











Natural Heritage System Protection and Climate Resilience

Protecting and restoring the natural heritage system is one of the most important climate change actions we can undertake for local ecosystems.





































Treed Ecosystem Offset Ratios

| Basal area range (m²/ha) | Average basal area (m²/ha) | Lag time factor – Basal area of 10 year (m²/ha) | Offset Ratio | | | |
|---|----------------------------------|---|--------------|--|--|--|
| 0 - 10 | 5 | 5 | 1:1 | | | |
| 10.1 – 20 | 15 | 5 | 3:1 | | | |
| 20.1 - 30 | 25 | 5 | 5:1 | | | |
| 30.1 - 50 + | 40 | 5 | 8:1 | | | |
| Ratio x Area Removed (ha) x 1200 trees/ha | | | | | | |



| Understory Offsetting | | | | | |
|--------------------------------|---------|-------------------------------|---|--------------------|--|
| Layer | Cover % | Total Area Removed (ha) | Planting Density (units per hectare) | Required Offset | |
| Canopy trees | 0 | | 1200 | 0 | |
| Sub-canopy | 0 | | 1200 | 0 | |
| Tall shrubs | 25 | | 2750 | 688 | |
| Low shrubs | 10 | | 11000 | 1100 | |
| Forb | 15 | | 25 kg | 3.75 kg | |
| Graminoid | 10 | | 25 kg | 2.5 kg | |
| Emergent | 0 | 1 | 110,000 | 0 | |
| Floating- leaved aquatic | 0 | | 110,000 | 0 | |
| Free-floating | 0 | | N/A | 0 | |
| Submergent | 0 | | 110,000 | 0 | |
| Open water | 0 | | N/A | 0 | |













Offsetting **Not Intended** for:

- Intensive Recreation (e.g. picnic areas)
- Supporting Infrastructure (e.g. parking lots, visitor centers)

Combined Offsetting with Greenland and Other Securement

Most lands secured through offsetting could be used for **complimentary passive recreation activities** (e.g. footpaths, fishing, bird watching)





Key Messages

- Offsetting is compensation for development
- Guided by principles
- Net gain in ecosystem function
- Tool to address urban expansion and intensification
- Help mitigate climate change and manage natural assets

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