

BARRACKS CREEK PLANTING PLAN

NATIONAL TREE DAY, SUNDAY 30TH JULY 2023



Location: A large clear degraded grassland area to the north of Barracks Flat Drive and the Neighbourhood Park, east of Barracks Flat Creek. The grasses are sparse in much of the area, but some areas have thick couch grass that will require spraying. The creek vegetation forms a corridor of variable width, featuring a mix of native and exotic trees, some native shrubs, and a variety of weeds. The grassland area extends north to River Drive and includes reedy areas occasionally inundated on the eastern edge.

The dominant soil in the area appears to be a cracking silty clay, with possible features associated with back fill in the past such as gravel, slightly acidic. The cracking nature of the soils cautions against use of very small tube stock whose roots might be disturbed/exposed by cracking. The main proposed planting sites 1-4 utilise the western edge, as this has more amenable soils (less apparent cracking), is not subject to inundation, and is sheltered by existing creek vegetation corridor. Sites 5 and 6 marked for later planting provide for visual

variation within the open area, are slightly raised (not periodically inundated), but are more exposed and will require care in plant selection and maintenance.

History: Part of the area was subject to clay quarrying and back fill in the past. Over 2014-16, QPRC organised plantings in a sizable strip along the NW edge of the area. From the original planting lists, survival has been moderate especially of smaller species, but has left a healthy Eucalypt and Acacia dominated strip with some larger shrubs (*Leptospermum*, *Melaleuca*). The majority of smaller plants, mostly *Lomandra* and *Hardenbergia* have not survived. In some parts, apparent overplanting or underestimates of survival have left shaded areas with dense Eucalypt cover with fewer shrubs.

(Outside the planting area proposed for 2023, there are several small, possibly struggling Eucalypts in the open grassland area, planting history unknown.)

Proposal for 2023: Extend the 2014-16 planting north, thickening the creek vegetation corridor, a similar sized area to the 2014-16 planting and with overall similar eventual vegetation structure. Approx. area equals a strip 6-10m out from the existing creek side vegetation, plan as 2 sections for the day divided at the end of the fence line), each ~25m long (total ~450 m²). The focus is on native trees and medium-large shrubs, with a strip of clumped smaller plants along the eastern (outside) edge of the planting. Also possible for some fill-in planting of shrubs in unplanted/failed areas along edge of previous planting, for visual continuity and thickening of corridor. A smaller triangular area left unplanted to the west of the previous planting, approx. 10x10x10m, adjacent to Barracks Flat

Drive is suitable for a smaller planting (site 1). Overall, avoiding overplanting of larger trees to encouraging shrub survival as understory.

(For 2024 or another opportunity, further north towards River Drive would allow thickening of the corridor, subject to checking on the utility of the concrete structure nearby.

Other planting sites would add some visual diversity to the entire site, while leaving the area amenable to mowing/slashing and recreational access.)

- Main site: 5 trees, 15 medium-large shrubs.
- Others: 70 trees, 175 medium-large shrubs.
- Smaller species along 50m edge of sites 2 and 3: 100 total.
- Fill in, sparse areas at edge of previous planting: 10 shrubs.
- (NB: total of 75 trees, 200 shrubs, 100 small species = 275, so at very least 2 plants per volunteer if numbers similar to 2022 Qbn river National Tree Day planting.)

Considering the previously planted species mix, seasonal, visual and species diversity, wildlife habitat, the site, recommendations from QPRC, ACTG and elsewhere regarding suitability for future climate conditions, favouring local species and those that eventually produce tree hollows, the following are recommended depending on availability (note ** two shrub species to be supplied by Qbn Landcare, QPRC to order the rest):

- Large trees. *Brachychiton populneus* (kurrajong), *Eucalyptus melliodora*, *polyanthemos*, *viminalis* and *goniocalyx/nortoni* (yellow box, red box, ribbon gum, bundy/mealy bundy, the latter two interchangeable), *Casuarina cunninghamiana* (river sheoak). Total numbers: 10 each, or equivalent to total 75.
- Medium-large shrubs: *Acacia rubida* and *mearnsii* (red stem and green wattle), ***Callistemon sieberi* (river bottlebrush), *Leptospermum obovatum* and *brevipes* (creek and slender teatree), *Melaleuca*

parvistaminea (swamp paperbark), *Bursaria spinosa* (Australian blackthorn), ** *Gynatrix pulchella* (hemp bush), *Indigofera australis* (Austral Indigo), *Pomaderris betulina* (birch leaf Pomaderris), *Kunzea parvifolia* (violet Kunzea). Total numbers: 15 each or equivalent to total 200.

- Smaller plants for fringe. *Lomandra longifolia* (spiny headed matrush), *Poa labillardieri* (river tussock), *Dianella revoluta* (black-anthered flax lily), *Grevillea lanigera* and *ramosissima* (woolly grevillea and fan grevillea), *Acacia buxifolia* (box leaved wattle). Total: 100.
- ** Qbn Landcare to supply river bottlebrush and river hemp bush, 30 or so of each.

Preparation: QLC to delineate planting area. QPRC to spray (re couch-rich grass area) and rip the site (depth 150mm?). Spot respraying as necessary. Piles of mulch (10-15) deposited to the east of the ripped planting area prior to the day (mulching to follow planting on the day). Planting program to be detailed by QLC closer to the date.

Notes from 21/3/23 onsite meeting. Some QPRC plantings recently on site: recommend no more in this area until after NTD. Start 10am on the day, ensure site well set up for planting before then. QLC has sufficient tree guards and stakes. QLC has spare gloves for volunteers.

QPEC to spray site asap, before couch grass becomes dormant. Then rip site following contours when possible. Boundary marked with white paint spots but can be staked out by QLC before at short notice. Water tanker on site, to fill 2-3 500 litre containers to allow easy watering by volunteers.

