(Picture from BEEprotective.org)

Bee Gardens in Reno - Save the Bees Reno - savethebeesreno.com

****TIMETABLE****

Meeting with City of Reno and Washoe County 1:30 PM Aug 26, 2014

To Do

1. Determine exact ask for City of Reno meeting
2. Create material like this example:
    a. http://www.diversifynevada.com/documents/IndoorAg_brochure.pdf
3. Create proposal for tuesday meeting with City of Reno
4.

OUTLINE

1. Cover
2. Splash objective page (cristal clear and achievable)
3. Outline
4. Summary
5. **Proposal page with local example garden sites.**
6. Community Benefits
7. Secured Garden Resources
    - Volunteer commitments
    - Keep Truckee Meadows Beautiful Programs
    - First Bee Hotel
    - Organic plants, starts, seeds and trees/shrubs
8. Advantages of Pesticide Free Commitment
    - Pollinator Health
    - Local beautification
    - Urban restoration
    - Human Health

- Local beauty
- Community ownership
- National reputation
- Increased Volunteer base

9. Denver Case Study
10. Portland Case Study
    - Full (75 page) case study provided as a supplemental
11. Addressing Concerns
12. Action Steps
13. Do the bee dance. ;)
14. Appendix
    - Honey Bee Timeline
    - Pesticide Health Effects
    - Alternatives for Neonicotinoids (Pesticide Action Network, 2014)
        - Chemical_and_non-chemical_alternatives_to_neonicotinoids.pdf
    - Common Harmful Products (Center for Food Sarety, 2014)
        - pesticide_list_final.pdf
    - Different Reasons Motivate / Same Goal Attained

RESEARCH WRITEUPS

(Picture from BEEprotective.org)

(Text Source: BEEprotective.org)

Introduction. Pollinators are important members of various land ecosystems. How we manage these ecosystems and landscapes therefore plays a critical role in long-term pollinator health. The expansion of urban, suburban, and agricultural areas reduces pollinator habitat and access to food. Intensive chemical use in these areas harms these beneficial organisms. Pesticide applications to manage weeds and insects along roadsides, in forestland, parks, and rights-of-ways expose bees, birds, butterflies and other beneficial organisms to acute and sublethal levels of pesticides, which can result in reproductive abnormalities, impaired foraging, and even death. Eliminating hazardous pesticide use along with the planting of pollinator forage and habitat areas with native vegetation are the best options for conserving pollinators.

This is Sarah , My addition to this very well thought out document is that City of Reno needs to know that pesticide free parks in Reno is a marketable change. We have many outdoor adventurous and family people that move to Reno and having pesticide free parks will be a plus!

Home and Garden.

Backyard trees, gardens and beekeeping are great ways to support biodiversity and pollinators. Intentionally providing water, food and forage to pollinators will encourage and boost pollinator populations in your community.

What to do…

- Plant colorful, flowering plants that are attractive to bees. Don't have a garden? Balcony and window plants are also great ways to support pollinators. Make certain that all plants are ORGANIC. Most plants you can buy at local garden shops big and small have been treated with neonics. These deadly chemicals cannot wash off and last up to 4 years on each plant or seed. Always choose heirloom and/or organic.
- Encourage birds with bird baths and organic, non gmo seed.
- Eliminate the use of toxic pesticides. Pesticides kill beneficial organisms, like bees, that provide important ecosystem services.
- Go organic- use organic soil management, pest prevention, and least toxic practices for your lawn and garden. Take the pollinator-friendly Pesticide Free Zone at bit.ly/LawnDeclaration or Join Bee Safe Neighborhoods and become your communities first Bee Safe Coordinator. http://livingsystemsinst.org/content/bee-safe-neighborhoods
- Increase biodiversity, which supports pollinators. See bit.ly/DIYbiodiversity.
- See our BEE Protective Habitat Guide for more information on bee-attractive flowers, and how to create a pollinator-friendly garden. Available at www.BEEprotective.org.
- Create a Bee hotel. http://www.foe.co.uk/sites/default/files/downloads/bee_hotel.pdf
- Pennsylvania State University
  Department of Entomology

  http://ento.psu.edu/publications/are-neonicotinoids-killing-bees
  Products approved for home and garden use may be applied to ornamental and landscape plants, as well as turf, at significantly higher rates (potentially 120 times higher) than those approved for agricultural crops.

Use Least-Toxic Pesticides. Even least-toxic pesticides may impact bees, so proper timing and location of application is important. Particularly, they should not be applied while plants are blooming or during mid-day when pollinators are foraging. The following list includes pesticides that are considered least-toxic by Beyond Pesticides and acceptable for use against pests as a last resort. Be sure not to spray when bees are present:

1. Fatty acid soaps/ insecticidal soaps–Effective in controlling many soft-bodies insects such as aphids, caterpillars, crickets, fleas, flies, and mites.
2. Horticultural and essential oils–Horticulture oils are effective in controlling a variety of insect pests and some plant diseases like rusts and mildews. Some effective essentials oils include citrus oil, garlic, neem, and tree oils.
3. Microbe-based pesticides–Microbial pesticides contain living microorganisms or the toxins they produce as active ingredients. Examples include beneficial nematodes and milky spore.

Use Least-Toxic Herbicides and other organic alternatives.

Use alternatives that are safer for your yard, family, pets and local pollinators. Flame weeding, beneficial pests, companion planting, permaculture as well as other easy and affordable tools for controlling weeds are better for you and your community.

http://www.midwestproducer.com/news/crop/flame-weeding-seen-as-alternative-to-herbicide-control/article_531dd3d2-157b-11e3-bc9f-001a4bcf887a.html

http://www.dummies.com/how-to/content/natural-alternatives-to-garden-chemicals.html

Successfully Controlling Noxious Weeds with Goats
The natural choice that manages weeds and builds soil health. Download PDF.
*****DOES ANYONE REMEMBER THE NAME OF THE RENO CITY COUNCIL WOMAN WHO SUGGESTED THIS IDEA A YEAR OR SO AGO?*********

Implement Pesticide Neighbor Notification law.
State of New York
Office of the Attorney General
A report on the SIX COUNTIES' EXPERIENCE
View Full report

Implement, market and share Pesticide/Chemical Public Alert system and online map.

- What chemical is being used
- Why is it used
- When
- Where
- Who

Wetlands, Meadows, and Other Grasslands. Many species of wildlife depend on wetlands and grassland habitat. Unfortunately, these habitats are being replaced by human development, and many birds have declined in recent years due to the lack of habitat. Grass and flower species that are native to your region must therefore be encouraged. Meadows require minimal disturbance to the landscape, are low maintenance, reduce the need for pesticide application, and provide many more different native plant, insect and animal species than monocultures. They also provide year-round cover and food for pollinators and other wildlife.

Mosquito Management: The Fundamentals

Safe alternatives to managing West Nile Virus in wetlands

Integrated Pest Management
Erich J. Kesse Preservation Office Smathers Libraries University Of Florida
904-392-6962 Fax: 904-392-7251 erikess@nervm.nerdc.ufl.edu
Download State of Florida plan here.

Forestland. Forests provide habitat for a wide range of wildlife, supplies timber, and can be a place for recreation. Over harvesting of forest lands and increasing human encroachment reduces forest acreage which in turn decreases habitat for wild pollinators. Forest management programs that apply toxic pesticides to control weeds or insects can also target forest birds and beneficial insects. It is therefore important that forestry management include organic techniques that do not rely on toxic pesticides, but uses biological and mechanical controls. The amount of pesticides, herbicides, fungicides and other chemicals in our forests are a chemical soup of death. This link above links to a site that shows you all the different types of chemicals being used on our national forests.

What to do…

- Support organic forest restoration efforts when possible.
- Plant seedlings native to your region. never treated with neonics.
- Maintain biologically important areas such as virgin and old-growth forests and wetlands without the use of gmos, Bt crops and/or chemicals.
- Encourage natural succession after harvesting when possible, but active replanting of forest land is also encouraged.

Nevada Water Ways -
wells, surface water, streams, rivers, ponds, refuges and lakes
"Major pesticides found in Truckee River on regular basis." Angie Paul USGS in Nevada.8/22/14.
View pesticides found in all water sample types throughout entire state of Nevada on government website here: http://pubs.usgs.gov/fs/1997/0075/report.pdf

Pesticides and other chemical run off affecting Lake Tahoe
http://pubs.usgs.gov/wri/1997/4106/report.pdf

UPDATED: Verified number of US deaths related to pesticides OVER 300,000 in USA alone.

http://youtu.be/6AsHMsUwV0U

Thank you for reaching out to Beyond Pesticides! It looks like there are

some sources that have numbers on pesticide-related deaths and hospital admissions. Here is what my colleague and I were able to pull up for you:

Our local water resources are testing positive for deadly pesticides as well. Washoe County Health Department Vector Borne Division says West Nile Virus is a deadly threat to the citizens of Washoe County.

Our studies from reputable sources like the EPA, CDC and BeyondPesticides.org say something else.

The Environmental Protection Agency estimates that 10,000-20,000 physician-diagnosed pesticide poisonings occur each year in the Agriculture industry alone. source: http://www.cdc.gov/niosh/topics/pesticides/

"The total number of pesticide poisonings in the United States is estimated to be 300,000/year) (EPA, 1992)." -The incidence of cancer in the US ranges from 10,000 to 15,000 cases per year. If the incidence of cancer among Latino farm workers per year were applied to the rest of the US population, there would be 83,000 cases of cancer per year associated with pesticides. 3.

source: http://www.beyondpesticides.org/documents/pimentel.pesticides.2005update.pdf

Documented Pesticide Hospitalization and/or Death reports here:

http://www.cdph.ca.gov/programs/ohsep/Pages/PesticidePubs.aspx#reports

Pending investigation in Reno Nv. City employee caught on tape illegally exposing bystanders and cars to deadly pesticide.

http://youtu.be/rhtYu9aABKM

Presence of organophosphorus pesticide oxygen analogs in air samples

A number of recent toxicity studies have highlighted the increased potency of oxygen analogs (oxons) of several organophosphorus (OP) pesticides. These findings were a major concern after environmental oxons were identified in environmental samples from air and surfaces following agricultural spray applications in California and Washington State. This paper reports on the validity of oxygen analog measurements in air samples for the OP pesticide, chlorpyrifos.
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3524990/

1. Aston L, Seiber J. Fate of summertime airborne organophosphate pesticide residues in the Sierra Nevada Mountains. J. Environ. Qual. 1997;26:1483–1492.
2. LeNoir J, McConnell L, Fellers G, Cahill T, Seiber J. Summertime transport of current-use pesticides from California's Central Valley to the Sierra Nevada mountain range, USA. Env Tox and Chem. 1999;18(12):2715–2722.

http://emedicine.medscape.com/article/1175139-overview

State to boot smog-causing pesticides from S.J. Valley

Department experts calculate that VOC emissions from pesticides in 2013 hit a "trigger level" of 17.2 tons per day in the Valley.
http://www.recordnet.com/article/20140821/NEWS/140829723/101123/A_BIZ

Agriculture. About 20 percent of U.S. land area is cropland. Most of these crops undergo heavy chemical-intensive production. Corn and soybeans, which account for the majority of cropland, are treated with systemic pesticides and/or are genetically engineered (GE) to tolerate pesticide applications. Systemic pesticides and GE cropland not only destroy natural pollinator habitat, but also exposes pollinators and other wildlife to toxic pesticides.

Thousands of deaths per year. Pesticide Exposure
http://earthjustice.org/features/campaigns/the-faces-and-voices-of-pesticide-poisoning?gclid=Cj0KEQjw1NufBRCx8ayaqY2t6KkBEiQA2nLWm-UI6PVpxngKd6S1Db3-7PseemA24nookGRYViMJG7kaAp2E8P8HAQ

World Health Organzation PDF report 2001
http://beehabitat.com/wp-content/uploads/2014/08/Pesticides.pdf

Organic Farming Supports Pollinators. Organic agriculture effects good land stewardship and reduces hazardous chemical exposures in the environment and for workers on the farm. The use of soil building practices, least-toxic chemical inputs and sustainable management methods, which embrace crop rotation and crop diversity help support populations of wild and domestic bees, birds and other wildlife. Find out more about organic agriculture.

What to do...

- Plant an organic vegetable garden or support your local organic co-op.
- Use Beyond Pesticides' Eating with a Conscience database to educate yourself and others about the impacts of chemical use on the food we eat. See www.EatingWithAConscience.org.
- Buy organic whenever possible to support sustainable and environmentally sound practices. See www.beyondpesticides.org/organicfood for resources.

(Text Source: Portland Parks and Recreation Summary, Overview, Assessment and Evaluation)

Sustainability Test. The partners requested that PP&R provide park sites that would be managed without the use of pesticides and offered to recruit the volunteer labor needed to carry

out the expected weed control for these sites. PP&R agreed to a three-year trial program in three selected parks to determine if volunteer driven pesticide free parks were a viable and sustainable management option for maintaining park land. This trial program was completed in October of 2007. Important criteria for success included support of general and recreational park uses and bureau priorities, adequate volunteer involvement, fulfillment of park user group needs, and fiscal feasibility.

Park Maintenance. During the three years volunteer work parties were held 1 to 2 times per month and weeds removed through hand, mechanical and cultural methods. Over the three years 244 volunteers put in 1,374 hours removing weeds at the three parks. At this level of volunteer labor it was possible to maintain weeds in the parks at levels comparable with other Portland Parks, and park management goals were generally met. This level is not a weed free level but a level at which weeds are not determined to have a detrimental effect on a park users enjoyment of the park either through being aesthetically displeasing or causing a hazard in the park. Irrespective of feasibility and costs, many parks are not suitable for this management style due to factors such as high weed pressure, size, invasive weed presence, and other factors.

Pesticide Free Park Case studies:

From Jana: Here is a list of & great bee-safe garden to visit for inspiration:

1. Great Basin Community Food Coop - 240 Court Street, Reno - (775) 324-6133
2. River School Farm - 777 White Fir Street, Reno - (775) 747-2222
3. Lost City Farm - 512 South Center, Reno
4. Arrowcreek Fire Station - 13500 Thomas Creek Road, Reno
5. Reno-Sparks Indian Colony Health Clinic - 1715 Kuenzli Street, Reno - (775) 329-5162
6. Patagonia Outlet - 8550 White Fir Street, Reno - (775) 746-6878
7. West Street Median Garden - Center of West Street near First Street, Reno

The U.S. Environmental Protection Agency estimated that some 857 million pounds of conventional pesticide were used in the country in 2007. Roughly 20 percent of that was linked to home and garden use or industrial, commercial and governmental efforts.
http://articles.chicagotribune.com/2014-05-13/news/chi-chicago-parks-dandelions-chemical-free-parks-20140513_1_park-district-lawn-weeds

City of Lawrence Parks & Rec Pesticide Free Plan
http://www.lawrenceks.org/assets/agendas/cc/2005/03-29-05/03-29-05H/proposed_pesticide_free_parks_plan.html

San Jose California
Pesticide-free Park and Demonstration Gardens at Guadalupe River Park, San José, California

Ashland Parks & Recreation currently has seventeen parks that are pesticide free. For more information on Ashland's Parks and the Department's Integrated Pest Management Policy please visit the Ashland Parks and Recreation home page atwww.AshlandParksandRec.org or call the main Parks & Recreation office at 541.488.5340.
http://www.ashland.or.us/Files/Parks%20IPM%20Policy%20-%20Final%20-%20adopted%205-24-10.pdf

The City of Renton Washington maintains 700 acres that are pesticide free all of the time. These are natural and open space areas. Examples of locations include the Cedar River Natural Zone, Honey Creek, May Creek, and the Black River Riparian Forest.
http://rentonwa.gov/living/default.aspx?id=1894

Pesticide-free parks in Calgary

http://www.calgary.ca/CSPS/Parks/Pages/Planning-and-Operations/Pest-Management/Pesticide-free-parks-in-Calgary.aspx

Sustainable Shorewood Action Plan

Actively manages a pesticide-free lawn maintenance program on all of the green space maintained by the Village.
http://www.villageofshorewood.org/index.asp?Type=B_BASIC&SEC=%7BF867B02D-6287-487A-BFE3-8F7FEB954F16%7D

and

http://watoxics.org/healthy-living/healthy-families/healthy-schools/working-with-your-school

I am learning that there are possibly hundreds of cities around the USA that are currently running a successful pesticide free park program. ;)

King County Pesticide Free
King County **this week released a new, interactive map that shows users where to find pesticide-free or reduced places for kids and pets to play in the area.**
http://b-townblog.com/2012/08/27/county-releases-map-showing-pesticide-free-places-for-kids-pets-to-play/

View map here: http://www.lhwmp.org/home/pfparks/index.aspx

We need to find out the cost to build a similar map or tie in with their existing technology. Open source?

Ashland Pesticide Park program in the news
http://www.dailytidings.com/apps/pbcs.dll/article?AID=/20100402/NEWS02/4020308/-1/NEWS07

Some parks cancelled their pesticide free program stating too labor intensive or expensive.

Defunct pesticide free park and what we can do better to keep Reno Pesticide free.
http://www.heraldnet.com/article/20130505/NEWS01/705059931

Prior Management. It is important to note that pests, including weeds, in all of Portland's parks are currently managed through Integrated Pest Management (IPM), a standard for responsible and sustainable land management. IPM uses many strategies to achieve goals, combining cultural, physical, biological and pesticidal methods in a holistic and informed manner. Many citizens are not aware that our program has eliminated much pesticide use, removed unsuitable pesticides from use, and has been used as a model for environmentally sensitive land management throughout the country.

Development of a Memorandum of understanding (MOU). Portland Parks & Recreation worked with the partners to document and communicate acceptable park maintenance standards to assure park needs were fulfilled. A park maintenance guide (attached as part of the MOU) was also provided to volunteers so that they were able to evaluate the weed control required at the parks. Issues resolved were park choice, maintenance standards, equipment use, volunteer safety, volunteer coordination, program evaluation and consequences if trial parks were not maintained at the desired level. The final MOU was a very inclusive document outlining specifics of the program.

Trial Work Parties. **(Reno Parks & Rec has over 100 volunteers as of 2014) These volunteers help pick up trash, remove graffitti and other beautifying tasks through out city parks.**

During the trial period no weed controlling herbicides were used in the three parks. Instead of these materials, volunteer work parties hand weeded, flame weeded, and placed mulch to manage weeds. The hand tools used most commonly by the volunteers were hula hoes and small digging forks along with wheelbarrows, shovels and rakes. Initially very little mulching was done by the work parties but this became a more extensive practice to help reduce weed growth. Work parties with large turnouts, occurring once or twice a year, were used to place mulch. Student and community volunteer programs were tapped for the additional labor. The program coordinator scheduled mulch deliveries to be made by PP&R's equipment division, with a two week lead time needed. The preferred mulch used was PP&R's Urban Forestry division wood chips. These chips are used throughout Portland's parks, and provide the best weed barrier. PP&R staff also continued to employ their standard forms of non-herbicidal integrated pest management methods in these parks, such as aerating and overseeding of the park turf and mowing at the correct height and frequency to minimize weeds. On a typical work party day the Key volunteer arrives and unlocks the tool storage box and unloads tools. As volunteers arrive they sign PP&R's required insurance forms and then are assigned a task for that day. PP&R provides gloves as well as all the tools required. Tasks range from shoveling mulch, pushing a wheelbarrow, spreading mulch, hand weeding or weeding with hula hoes. Weeds are collected and placed in bags or piles for pick up and disposal by PP&R maintenance staff. The Key volunteer makes sure all tools are returned to the toolbox and then secures the box. They also fill in paperwork showing the number of person hours spent and on what task. This information along with the completed insurance form is mailed to the PFP program coordinator.

Program Evaluation Criteria:

1. Maintenance Standards
    a. Criteria: The Program techniques support general and recreational park uses as well as, or better, than traditional park maintenance techniques.
    b. Criteria: The Program will be considered successful when the three designated pesticide free parks have been managed without the use of pesticides for three years.
2. Volunteer Involvement
    a. Criteria: Program has sustained volunteer involvement.
    b. Criteria: This volunteer effort is community based and replicable by PP&R staff.
3. User Group Support
    a. Criteria: The Pesticide Free Parks is supported by neighbors and the community.
    b. Criteria: Program meets the needs of the baseball users groups.
4. Funding
    a. Criteria: Continuing the program after the three year trial is financially feasible, given program costs and benefits and bureau priorities.

Volunteer Outreach. The volunteer coordinator and key volunteers have coordinated and directed groups of church, University and secondary school volunteers in park maintenance. An outreach program, Pesticide Free Parks Celebrations, has been held each year at each of the parks, marking and publicizing the Pesticide Free Parks program in the park neighborhood. Volunteer work parties are publicized in PP&R's volunteer newsletter, the Portland Metro Green Scene, and the Portland Tribune calendar. A June story in the Portland Tribune highlighted the Pesticide Free Parks program. The PP&R website provides information on volunteer opportunities. Megan Kemple also has recruited volunteers at many community events over the last 2.5 years. 244 people volunteered at least one day during the three years. It is expected that many of these volunteers have a heightened sense of what it takes to maintain Portland's parks at current service levels.

Neighborhood Support. For the pesticide free parks program neighborhood support was an important factor. It was found that people were willing to travel some distance to be involved in the volunteer work at the park. Some volunteers were willing to travel to support the trial program goals and their desire for a park maintained without pesticides. Sources of ready volunteers enhance the support for this park management style, such as adjacent schools, universities or existing volunteer groups.

Here is a short agenda of the items I will discuss tonight:

What are we asking from Reno and Washoe county parks department?

We are asking for Pesticide Free Parks, Bee Habitats throughout the city and transparency in regards to what, where, who, why, when and how much does it cost (or who got paid how much) to treat with pesticides in Washoe County and City of Reno Nv.

1. we need to know what is being sprayed, where, why, when, by who and how much? this information needs to be public and shared between each department and the public online. can easily be added to an online map where the public and local authorities can better track the life of these chemicals in our water, land and public areas.

2. we need protected areas at city and county parks that are pesticide free. marked as such. this needs to be an ordinance and/or law.

3. notification alert system: when a chemical is going to be used: we need to know when, why, where, who, how much? sent via email, text, phone call and/or with media outlets.

4. what date can we start phasing out pesticides? what park will be the first park we convert? how can this be an ordinance/law for Washoe County?

- current trees, shrubs, plants, bushes, flowers that are GMO and/or roundup ready in public areas.

- name of vendor they buy plants, chemicals, supplies from with yearly budget of department.

- how long have they used these pesticides? is their historical data online?

We must use BEE Safe plants as not all are safe.

- Jana V. Permaculture Landscape Designer created plant list and design templates we can use throughout the city. Drought resistant, native and pollinating plants, trees, shrubs and flowers. We have close to 100 volunteers for Bee Habitat and the City has their own volunteers with Boy Scouts of America, Rotary, Keep Truckee Meadows Beautiful, and other organizations.

Future Agenda Items

1. presentation with City Council and/or get on Agenda as it was unclear if this is happening. Hillary Schieve at meeting said "someone get with her and her team"...

2. washoe county health dept. vector borne division online map alert system. what, who, why, when, where, cost.

3. wchd vector borne div. text alert system and better advertising.

4. wchd vector borne div. no spray list and better advertising.

5. get together to make/build bee and insect hotels. art party! potluck fun.

6. install Reno's first Bee Hotel at Morris Burner Hotel. Other site suggestions.

7. choose BeeHabitats first bee habitat location.

8. volunteer outreach: list of folks who can call or speak on site with local garden shops, educating them on the benefits of labeling plants that are Bee Safe.

9. Audubon Society presentation Sept 27th.

10. GMO Free Halloween

11. Queen Bee Fashion Show

12. 2015 Reno Bee Crawl approval with Reno River District.

13. Purchasing vacant lots and land throughout Washoe County and Reno Nv to install bee safe gardens.

14. Seed balls and sling shot contest.

15. Yearly Spelling Bee.

16. Golf courses, HOA, Business Landscapes, Schools and Bee Safe Neighborhoods throughout Washoe County.

17. Other ideas? Important News?