The Bushland Whistler

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LAKE FORRESTDALE

Lake Forrestdale is a shallow, seasonal lake of approximately 220 hectares, situated 25 km southeast of Perth in the City of Armadale. The largest in Perth's south metropolitan region, the lake is a wetland of national importance and a Ramsar Convention wetland of international importance. It is a significant site for black swans, many species of ducks and other waterfowl and migratory and non-migratory wading birds.

In June or July, Lake Forrestdale starts to fill, and about the end of September, it reaches its maximum depth. By early summer, the lake is usually dry. The depth of the lake varies from year to year depending on rainfall – these days it can be between around 200 and 500 mm. Decades ago the lake held a lot more water than it does now, and for longer periods. Some years it did not dry up at all. Diminishing rainfall, and ground water extraction from government and private bores are some of the reasons for the lake's decreasing water levels.



Lake Forrestdale at dawn (December 2013)

A Place of Plenty

Before European settlement, Lake Forrestdale was a special place for Aboriginal people who camped around its shores and hunted for the plentiful food to be found here. Long-necked turtles and other reptiles; waterfowl and their eggs; koonacs and gilgies; mammals, such as possums, kangaroos and bandicoots (quendas) and many other animals that are now locally extinct, would have been part of the diet of the indigenous people. The lake was a place of abundance then and the Aboriginal people who spent time here would have lived well.

Since European settlement, Lake Forrestdale has undergone significant change and it is no longer the pristine environment it once was. Yet − with its seasonal wet and dry fluctuations, its myriad moods and expressions and the array of animals it sustains − it is still a wild, nurturing place of enduring beauty. ♦

DRAGONFLIES - in Forrestdale

Dragonflies are an ancient group of insects. Fossil-finds tell us that they have lived on Earth for at least three hundred million years, and that they precede even the dinosaurs. Early dragonflies were much larger than their present-day counterparts, attaining an imposing 65 cm wingspan. Other than that they have changed little in form in all that time.

Dragonflies are formidable predators of flying insects and they use their exceptionally keen eyesight to detect prey, which they catch on the wing. In relation to their flying ability, dragonflies outperform almost any other animal. With wings that can operate together or independently, that can flap up and down or rotate backwards and forwards, the aerial manoeuvrability of dragonflies is awe-inspiring.



Dragonflies are beneficial to humans, since their prey includes pests such as mosquitoes, which are consumed in large numbers. Dragonflies need fresh water to breed and the females, which are usually less colourful than the males, lay their eggs either on the surface of the water or on aquatic plants. When the nymphs hatch they remain in the water, predating on a range of aquatic invertebrates including mosquito larvae. The aquatic nymphal phase of a dragonfly's life is somewhat longer than the adult phase, which can be just a few weeks or months. While ponds, streams and wetlands are required for breeding — and it's in these locations that dragonflies will be seen in greater numbers — many dragonfly species will also haunt areas some distance from water.

Several species of dragonfly occur in the Forrestdale area, where they occupy a variety of habitats including the margins of Lake Forrestdale and other local wetlands, native bushland and home gardens. One of the most striking local dragonflies (but by no means the most common) is the Narrow-lobed Glider (Tramea stenoloba) (above), a medium to large deep red dragonfly, distinguished by the conspicuous darkened patch at the base of its hind wings (a feature resulting in the common name "Saddle Bags" for American members of this genus). Some of the more common local dragonflies are the Blue Skimmer (the male is blue, the female is a muted yellow with dark brown markings), and the Wandering Percher, a small bright red dragonfly with black markings along its abdomen. The female (pictured) is yellow with similar markings to the male. The females of this species appear to be more plentiful than the males and are frequently seen in bushland, where they are adept at catching bushflies. They are trusting little dragonflies and will allow you to get quite close. If you see one perched on a nearby twig, and you stand quietly, you may witness it dart from its perch and, in a second or two, land back on the twig with a bushfly in its mandibles – probably one of the pesky flies that have been following you on your walk. The dragonfly will then proceed to eat the fly, wings, legs and all. Some dragonfly species, such as the Blue-spotted Hawker (Adversaeschna brevistyla) and the Australian Emperor hunt by tirelessly patrolling their territorial patch and catching and eating their prey on the wing. These large impressive dragonflies, along with the other species mentioned are widespread in Australia.







Blue Skimmer (Orthetrum caledonicum)

Australian Emperor (Hemianax papuensis)

Wandering Percher (Diplacodes bipunctata)

ANIMAL TRACKS - on Keane Road alignment, Anstey-Keane Dampland

Wild animals are inherently timid and secretive and as a result, are not often easy to see. Many are nocturnal, others crepuscular (active at twilight), which makes them all the more cryptic. Diurnal wild animals can also be difficult to observe as they usually see or hear you before you see them and their typical reaction is to run away,

Kangaroo track

scuttle for cover, or remain motionless and rely on camouflage for concealment.

A consequence of these elusive behaviours is that it's easy to underestimate or overlook wildlife diversity in bushland habitats.

A fascinating and non-invasive way to gauge wildlife density in a particular area, however, is to observe animal tracks. Sandy tracks and firebreaks are ideal places for finding wildlife tracks and Anstey-Keane Dampland is especially rewarding in this respect. Here the ground can resemble an embroiderer's sampler of intricate stitches — sinuous stitch-like tracks, created by mammals, reptiles, birds, frogs and invertebrates

that weave their way over the sand.

Many of these tracks are intriguing and mysterious and leave one puzzled as to what type of creatures have made them. Others, such as the lithe, sweeping marks of snakes and goannas, or the broad, chunky traces of bobtail skinks are easy to tell, as are the footprints of kangaroos and bandicoots. Birds, large and small, leave footprints too as they walk, hop or scurry across the sand.

The firebreak running the length of the Keane Road alignment (the location of the proposed Keane Road extension) displays an abundance of animal tracks of indescribable variety. This clearly illustrates the wealth of life present in this habitat. If the road is built, much of this wildlife will be eradicated. ♦



Animal tracks on the firebreak along the Keane Road alignment: (1) the track of a Gould's Sand Goanna (*Varanus gouldii*); (2) the creator of this track is unknown, this and many other similar cryptic tracks are plentiful at Anstey-Keane; (3) Southern Brown Bandicoot (*Isoodon obesulus*) tracks, this is one of several regularly used bandicoot trails crossing the firebreak along the Keane Rd alignment; (4) track made by Rosenberg's Goanna (*Varanus rosenbergi*); (5) the track of a Western Bobtail (*Tiliqua rugosa rugosa*); (6) a bird track (horizontal) intersects a track possibly made by a young bandicoot.

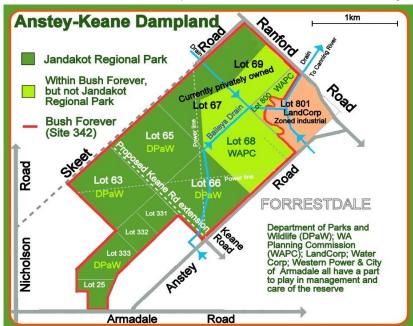
MEETING AT ANSTEY-KEANE DAMPLAND

On Sunday morning, January 12, the Friends of Forrestdale and City of Armadale Councillors held a meeting at Anstey-Keane Dampland to discuss environmental and other issues concerning the proposed Keane Road extension, which, if built, will traverse and fragment this prime Bush Forever site. The City's Mayor, Henry Zelones, Councillors for Lake Ward, Jeff Munn and Carole Frost and Neerigen Ward Councillor Guenter Best attended the meeting, as well as Mary Gray, President of the Urban Bushland Council, several members of the Friends of Forrestdale and members of the public.



Meeting at Anstey-Keane Dampland, January 2014

Mayor Zelones began the meeting by giving a background and history to the proposed road and outlining the timeline and process for the PER with the imminent closing of submissions, appeals later and the decision by the Minister in November. (For more information see the City of Armadale website www.armadale.wa.gov.au.)



Friends of Forrestdale Secretary, Rod Giblett then outlined reasons the Friends of Forrestdale and other conservation groups, along with local residents and concerned members of the public oppose the construction of the Keane Road extension.

The first point Rod made was that this road simply isn't needed. Already in place in the immediate vicinity is a major road network sufficient to serve the requirements of local motorists well into the future. Aside from the roads already constructed, Skeet Road – soon to be built between Ranford and Nicholson Roads – will provide an alternative to Keane Road, avoiding the environmental traumas associated with dissecting and fragmenting an

intact and irreplaceable conservation estate. Put simply, the construction of the Keane Road extension would be a very high price to pay (environmentally and financially) for specious gain.

Additional reasons for opposing the Keane Road extension:

- Fragmentation Anstey-Keane is a Swan Coastal Plain biodiversity hotspot. Its high biological value can be attributed to its large, unbroken size. Intact reserves of this dimension in metropolitan Perth are now rare. Dissecting Anstey-Keane with a road and introducing unmanageable degradation problems would diminish the ecological viability of the entire reserve. Two smaller, separated fragments have much less conservation value than a large consolidated block.
- Loss of bushland it is estimated that 1.65 hectares of bushland will be cleared to build the road. This might not seem much, but it amounts to a significant swathe of high quality bushland 1.5 kilometres long, that should be left intact. It is also habitat for numerous species of wildlife. When one considers that around 90% of Swan Coastal Plain original vegetation has now been lost, the idiom "Death by a thousand cuts" is very applicable in this instance. Every remaining piece of natural bushland matters.
- Edge effects the Bush Forever site as a whole would be compromised by the damaging 'edge effects' along the road. Invasive weeds would take hold and penetrate bushland the length of the alignment bushland that is currently in excellent condition and relatively weed-free.
- Pollution, roadside litter and rubbish dumping the road would intensify these persistent problems.
- **Off-road vehicle incursion** a road through the centre of Anstey-Keane would further facilitate unlawful access into the reserve for off-road vehicles and rubbish dumpers.
- **Light pollution** street lighting is inappropriate in a conservation estate. It plays havoc with wildlife. Especially night-flying insects, many of which are important pollinators of native plants.
- **Noise pollution** traffic noise travels a considerable distance and impairs the discreet quality of natural ecosystems. It also interferes with the ability of wildlife to communicate.
- Additional fence maintenance the Department of Parks and Wildlife already has its work cut out maintaining fencing around the perimeter of the reserve. Three kilometers of additional fencing through the reserve's centre would significantly increase the workload and cost for the department.
- Wildlife carnage Anstey-Keane supports a rich diversity of wildlife. A road through this environment would devastate the wildlife. Besides familiar animals such as kangaroos and bandicoots (quendas) the 2012 Quenda Survey conducted by the Department of Parks and Wildlife found that 44% of quenda deaths was road kill incalculable numbers of other wildlife would also fall victim to vehicle strikes. By degrees, biodiversity in this species-rich site would diminish.
- Contravening EPA guidelines the construction of the Keane Road extension through Anstey-Keane
 Dampland would contravene the guidelines of the Environmental Protection Authority (EPA), as stated
 in the December 2013 Environmental Protection Bulletin No. 20 Protection of naturally vegetated areas
 through planning and development. The Bulletin states:

Large consolidated naturally vegetated areas have been shown to be the most resilient in protecting biodiversity in the long term and generally have lower management requirements (costs) than smaller and fragmented areas of vegetation. Development should be designed to retain naturally vegetated areas in large consolidated blocks which are representative of the biodiversity values in the area, to avoid fragmentation or isolation ... fragmentation of larger naturally vegetated areas into smaller pockets of vegetation results in the loss of habitat values and degradation of vegetation. Small areas of vegetation have low viability, higher management costs to maintain their condition and are more susceptible to weeds, pest invasion and other degrading processes ... Services and infrastructure, including roads and other transport corridors, should not be located within or through consolidated naturally vegetated areas. Infrastructure within naturally vegetated areas disrupts the connectivity of these areas and reduces the environmental values and long-term viability of the area through fragmentation and edge effects. \diamondsuit