## Comments in support of the general initiative to conserve biodia

My name is Linda Stewart - private citizen

In reviewing the plan – I thought it might be useful to consider some actual examples of biodiversity decline right here in our own city.

To do so, I contacted several field naturalists who have been studying nature over many years to gather some first-hand information about the state of biodiversity in Calgary.

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Two members I contacted who have extensive field experience at Nose Hill Park (North America's largest urban grassland park) have noted a marked decline or disappearance of a variety of species such as the Richardson Ground Squirrel (our native gopher), which provides food for other species such as owls, hawks, coyotes and badgers. The biodiversity action plan itself notes the disappearance of the Sharp-tailed Grouse from the park.

A breeding bird census was conducted by volunteers on a 60-acre portion of the SW corner of Nose Hill each May and June from 2003 to 2009. Of special interest was the Clay-coloured sparrow — a grassland bird species that should be attracted to this large grassland park. Results showed a decrease in numbers of Clay-coloured sparrows by approximately 40% over the 6-year study, compared to the relatively stable population in Alberta in general. Previously nesting species that are no longer seen in the park include Western Meadowlark, LeConte's and Baird's Sparrow, Spotted Towhee and Brown Thrasher.

Gus Yaki and a number of volunteers have been conducting a monthly birding survey along a stretch of the Elbow River from Stanley Park to Glenmore Dam since the summer of 1993. Over the last 21 years, they have found that at least 15 once-common species of birds have totally disappeared along the route, while many other once-abundant species have greatly declined.

Suzanne Visser observes, after 20 years of plant surveys in Calgary's natural areas a noticeable reduction in abundance of certain species. For example, flowering plants like Hookers Townsendia, Moss Phlox and Yellow Umbrella Plant are species which are susceptible to disturbance from trampling and may be declining as a result of increased soil compaction due to foot and bicycle traffic in sensitive

areas. Others, such as Yellow Lady Slipper, Bracted Bog Orchid and Prairie Gentian may be declining in numbers as a result of habitat fragmentation caused by too many trails and too much disturbance by humans, dogs and bike activity. The greatest concern is the potential disappearance of rarer species which are the most sensitive to human disturbance.

Many relatively hardy native plants are disappearing from some of our parks and natural areas because they are simply being beaten down by over-use in areas such as the upper plateau of Edworthy Park, or being out-competed by non-native invasive plant species. If plants cannot grow to maturity, blossom and set seed, they are doomed. So what is the problem if we lose a few (or a lot) of native plants? Well it means, for example that we are losing the biodiversity of insects that pollinate most of our plants. The larvae of the native insects need to feed upon the leaves of native plants – they cannot survive on invasive plant species. The lack of insect larvae means that many of our nesting birds and amphibian species are dying from lack of food. When adult birds die without replacement the species becomes extirpated. Time is of the essence.

As an example, there is an area of about 4 or 5 hectares on the north side of the Weaselhead Natural Environment Park that has been totally taken over by Caragana – a very hardy and aggressive European invader. Gus Yaki describes this area as a "biological desert" with little living there except Caragana. In 10 years it will dominate a much larger area of the park - every seed of invasive plants survives because none of our native wildlife feed on them, so these plants increase exponentially.

The greatest concern of those who know and love Calgary's natural areas is the concern over timing. The reports we have before us have been 5 years in the making. Now it seems we still have an implementation plan to come and some targets for 10 years in the future. The measures suggested seem minimal in scope and the timeline far too lengthy. We need to be thinking about what we can do right now!