

#### Key messages

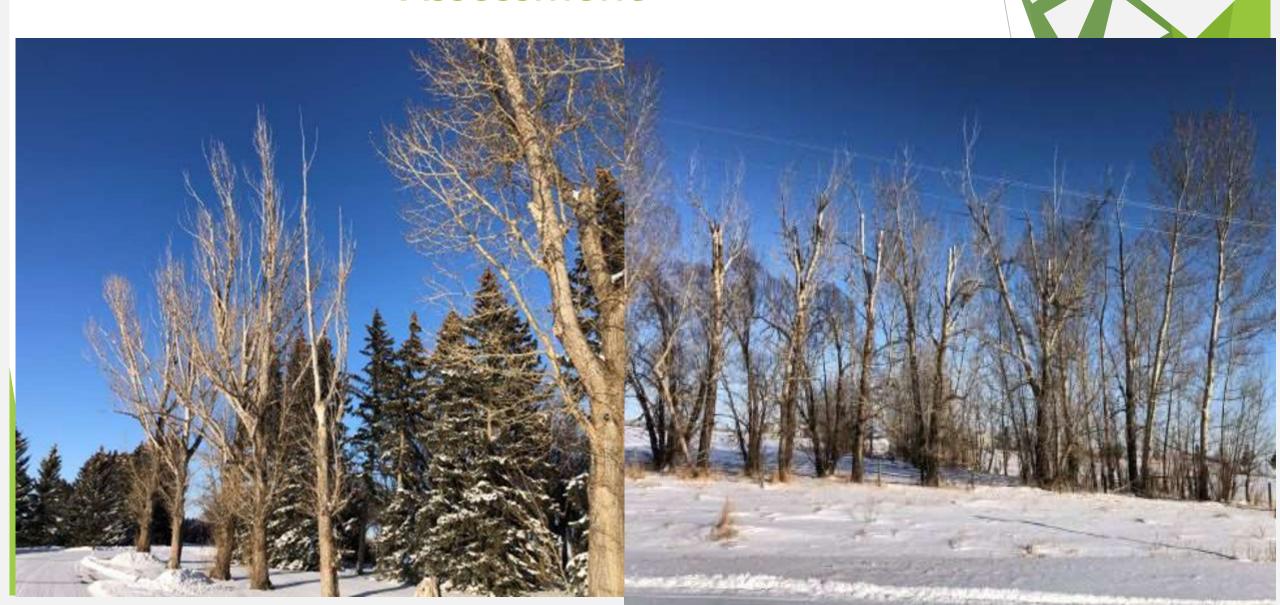
- Assess how many trees are dead and dying
- SAFETY consideration due to potential hazard risk s
- What tree and shrub species are declining
- Space available for expansion or no new space available
- Understory and interplanting planting options
- Natural regeneration through root suckering or stump sprouting
- Natural regeneration through seeds
- Choosing appropriate tree and shrub species
- Plant trees properly this the MOST IMPORTANT thing to do
- ▶ Water properly each tree requires a different amount of water
- After new trees were established removed dead and decadent trees







## Assessment



Gaps



# Natural regeneration



### Seed production

Ash - 16 species in North America, prolific seed producer and readily established in disturbed areas with natural regeneration

American Elm - prolific seed producer when mature - site disturbance will encourage natural regeneration White spruce - produce seeds every 4-7 years but in city more frequently due to stress conditions - soil disturbance is key for natural regeneration

Pine - produce seed every year but for natural regeneration needs fire or soil disturbance created by fire

Aspen - suckering is the most common

Poplar clones - from stump - coppicing

#### Mature Colorado

(blue) spruce produce 79,500-132,500 seeds per bushel of cones

#### Tree and shrub coppicing

- Almost any shrub species can be rejuvenated through coppicing.
- Cut back 6 to 8 inches above the ground to provide a good shrub row.
- Broadleaf trees that have shown good results are green ash, hybrid poplars cottonwood, boxelder and the elms, especially Siberian elm.
- Tree seedlings grow wild from seed of existing species.



#### Conclusion

- ► Take time and assess overall health of your older shelterbelt
- Consider safety and tree hazard
- Plan what options you may choose
- Under and interplanting is common option
- ► Encourage natural regeneration seedling from own shelterbelts are BEST
- Natural regeneration through coppicing and suckering is great option
- Leave some dead and snag trees as they are great habitat for many birds and beneficial insects
- Don't rush to remove all dead trees

