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Subject: Page 2 policy recommendations

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22, G5-P4

Permaculture is a holistic design philosophy that aims to create sustainable systems, while agriculture is a more general term that can refer to a variety of farming practices:

Scope

Permaculture is a broad design philosophy that considers social and economic aspects, while agriculture is a more general term that can refer to a variety of farming practices.

Goals

Permaculture aims to create self-sufficient systems that mimic natural patterns and relationships, while agriculture can be an energy source that ships nutrients off to market.

Scale

Permaculture is often used in smaller, community-based settings, while regenerative agriculture can be more easily applied to large-scale farming.

Soil health

Permaculture promotes improved soil health for sustained crop yields, while traditional farming methods can deplete soil fertility over time.

Pollution

Permaculture can reduce air, groundwater, and soil pollution by avoiding harmful chemicals and reducing the amount of material used in gardening.

Energy

Permaculture aims to reuse energy and resources as much as possible, while agriculture can be an energy source that ships nutrients off to market.

The main difference between permaculture and a farm is the energy cycle. A farm is an energy source. Whereas, a permaculture site creates an energy loop.

34, G6-P5

Educational teams keeping up to date with the latest science, permaculture, aquaponics, economic, biochar, biomimicry, Biomimicry is innovation inspired by nature.

And Synthropic technology which refers to a concept that combines principles of synthetic biology and ecological sustainability. It emphasizes the creation of systems that are not only technologically advanced but also harmoniously integrated with natural processes. The goal is to develop solutions that mimic or enhance natural ecosystems, promoting resilience, efficiency, and sustainability.

Bio Char explained

<https://youtu.be/d-M5DEQWraU?si=Awui9pekBomO-DVK>

Here is a concise qualitative summary of the key points from the video:

Biochar is a type of charcoal produced through the process of pyrolysis, which involves the thermal decomposition of organic biomass (such as wood) in the absence of oxygen. This results in a highly porous, carbon-rich material.

Biochar has a long history, originating over 2,500 years ago in the Amazon basin, where it was used to create nutrient-rich "Terra Preta" soils. Today, biochar has a variety of applications, primarily for soil remediation and water treatment due to its large surface area and ability to adsorb nutrients and contaminants.

To use biochar effectively, it needs to be crushed into small particles and "inoculated" by mixing it with nutrients, compost, or other organic matter. This helps fill the porous structure and prevents the biochar from drawing nutrients away from plants.

The video describes different methods for producing biochar, including the author's preferred "biochar retort" system, which allows for a relatively hands-off and efficient pyrolysis process. Proper handling and preparation of the biochar is emphasized as an important step before applying it to soil.

Overall, the video provides a clear, layman's explanation of what biochar is, how it is made, and its various uses as a soil amendment and environmental remediation tool.

Aquaponics

https://youtu.be/T15gXm6ha_I?si=6lRiJ6B5iKNJPHqd

Here is a concise summary of the key points from the text:

The video discusses an aquaponic system, where fish waste is used to fertilize plants in a self-sustaining cycle. The system involves a fish tank, grow beds, and a recirculating water flow. This allows the plants to thrive without soil, while the fish waste provides the necessary nutrients.

The narrator emphasizes the benefits of aquaponics, including its sustainability, low maintenance, and ability to grow food even in desert climates. He shares his personal journey, starting with unsuccessful traditional gardening attempts before discovering aquaponics.

The narrator highlights the advantages of aquaponics for his family - it has brought them closer together as they collaborate on the system's care and maintenance. He encourages viewers to start small, even with just a countertop setup, and not to be intimidated, as aquaponics can be a rewarding and impactful hobby.

Throughout, the narrator emphasizes the importance of self-sufficiency, reducing reliance on commercial food sources, and finding innovative ways to grow food, even in challenging environments. The aquaponic system allows him to produce a variety of fruits, vegetables, and herbs in a compact, efficient manner.

Teams to reach out to scientists, organizations, professors, businesses of all different types to help with designing and implementing different solutions examples, Tom Chi-net positive mapping technology, Luther Krueger Solar Stoves, Kate Raworth Doughnut Economics 7 Ways to Think Like a 21st Century Economist, Janine Benyus Bio-mimicry expert, Jake Daily Bio-char expert local, Andrew Milison Oregon State University E-Campus Permaculture

35, G7

Opt out permits which allow you to build the way that you want to build

COB COTTAGE COMPANY

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What we do

We conduct hands-on research on natural building methods and materials, testing our own buildings by living in them.

Through our sharing of this knoweldge, we help empower ordinary people to build their own houses at moderate cost and help others become professionals in natural construction.

By mail and phone, and through publications and tours, we supply information, support and inspiration for people to make healthy choices about buildings.

Earthships - America's Off-Grid Desert Community

<https://youtu.be/wgUkjbMhF18?si=vMdverk7MTqqzDAG>

Here is a concise qualitative summary of the key points from the video:

The video explores the unique "earthship" homes designed by architect Mike Reynolds in New Mexico. Earthships are self-sustaining, off-grid structures made from recycled materials like tires, cans, and bottles. They are designed to harness heat, water, and food production, aiming to provide comfortable shelter while minimizing environmental impact.

The movement started when Reynolds recognized growing environmental issues and sought an alternative to conventional housing. He faced significant challenges from authorities who did not understand or approve of his unconventional building methods. However, Reynolds persisted and eventually secured legal recognition for his "sustainable testing sites."

The earthships demonstrate innovative techniques for temperature regulation, water harvesting, and food production, all powered by renewable energy. Residents like Judy and Alex describe the benefits of living in these self-sufficient homes, which allow them to control their environment and resources.

The video also highlights the earthship construction process, which involves the community coming together to build using recycled materials. Failures are seen as learning opportunities rather than setbacks. The earthship movement has expanded globally, providing sustainable housing solutions, especially in disaster-affected areas.

Overall, the video portrays the earthship as an inspiring example of how housing can be rethought to be more environmentally friendly, self-reliant, and community-oriented, challenging conventional norms.

45, G10-P3

The main ideas of 7 ways of thinking like an economist in the 21st century are:

1. Shift the goal from endless economic growth to "thriving within limits" - a balanced prosperity that meets everyone's basic needs without overshooting planetary boundaries.
2. Recognize the economy as a subsystem embedded within society and the living world, not a self-sustaining machine.
3. Adopt a richer view of human nature, emphasizing our social capacities for cooperation, care, and contribution over narrow self-interest.
4. Approach the economy as a complex, adaptive system that can be shaped but not fully controlled.
5. Design the economy to be distributive, not concentrating wealth and opportunity in few hands.
6. Transform the linear, extractive "take-make-waste" economy into a circular, regenerative one.
7. Overcome the structural dependence on endless growth that is built into our current economic systems.

Implementing these new ways of thinking requires redesigning the deep structures and incentives of our economic institutions. It calls for experimentation to learn how to put these ideas into practice.

59, G13-P1

Resilience is the ability to adapt to and cope with challenges, while health is a state of overall well-being:

Resilience

The ability to manage and adapt to challenges and stressors, and to return to a healthy state after an illness or trauma.

61, G13-P3

To strengthen your policy, consider adding specific guidelines, incentives, and enforcement mechanisms. Here's a revised version:

****Policy Statement:****

****Promote and Protect Northwest Native Plants in Landscaping****

1. ****Encouragement of Native Plant Use:****

- Implement incentives such as tax breaks, grants, or subsidies for homeowners and landscapers who choose Northwest native plants, especially in landscaping adjacent to critical areas.
- Provide educational resources and workshops on the benefits and maintenance of native plants.

2. ****Regulation of Invasive Species:****

- Develop a comprehensive list of invasive non-native plants that are prohibited in landscaping near critical areas.
- Establish penalties for the sale or planting of invasive species in designated zones, including fines or restoration requirements.

3. ****Support for Local Initiatives:****

- Partner with local organizations and conservation groups to promote community native planting events.

- Create a certification program for landscapers who specialize in native plant landscaping.

4. **Monitoring and Reporting:**

- Set up a system for monitoring the effectiveness of the policy, including tracking the number of native vs. invasive plants in critical areas.

- Encourage community reporting of invasive species and provide a clear process for addressing violations.

5. **Public Awareness Campaign:**

- Launch a public awareness campaign to educate the community about the ecological benefits of native plants and the dangers of invasive species.

This revised policy not only encourages the use of native plants but also establishes clear regulations, support mechanisms, and a framework for community involvement and accountability.

66, G15

To strengthen your policy for protecting, conserving, and recovering solenoids and all native aquatic species within Clark County, you can incorporate specific actions, stakeholder engagement, and monitoring mechanisms. Here's a revised version:

Policy Statement:

Protect, Conserve, and Recover Solenoids and Native Aquatic Species in Clark County

1. **Define Clear Objectives:**

- Establish specific, measurable goals for the protection and recovery of solenoids in native aquatic species, including population targets, habitat restoration milestones, and timelines for achieving these objectives.

2. **Habitat Protection and Restoration:**

- Identify and designate critical habitats for solenoids and their associated aquatic species, implementing protective measures against development and pollution.

- Develop and fund habitat restoration projects aimed at rehabilitating degraded aquatic ecosystems and enhancing natural habitats for native species.

3. **Research and Monitoring:**

- Conduct comprehensive research to understand the population dynamics, habitat needs, and threats to solenoids and native aquatic species.
- Implement a robust monitoring program to track the health and population status of these species over time, using citizen science initiatives to engage the community in data collection.

4. **Regulation and Enforcement:**

- Strengthen existing regulations to protect aquatic habitats from harmful practices, including overfishing, pollution, and habitat destruction.
- Establish penalties for violations of conservation laws related to solenoids and native aquatic species.

5. **Community Engagement and Education:**

- Launch educational programs to raise awareness about the importance of solenoids and native aquatic species, targeting schools, local organizations, and community groups.
- Encourage community involvement in conservation efforts through volunteer opportunities, citizen science projects, and awareness campaigns.

6. **Partnerships and Collaboration:**

- Collaborate with local governments, environmental organizations, universities, and Indigenous communities to leverage resources and expertise in conservation efforts.
- Establish a stakeholder advisory group to provide input and guidance on policy development and implementation.

7. **Funding and Resource Allocation:**

- Identify and secure funding sources for conservation projects, research, and community education initiatives, including grants, partnerships, and local government support.
- Allocate resources effectively to ensure the successful implementation of recovery strategies and conservation programs.

8. **Regular Review and Adaptation:**

- Establish a process for regular review and adaptation of the policy based on new research findings, monitoring results, and community feedback.
- Ensure transparency in reporting progress to the community and stakeholders, fostering trust and ongoing support for conservation efforts.

This enhanced policy not only emphasizes the protection and recovery of solenoids in native aquatic species but also creates a comprehensive framework for action, collaboration, and community involvement.

69, G16-P1

The Chala System:

- The chala system was developed as a unique method for infiltrating stormwater runoff in the flat terrain of the region.
- It involves excavating a series of pits or compartments and using the excavated soil to build up bunds (embankments) around them.
- These compartments are then flooded by stormwater runoff during the monsoon season.
- The water is held back by the bunds and allowed to fully infiltrate into the ground, recharging the aquifer.
- Once the water soaks in, it leaves the soil surface moist in a patterned way, allowing grasses to grow abundantly for grazing animals.
- Each compartment overflows into the next, and the entire chala system eventually overflows into a larger water body.
- This chala system has been critical in enhancing groundwater recharge and water availability in the otherwise arid region.

71, G16-P3

"advocating for non-toxic pesticides and fertilizers while prohibiting harmful alternatives." This wording emphasizes the promotion of safe options while clearly stating the intention to ban toxic substances.

"strengthening our policy to prohibit the use of Sledge or animal waste materials in sensitive areas, including aquifers, recharge zones, and service water bodies, in strict adherence to state law, to safeguard and promote a healthy environment."

There are several alternative methods to control stream bank erosion besides biological engineering:

1. **Structural Solutions**:

- **Riprap**: Placing large stones along the bank to absorb wave energy.
- **Retaining walls**: Building walls to support the bank and prevent erosion.
- **Gabions**: Wire mesh baskets filled with rocks that stabilize the bank.

2. **Vegetative Solutions**:

- **Native vegetation planting**: Introducing deep-rooted plants that can help hold the soil in place.
- **Buffer strips**: Developing vegetated areas along the bank to filter runoff and stabilize soil.

3. **Hydraulic Solutions**:

- **Channel modification**: Altering the stream's flow path to reduce velocity and erosion potential.
- **Flow control structures**: Using weirs or check dams to slow down water flow and reduce erosive forces.

4. **Soil Stabilization**:

- **Geotextiles**: Using synthetic fabrics that can help stabilize the soil and prevent erosion.
- **Soil amendments**: Adding materials like polymers to improve soil structure and stability.

5. **Drainage Improvements**:

- **Redirecting surface runoff**: Implementing drainage systems to manage water flow and reduce pressure on stream banks.

Each method has its own advantages and may be more suitable depending on the specific conditions of the site. A combination of approaches is often the most effective for controlling stream bank erosion.

73, G17

"Establish a robust stormwater management program dedicated to safeguarding the county's waters by implementing comprehensive strategies that effectively minimize the detrimental impacts of stormwater runoff. This policy will prioritize sustainable practices, enforce strict regulations, and promote community engagement to ensure the health of our environment and the well-being of our community."

74, G17-P1

"Implement a comprehensive policy to identify and prioritize retrofit areas that significantly enhance stormwater infiltration and mitigate localized flooding. This initiative will focus on integrating advanced green infrastructure, promoting community involvement, and employing data-driven assessments to ensure effective solutions are in place, thereby safeguarding the health and well-being of both our community and the planet."

75, G17-P2

"Establish a robust stormwater management program that minimizes impacts to the county's waters through comprehensive basin planning, promotion of on-site infiltration, and low-impact development, ensuring the health and well-being of our community and the planet in both developed and urbanizing areas."

76, G18

"Enhance public awareness of environmental issues by promoting education on native plant varieties, benefits and care; ecosystem functions, conservation, and sustainable practices, fostering a deeper understanding of humanity's relationship with nature and empowering individuals to reduce their carbon footprint for the health and well-being of the community and the planet."

78, G19

"Equitably reduce vehicle trips and miles within the county by transforming land use and enhancing transportation infrastructure, including transit, walking, biking, and rolling options, to promote sustainable commuting models that protect the health and well-being of the community and the planet."

79, G19-P1

****Suggestions for Addition:****

- Introduce incentives for using public transport or alternative commuting methods.
- Implement carpooling programs to further decrease vehicle dependency.
- Develop safe and accessible pathways for non-motorized transport.

82, G19-P4

While "plan" refers to the process of carefully thinking out and outlining a course of action to achieve a goal, "create" means to bring something new into existence, often involving building or designing something from scratch; essentially, "plan" is about strategizing the steps to reach a desired outcome, while "create" is about actively making something new happen.

Can

Used to express capability or possibility, or to ask permission.

Will

Used to express willingness, certainty, or commitment, or to make predictions or promises.
