared fields, bushland, but not paved parking lots), and
2. Tidal Open Space (inclusive of ocean beaches, rock pool/shelf areas, mud flats and estuary foreshore).

Using these two categories, Pittwater Unleashed has then assessed two geographical regions:

1. North of Bilgola (adopting Angophora Reserve as the southern limit of this region), and
2. North of Mona Vale Road to Bilgola (including South Mona Vale Headland Reserve as southern limit of this region).

The spatial assessment examines the areal extent of the public open space, along with the natural and imposed constraints on usage of the public open space.

In determining the areal extent of the various land parcels, a process of polygon creation and area-calculation was adopted using Google Earth Pro. This process was undertaken without the benefit of fixed cadastral boundaries to help avoid error arising from the unknown orthorectification status of the photographs. Accordingly, a systematic error has been built into the process of area calculation, and this is acknowledged. However, as this potential error applies to the whole assessment, a reliably high degree of relativity is retained. This means land use expressed as a ratio is largely free of the error. It should also be noted that larger individual
parcels have a lower exposure to the error. The smallest parcels (pocket parks $<3,000 \mathrm{~m}^{2}$ ), where exposure to the error in relative terms is highest, are areas that are not typically suitable for the exercising of dogs anyway.

## 4. Spatial assessment results

The availability of off-leash dog areas is summarised in the following Table 1. When considering green open space north of Bilgola, for example, it can be seen that the permitted off-leash area accounts for $0.99 \%$ of the total green space. Then when considering the fact that no tidal open space north of Bilgola is available to dogs, the permitted off-leash area within the combined green and tidal areas falls to $0.86 \%$. The corresponding numbers for the region between Mona Vale Road and Bilgola are $1.81 \%$ and $1.74 \%$.

It is noted that the calculation of off-leash area for the Mona Vale Road to Bilgola region is heavily affected by the inclusion of Dearin Reserve - an area that is not returned to by dog owners once the funnel web infestation has been observed (see Section 5). After making allowance for the general non-use of Dearin Reserve, the permitted off-leash area for the Mona Vale to Bilgola region drops from $1.74 \%$ to $1.50 \%$.

Table 1. Off-leash Space as a Proportion of Total Public Open Space

| North of Bilgola - Green Open Space |  | Reference |
| :---: | :---: | :---: |
| Total Green Open Space area ( $\mathrm{m}^{2}$ ) | 2,257,700 | Sheet 1 |
| Available OFF LEASH area ( $\mathrm{m}^{2}$ ) | 22,384 |  |
| OFF LEASH area as \% of Total | 0.9915\% |  |
| North of Bilgola - Tidal Open Space |  |  |
| Total Tidal Open Space area ( $\mathrm{m}^{2}$ ) | 347,931 | Sheet 2 |
| Available OFF LEASH area ( $\mathrm{m}^{2}$ ) | 0 |  |
| OFF LEASH area as \% of Total | 0.0000\% |  |
| North of Bilgola (combined Green \& Tidal Open Space areas) |  |  |
| Total Green \& Tidal Open Space area ( $\mathrm{m}^{2}$ ) | 2,605,631 | Sheet 3 |
| Available OFF LEASH area ( $\mathrm{m}^{2}$ ) | 22,384 |  |
| OFF LEASH area as \% of Total | 0.8591\% |  |
| North of Mona Vale Road to Bilgola - Green Open Space |  |  |
| Total Green Open Space area ( $\mathrm{m}^{2}$ ) | 2,351,113 | Sheet 4 |
| Available OFF LEASH area ( $\mathrm{m}^{2}$ ) | 42,650 |  |
| OFF LEASH area as \% of Total | 1.8140\% |  |
| North of Mona Vale Road to Bilgola - Tidal Open Space |  |  |
| Total Tidal Open Space area ( $\mathrm{m}^{2}$ ) | 406,488 | Sheet 5 |
| Available OFF LEASH area ( $\mathrm{m}^{2}$ ) | 5,330 |  |
| OFF LEASH area as \% of Total | 1.3112\% |  |
| North of Mona Vale Road to Bilgola (combined Green \& Tidal Open Space areas) |  |  |
| Total Green \& Tidal Open Space area ( $\mathrm{m}^{2}$ ) | 2,757,601 | Sheet 6 |
| Available OFF LEASH area ( $\mathrm{m}^{2}$ ) | 47,980 |  |
| OFF LEASH area as \% of Total | 1.7399\% |  |
| OFF LEASH area as \% of Total (discounting Dearin Reserve) | 1.5038\% |  |

## 5. Physical conditions impacting "availability"

As mentioned at Section 2, the "availability" of an off-leash area can be impacted by its physical condition. In general, an off-leash area is "available" when it is fit for purpose and being used as intended. When an off-leash area falls into an unsuitable state and is not being used as intended, at the required duty, it becomes unavailable.

## Rowland Reserve, Bayview

As part of this assessment Pittwater Unleashed contracted a third party to conduct a usage audit over consecutive weekends as summarised in Table 2:

Table 2. Rowland Reserve usage audit

| Date | Saturday, 1 October 2016 |  |
| :--- | :--- | :---: |
| Weather | Sunny, 23 ${ }^{\circ} \mathrm{C}$ max, 70-90kph nor westerly winds from 1PM |  |
| Tidal information | High at 8:19AM low at 2:24PM |  |
| Count commenced | 6:45AM |  |
| Count finished | $5: 17 \mathrm{PM}$ |  |
| Morning arrival rate | 114 dogs/hour |  |
| Total count for day | 871 dogs |  |
| Other factors | Sydney Swans playing in AFL Grand Final in the afternoon |  |
|  | Gale force winds lifting sand in the afternoon |  |
|  |  |  |
| Date | Saturday, 8 October 2016 |  |
| Weather | Fine with intermittent showers, $25^{\circ} \mathrm{C}$ max |  |
| Tidal information | Low at 7:14AM, high at 1:46PM |  |
| Count commenced | 6:45AM |  |
| Count finished | $5: 45 \mathrm{PM}$ |  |
| Morning arrival rate | 88 dogs/hour |  |
| Total count for day | 734 dogs |  |

These samples indicate that in favourable conditions (warm, clear, weekend days) Rowland Reserve generates a dog arrival rate of over 100 dogs/hour for a daily total in the order of 1,000 dogs. The number of people accompanying dogs is similar to the number of dogs.

There is evidence indicating this usage rate is unsustainable - that the open space as currently managed is not up to the duty - with foot traffic compaction and wear rates exceeding the ground surface's ability to recover. The Council appears to have become aware of this, having famously used Rowland Reserve in December 2015 as the disposal site for contaminated excavation spoil from drainage works in nearby Kitchener Park.


Press reports at the time suggested Council had been opportunist in finding a use for trench spoil that had been cursorily assessed as "OK" - that the relocation of this spoil could do some good at the seriously degraded Rowland Reserve whilst saving Council the task of finding somewhere else to dump it. The ensuing public relations disaster for Council management left many in the community feeling that areas permitting shared use by dogs off-leash do not attract the same commitment to maintenance enjoyed by areas set aside for other uses. Fragments of glass are still being gathered-up by dog owners 11 months after the event.


Rowland Reserve September 2016

## Dearin Reserve, Newport

As mentioned in Section 4, Dearin Reserve is not popular with users once the funnel web infestation has been observed. This condition alone therefore impacts the availability of this public space. Nonetheless, the space is passively enjoyed by locals for its impressive tree canopy, and also as an attractive shortcut from Crystal Bay to the Newport Arms Hotel. The established footway runs across the upper half of the park. It is the lower half of the park that serves as habitat for the funnel web spiders and rabbits.


Dearin Reserve November 2016


Dearin Reserve November 2016

The noticeable presence of rabbits helps confirm one of two things. Either the rabbits are demonstrating that the presence of dogs is not an automatic cause of relocation of so called "prey" fauna, or the rabbits are demonstrating that the dogs are not there in any troubling number. The funnel webs are a feature of the lower (western) half of the park in the shady understorey.

While the Dearin Reserve dog exercise area includes a section of foreshore that theoretically presents as an option for dog swimming, again this space becomes unavailable when considering its physical character.


As can be seen in the above photo of the Dearin Park foreshore, the intertidal zone is colonised by something of an oyster field. At mid to high tides, when foreshore areas are generally more attractive to those who take their dogs for swims, this oyster field presents as a submerged hazard in depths of approximately 300 mm . This depth sees the oyster's razor edges coincide with the same zone that would be used by frolicking dogs, were they ever to be found there. At low tide, dogs would still risk shredding their paws as they necessarily made their way through the exposed oyster field in order to access the water's edge.

## Hitchcock Park, Careel Bay

Hitchcock Park has traditionally been a popular off-leash area due to the attractive swimming options for dogs at high tide. However, following a Council decision in 2003 to close the area to dog swimming and find a replacement swimming area north of Bilgola, the exercising of dogs at Hitchcock Park has been limited to the 2.24ha portion of the former Council landfill/tip facility that was not shaped for organised sports. The tree cover within this remnant provides shaded areas that are well appreciated by users of the dog exercise area, but a string of other problems is observed from time to time, impacting upon the availability of the park for its intended use.


As detailed above for Rowland Reserve, Hitchcock Park also exhibits clear evidence of overuse. During dry periods, the inability of the grass to withstand and recover from the foot traffic sees the development of broad, dusty expanses of bare earth.

Without the competition from the preferred grass species, various weed species are then free to take hold. Council appears to have recognised the problem of weed infestation at Hitchcock Park, given the observed application of glyphosate herbicide in the general area. The application of these herbicides (and the period for them to take effect and wash away into the adjacent wetlands) is another impact on the park's availability for those who are concerned about exposing their dogs to these poisons.


Hitchcock Park February 2015
Hitchcock Park February 2015
But when the park is not dusty and bare, Council's mowing schedule at times is clearly seen to be unable to cope with the duty. Grassed areas left to grow to the heights shown above become ideal habitat for paralysis tick infestation. Again, as with the contaminated top dressing that was assessed by Council staff as satisfactory for the dog park at Rowland Reserve, members of the community observe the lack of care for this dog park and cannot reconcile this with the care clearly displayed by Council when maintaining other open space areas.


As for the replacement dog swimming areas north of Bilgola contemplated in the 2003 resolution, the above photos indicate the current state of play and significant compromise while awaiting a demonstration of commitment from Council to its own resolution. This dog swimming facility is managed and maintained by Council in an informal partnership with local volunteers. While the dogs enjoy cooling off here, the often-dusty walk back to the car makes for a messy trip home.

For those residents of the northern parts of Pittwater who are unprepared to risk an encounter with the Council ranger, yet do not find the above facility up to standard, their option for swimming the dog is to commit to the 30 km round trip to Rowland Reserve, thereby adding another car to local traffic congestion for up to an hour.


Hitchcock Park June 2016
Hitchcock Park June 2016
The above photos indicate some of the temporary fixes undertaken to protect dogs from the adjacent Barrenjoey Road hazard, and to stop them falling into the deep hole at the end of the drainage pipe discharging into Careel Bay. The hole at the discharge pipe is a significant hazard to small dogs, and any owners who find themselves in need of rescuing a dog from this pond of muck. The photo of the Barrenjoey Road boundary also indicates the prevalence of Wandering Jew (Tradescantia fluminensis) within parts of Hitchcock Park, an invasive species well known for its cause of serious irritation to dogs.

## Robert Dunn Reserve, Mona Vale

As with the Rowland Reserve and Hitchcock Park examples, Robert Dunn Reserve exhibits signs of stress from heavy use.


Robert Dunn Reserve September 2016


Robert Dunn Reserve 2015

The photo on the left is an example of the heavily compacted ground unable to regenerate due to the high rate of foot traffic. The photo on the right indicates part of the same area near the top of the steps leading down to the beach, with dog clearly enjoying the fact that the watering point created a cooling pond due to inadequate drainage design (a design that has since been modified). Under the current arrangements, cooling off after a run here risks an encounter with the Council ranger as the Robert Dunn Reserve dog exercise area does not extend down the steps to include the largely disused southern limit of Mona Vale Beach.

## The issue of paralysis tick

On the subject of paralysis ticks, Pittwater Animal Hospital says:
"The best possible advice regarding ticks is: Avoid them.
Unfortunately, that's easier said than done, especially in this area. The Northern Beaches can claim one of this country's highest incidences of the paralysis tick Ixodes holocyclus. The female of this species is the one that poses the greatest danger to your pets. Not to mention yourself and anyone else in the family.

Because these ticks prefer bushy native terrain and long grass, the worst areas are Avalon, Bilgola Plateau, Newport, Bayview, Church Point and North Narrabeen. But if you live anywhere on the Peninsula, especially on the Pittwater side, you're likely to encounter ticks. Although the worst time is from August through February, you can find ticks all year round. Particularly when rain follows a period of warm weather.

As if that weren't bad enough, scientists suspect that a combination of global warming, recent weather patterns, overgrown gardens, composting and mulching as well as growing bandicoot numbers is contributing to a steady increase in Sydney's tick populations. Compounding the problem are all those shady patches under overhanging branches in overgrown public recreational areas that prove so attractive to pets and their owners."

The advice relating to "shady patches under overhanging branches in overgrown public recreational areas" and the note about Avalon and "especially on the Pittwater side", would suggest that Hitchcock Park, from a tick-exposure perspective, is far from ideal as the only dog exercise area north of Bilgola. Therefore, even though Hitchcock Park is "available" in terms of space, to some (who will not risk tick paralysis/death), it is not available in terms of function.

## Bindii (Soliva pterosperma)

Bindii infestation is a typical response to overuse of public grounds. There is no need for this assessment to delve into an issue/concern in which Council is no doubt well-versed. The relevance of Bindii to this assessment however, is in its ability to render a public space unavailable to the exercising of dogs. Many dogs recognise Bindii (most likely through an olfactory cue) and will not walk near it, having learned of the terror it brings to their pads.

This means, without due care and consideration, Councils face a system of management that creates its own feedback loop and spins out of control.


## 6. Availability in terms of proximity or "walkability"

Over the years, Council has invested considerable effort and funds consulting with the community, commissioning research, and compiling reports, to help record the Pittwater community's main aspirations and priorities. These main aspirations and priorities are used to set the structure around which policies are then developed and implemented.

In terms of recreational pursuits and the need to facilitate these, "walking for exercise" has consistently rated the most popular local activity. Indeed, dog walking (specifically) has rated more highly than surfing, playground visits, golf, fishing and football (Pittwater Public Space and Recreation Strategy 2014, p37).

At the same time, threats to the treasured local environment and "liveability" qualities have also been carefully identified and collated with a view to addressing, and not exacerbating, these. A regular issue of concern in this respect relates to local traffic congestion and use of the private vehicle when other options could be available.

This pro-walking, anti-traffic disposition of the people has been captured by Council in any number of places, including:
"Promote Pittwater as a community that embraces sustainable living options such as riding a bike, walking, and car pooling."
(Pittwater Social Plan 2012-2016, Executive Summary p22)
"Limited transport options can lead to increased car-use, as well as the growing number of cars per home. This, in turn, can contribute to traffic congestion around Pittwater and a decline in healthy lifestyle choices."
(Pittwater Social Plan 2012-2016, Executive Summary p22)
"To use recreational opportunities to encourage a fit and healthy community for all abilities." Recreational Management Strategy, Objective No.9.
(Pittwater 2025, Our Community Strategic Plan p12)
"Enhancing the environment for passive activities such as walking." Recreational Management Strategy, Identified Opportunity No.6.
(Pittwater 2025, Our Community Strategic Plan p13)
"To reduce the use of and reliance on private motor vehicles." Traffic \& Transport Strategy, Objective No.2.
(Pittwater 2025, Our Community Strategic Plan p14)
"To improve road and footpath safety to encourage (foot) use by community." Traffic \& Transport Strategy, Objective No.7.
(Pittwater 2025, Our Community Strategic Plan p14)
"Increasing congestion on arterial roads due to increasing development, population and use." Traffic \& Transport Strategy, Identified Challenge No.4.
(Pittwater 2025, Our Community Strategic Plan p15)
"High level of car dependency." Key Climate Change Issue No.4.
(Community Strategic Plan Towards 2028, Issues Paper p12)
"Air pollution associated with increased traffic and congestion." Key Clean Environment Issue No.5.
(Community Strategic Plan Towards 2028, Issues Paper p13)
"The overarching challenge is to ensure that all members of our community are supported and feel connected; that health and wellbeing is enhanced..." Key Connected Community Issue.
(Community Strategic Plan Towards 2028, Issues Paper p20)

Guided by the clear pro-walking, anti-traffic disposition of the community, Pittwater Unleashed has assessed the availability of off-leash areas in terms of "walkability". The "walkability" of an off-leash area, in this context, refers to the catchment within which people could readily choose to walk to a particular dog park. Pittwater Unleashed identifies this approach as entirely consistent with Council's well established "Needs Based Approach" used when assessing
adequacy of open space provision, and in particular, Performance Criterion No. 1 that the space be "within a reasonable distance of residential areas". (Pittwater Public Space and Recreation Strategy 2014, p42).

Any alternate approach, crudely examining a theoretical catchment based on how long it might take to drive the dog by car to a dog park, would not appear to be at all consistent with the recorded wishes of the community and the pro-health, pro-walk, and anti-traffic objectives of the Council.

Accordingly, Pittwater Unleashed has examined the dog park walking catchments based upon a reach of 1.5 km . This distance was considered a conservatively high limit, serving to depict a catchment that is greater in size than it would likely be in practice. The 1.5 km distance is set to correspond to a half hour walk each way, adding 1 hour to the dog's exercise time at the actual park. The 1.5 km reach has not been discounted for reasons of grade and hostility of the roadside environment (where it is sometimes highly unsafe to be walking dogs).


As can be seen in Figure 1, the 1.5km catchment for Hitchcock Park is shown to run well north along Barrenjoey Road to just beyond Dark Gully Park. Due to the hostility of the Barrenjoey Road environment, walkers are rarely seen with dogs approaching Hitchcock Park from the north. In practice, the walking catchment is more reasonably constrained to just the North Avalon area. The Hitchcock Park catchment, as depicted here, measures 123.5ha.


The 1.5km catchment for Rowland Reserve shown above in Figure 2 relies on walkers using the access through the Winnererremy Bay protected bushland area. The Rowland Reserve catchment, as depicted here, measures 101.1ha.


The 1.5 km catchment for Robert Dunn Reserve shown above in Figure 3 saw this assessment consider the area slightly further south (as this fell within the 1.5 km walking reach). By way of clarification, the Section 4 Spatial Assessment did not include any public open space areas south of Robert Dunn Reserve, as this park was taken as the southern limit for that assessment. The Robert Dunn Reserve catchment, as depicted here, measures 103.4ha.


Figure 4 provides some context around the dog park areas and walking catchments as they sit within the former Pittwater LGA.

Figure 5. Study Area


Table 3. Summary of Dog Park 1.5km Catchments Within Study Area

| Hitchcock Park 1.5km area | 123.5 ha |
| :--- | :--- |

Rowland Reserve 1.5 km area
Robert Dunn Reserve 1.5km area
Sum of all three dog park 1.5 km catchments Study area total
Percentage of study area "walkable" to dog park
101.1ha 103.4ha
328.0ha

2,669.4ha 12.29\%

As can be seen from the Table 3 summary, the proportion of the study area falling within reasonable walking access to leash-free areas equates to $12.29 \%$. For residents living within the other $\mathbf{8 7 . 7 1 \%}$ of the study area, daily exercise for the dog involves adding a car to local traffic congestion.

Figures 4 and 5 also show those entire suburbs within the study area clearly cut off from reasonable access to off-leash areas. Most notably these are shown to include Palm Beach, Clareville, Bilgola Beach, Bilgola Plateau and Newport.

## 7. Conclusion

In arriving at a determination of adequacy of availability, other (non dog-related) uses of public open space must inevitably be weighed.

Within the former Pittwater LGA, the importance of habitat provision is often raised by special interest groups who advocate that suitable areas must be set aside for fauna (whether native or exotic). With this in mind, Pittwater Unleashed draws attention to the overwhelmingly vast proportion of public open space lands serving as habitat (to the near exclusion of all other uses) even before the introduction of the LGA's National Park lands west of McCarrs Creek and along Pittwater's western shore. Inclusion of these habitat areas within the Section 4 calculations would have forced the availability of dog exercise areas into the realm of statistical insignificance.

And even within the $<1 \%$ (north of Bilgola) and 1.5\% (Mona Vale Road to Bilgola) of total public open space providing for off-leash exercise, the facts set down in Section 5 indicate that availability, in practice, is lower than that suggested by these spatial determinations alone.

When considering availability of off-leash areas in line with the overarching principles of the Community Strategic Plan and related documents - that social connectedness, health and fitness are not served by piling into the car, and exercising the dog ought not unnecessarily add to local traffic congestion - only $\mathbf{1 2 . 2 9 \%}$ of the study area (on a conservatively high basis) reasonably provides for this. This statistic would appear to reveal ample opportunity for the improvement contemplated at Council's Main Recommendation No.3: "To improve equity in the distribution of public space and recreational opportunities" (Pittwater Public Space and Recreation Strategy 2014, p5).

## 8. Attachments

Sheets 1-6, summarising green and tidal open space within LGA north of Mona Vale Road

## Sheet 1: North of Bilgola - Green Open Space

## Parcel ID

Barrenjoey Head - National Park
Governor Phillip Park introduced habitat area
Governor Phillip Park (open green area, not paved parking
Palm Beach Golf Course
Sunrise Reserve
Pittwater Park (open green area, not paved parking)
Snapperman Beach Reserve
Sandy Point Beach Reserve
lluka Park
Woorak Road Reserve
McKay Reserve including Cynthea
Palm Beach Ocean Beach Reserve (open green area)
Bushland Reserve ( 95 A Pacific Road)
Witshire Park
Hordern Park
Whale Beach Road Headland Reserve
Whale Beach Ocean Beach Reserve
Bible Garden (Mitchell Road)
Annie Wyatt Reserve (Rock Bath Road)
Norma Park
Moreilla Reserve
Dark Gully Park (927 Barrenjoey Road)
RE1 space north of Etival Street
Hitchcock Park (dogs permitted area)
Hitchcock Park (organised sports)
Hitchoock Park (other open space, including RE1 837A Barrenjoey Rd) Careel Bay Reserve
Dolphin Park (opposite Hitchcock Park)
Coral Reserve (Coral Close)
Careel Headland Reserve
Bangally Reserve
Bangally Headland Reserve
Reserve 81895 ( 879 Barrenjoey Road)
Reserve (45A Marine Parade Headland North Avalon)
Avalon Beach Reserve (Des Creagh Reserve)
Avalon Community Gardens
Dunbar Park (Avalon Village)
Toongari Reserve
Catalpa Reserve
Jamieson Park (743 Barrenjoey Road)
Barrenjoey High School grounds (green space)
Stapleton Park
Cannes Reserve
Gunyah Place Reserve
Therry Street Reserve (Frog Hollow)
Elgata Close Reserve
Brindisi Reserve
Paradise Beach Reserve
Old Wharf Reserve Clareville (including 30A Hudson)
The Pinnacle Reserve
PaImgrove Park (Dress Circle Road)
Weetawaa Reserve
Betsy Wallis Reserve
Avalon Golf Course
Avalon Primary School grounds (green space)
Marine Park (South Avalon)
Clareville Beach Reserve
Taylors Point Reserve
Hilltop Road Reserve
Agophora Reserve (southern limit of "North of Bilgola")

|  | Area (ha) | Area $\left(\mathbf{m}^{2}\right)$ |
| ---: | ---: | ---: |
| Dog Status |  |  |
| -34.84 | 348,442 | DOGS PROHBITED |

-----34.84 $---348,442$ DOGS PROHBITED

Condition
No dogs since Council handover to NPWS in 1997 Paralysis tick infested

Paralysis tick infested

Boat trailer parking, unsuitable
Paralysis tick infested
Predominantly parking, dogs on traffic side Pocket park

Vo dogs park side of fence
Pocket park
ocket park, ticks
ocket park

Bare earth readily becomes dusty or boggy

Paralysis tick infested
Pocket park
solated by Barrenjoey Rd
Including parking
Including parking, unsuitable for dogs


## Paralysis tick infested

Paralysis tick infested
Paralysis tick infested

Pocket park
Pocket park

## Summary

Subtotal Dogs Prohibited
Subtotal Dogs permitted leash-free
Subtotal Dogs permitted on lead
Subtotal Dogs permitted on lead (usable, accessible, $>3,000 \mathrm{~m}^{2}$ )
Total Green Open Space

| Area (ha) | Area ( $\mathrm{m}^{2}$ ) |  |
| :---: | :---: | :---: |
|  | TBC |  |
| 2.24 | 22,384 |  |
|  | TBC |  |
|  | TBC |  |
| 225.77 | 2,257,700 |  |

## \%of Total Green Open Space

Sheet 2: North of Bilgola - Tidal Open Space (includes surf beaches, rock pool areas, mud flats, estuary foreshore)

| Parcel ID | Area (ha) | Area ( $\mathrm{m}^{2}$ ) | Dog Status | Condition |
| :---: | :---: | :---: | :---: | :---: |
| North Palm Beach (to Ocean Road) | 9.63 | 96,297 | DOGS PROHIBITED |  |
| Palm Beach (south of Ocean Road bend) | 7.04 | 70,366 | DOGS PROHBITED |  |
| Palm Beach Rock Pool area | 0.20 | 1,990 | DOGS PROHBITED |  |
| Whale Beach ---------------- | 6.58 | 65,832 | DOGS PROHBITED |  |
| Whale Beach Rock Pool area | 0.65 | 6,472 | DOGS PROHBITED |  |
| Avalon Beach | 2.37 | 23,669 | DOGS PROHBITED |  |
| Avalon Beach Rock Pool area | 0.23 | 2,348 | DOGS PROHBITED |  |
| Station Beach (to Boathouse) | 0.85 | 8,464 | DOGS PROHBITED |  |
| Golf Course foreshore (Boathouse to Beach Road) | 0.60 | 6,010 | UNCERTAIN |  |
| Waratah Road foreshore | 0.16 | 1,606 | UNCERTAİ- |  |
| Pittwater Park foreshore | 0.20 | 1,953 | UNCERTAİN |  |
| Snapperman foreshore | 0.60 | 5,950 | UNCERTAIN |  |
| Sand Point foreshore (south of Sand Point) | 2.10 | 21,011 | ÜNCERTAİN |  |
|  | 0.71 | 7,052 | NO ACCESS |  |
| Reserve 81895 (879 Barrenjoey Road) foreshore | 0.21 | 2,144 | NO ACCESS | Dangerous proximity to Barrenjoey Rd |
| Etival Street and Currawong Ave foreshore | 1.49 | 14,877 | DOGS PROHBITED |  |
| Paradise Beach Reserve foreshore | 0.27 | 2,666 | DOGS PROHBITED |  |
| Old Wharf Reserve foreshore | 0.17 | 1,668 | UNCERTAIN |  |
| Clareville Beach Reserve foreshore | 0.67 | 6,656 | DOGS PROHBITED |  |
| Taylors Point Reserve foreshore | 0.09 | 900 | ÜNCERTAİ |  |
|  |  |  |  |  |
| Summary | Area (ha) | Area ( $\mathrm{m}^{2}$ ) |  | \% of Total Tidal Open Space |
| Subtotal "Dogs Prohibited" |  | TBC |  |  |
| Subtotal Dogs permitted leash-free | 0.00 | 0 |  | 0.0000\% |
| Subtotal Dogs permitted on lead |  | TBC |  |  |
| Total Tidal Open Space | 34.79 | 347,931 |  |  |

Sheet 3: North of Bilgola (combined Green \& Tidal Open Space areas)

|  | Area (ha) | Area ( $\mathrm{m}^{2}$ ) | \%of Total Green \& Tidal Open Space |
| :---: | :---: | :---: | :---: |
| Subtotal "Dogs Prohibited" |  | TBC |  |
| Subtotal Dogs permitted leash-free | 2.24 | 22,384 | 0.8591\% |
| Subtotal Dogs permitted on lead |  | TBC |  |
| Total Green \& Tidal Open Space | 260.56 | 2,605,631 |  |

## Parcel ID

Kiah Reserve
Refuge Cove Reserve
Salt Pan Cove Reserve
Newport Heights Reserve
Plateau Park
Bilgola Plateau Primary School
Hewitt Park
Hamilton Reserve
Cheryl Crescent Reserve
Crown of Newport Reserve
Eric Green Reserve
Bilgola Beach Reserve
Attunga Reserve
Kanimbla Reserve
Porter Reserve
Newport Lookout \& North Newport
Algona Reserve
Florence Park
Regatta Reserve
Newport Beach Reserve (including Bert Payne Park)
Spurway Park
Newport Park
Woolcott Reserve
Trafalgar Park
Newport Primary School
Dearin Park
Bungan Head Reserve
Betty Morrison Bungan Beach Reserve
Bushranger's Hill Reserve
Crescent Road Reserve
Beaconsfield Street Reserve
Yachtsmans Paradise Reserve
Rednal Street Reserve
Wini Jimmi Reserve
Winnererremy Bay Foreshore Reserve
Bangalow Reserve
Pavich Reserve
Mona Vale Headland Reserve (north)
Apex Park
Mona Vale Beach Reserve
South Mona Vale Headland Reserve (including Robert Dunn)
Mona Vale Golf Course
Kitchener Park and bowing club area
Village Park
Additional Mona Vale Beach green reserve area
Pittwater High School
Rowland Reserve (dogs permitted area)
Rowland Reserve (other open space including Kooroowall)
Bayview Golf Course
Kamilaroi Park
Annum Road Reserve 48 C
23 Utingu Place (Bimbimbie)
Pindari Reserve
Loquat Valley Reserve
Minkara Reserve
19A lilya Ave Reserve
Riddle Reserve
Griffin Park
Church Point Reserve
Bothams Beach
Kennedy Park
Kennedy Place Reserve
McCarrs Creek Reserve (dog trial area)
McCarrs Creek Reserve (other open space)
Waratah Street Reserve (Woodlands)
Mona Vale Public School
Briony Reserve
Katrina Reserve
Whitney Reserve
Fazzolari Ave space
Minmai Reserve
Peita Reserve
Marie Crescent Reserve
Katandra Sanctuary

## Area (ha) $\quad$ Area (m) Dog Status

| Area (ha) | Area (m) | Dog Status |
| :---: | :---: | :---: |
| 0.12 | 1,192 | UNSUITABLE |
| 1.49 | 14,888 |  |
| 2.16 | 21,626 |  |
| 0.88 | 8,824 |  |
| 1.95 | 19,487 |  |
| 0.98 | 9,761 | DOGS PROHBITED |
| 2.96 | 29,627 | NO ACCESS |

Condition
Condition

Summary
Subtotal Dogs Prohibited
Subtotal Dogs permitted leash----
Subtotal Dogs permitted on lead
Subtotal Dogs permitted on lead (usable, accessible, $>3,000 \mathrm{~m}^{2}$ )
Total Green Open Space

| Area (ha) | Area ( $\mathrm{m}^{2}$ ) |  |
| :---: | :---: | :---: |
|  | TBC |  |
| 4.27 | 42,650 |  |
|  | TBC |  |
|  | TBC |  |
| 235.11 | 2,351,113 |  |

## \%of Total Green Open Space

Sheet 5: North of Mona Vale Road to Bilgola - Tidal Open Space (includes surf beaches, rock pool areas, mud flats, estuary foreshore)


Sheet 6: North of Mona Vale Road to Bilgola (combined Green \& Tidal Open Space areas)

|  | Area (ha) | Area ( $\mathrm{m}^{2}$ ) | \%of Total Green \& Tidal Open Space |
| :---: | :---: | :---: | :---: |
| Subtotal "Dogs Prohibited" |  | TBC |  |
| Subtotal Dogs permitted leash-free | 4.80 | 47,980 | 1.7399\% |
| Subtotal Dogs permitted leash-free (less Dearin Park) |  | 41,470 | 1.5038\% |
|  |  | TBC |  |
| Total Green \& Tidal Open Space | 275.76 | 2,757,601 |  |

