From: Jeffrey Delapena
To: Cnty 2025 Comp Plan; engert23@gmail.com
Cc: Jenna Kay; Jose Alvarez; Oliver Orjiako
Subject: RE: Comprehensive Plan Update Comments
Date: Monday, January 27, 2025 7:33:38 AM

Hello Tonya,

Thank you for submitting these further comments for consideration in Phase 2 of the Climate Project Timeline.

I have also forwarded these to members of Staff and they will be entered into the Comprehensive Index of Record.

Regards,
Jeff Delapena
Program Assistant, Clark County Community Planning

From: Clark County <webteam@clark.wa.gov>
Sent: Friday, January 24, 2025 10:33 PM
To: Cnty 2025 Comp Plan <comp.plan@clark.wa.gov>
Subject: Comprehensive Plan Update Comments

Submitted on Fri, 01/24/2025 - 10:32 PM

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Message Subject
Comments on Phase 2 Climate plan

Comments
Please include goals that address biodiversity and carbon sequestration - which are intertwined issues. Addressing climate change in Clark County needs to address the quality of ecosystems as an adaptive response to climate change - where merely "planting trees" is mentioned in several goals, this is not the same as promoting ecosystem health for climate resiliency.
In a 2021 article published in Urban Sustainability titled "Cities should respond to biodiversity extinction crisis" the authors give guidelines towards implementing biodiversity increasing objectives towards climate response:
Promote novel ecosystems as climate solutions in cities
"Cities can be hostile environments for native vegetation because urban environments are typically highly modified. Climate change amplifies many of these effects, and adds to the planning complexity, since biodiversity conservation objectives may be undermined by, or conflict with, objectives such as cooling and shading13. We propose a shift from relying on historic models for restoring ecosystems, towards applying nature conservation goals to novel ecosystems that are adaptive to climate change14. For this, we need to create mechanisms and communicate ecological designs that adjust and reconceptualise urban nature for evolving climates. An example from Melbourne Australia is the addition of native mistletoes (that provide habitat for insects and birds) to exotic trees that provide shading and cooling15."

In the Global Platform for Sustainable Cities policy brief from 2021, they give guidelines towards supporting the aims of promoting biodiversity and climate resiliency.
https://www.thegpsc.org/sites/gpsc/files/final_urban_nature_and_biodiversity_for_cities.pdf

"Urban biodiversity is the variety and abundance of life in a city (Puppim de Oliveira et al. 2014). Urban nature refers to all life in a city, including expansive and relatively wild green and blue spaces, as well as gardens, green roofs, street trees, birds, and butterflies (Turini and Knop 2015). Different elements of urban nature can be home to different types and amounts of biodiversity.
1.2. Why do urban biodiversity and urban

nature matter to people?
Natural features (e.g., mountains, rivers, lakes, coastlines, forests, wetlands, trees, birds, and bees) help create a unique, thriving region that draws and retains residents and visitors alike (World Bank 2019). Urban biodiversity and urban nature influence the well-being of citydwellers and the livability of cities via multiple pathways

Urban green spaces can increase the livability of cities by alleviating the urban heat island effect by 2°C during the day and up to 12°C at night (Zhang et al. 2017; Raj et al. 2020). Vegetated areas included with pavement and rooftops allow water to penetrate into the ground, reducing flooding and downstream pollution and increasing the recharge of precious groundwater (Ishimatsu et al. 2017; Chan et al. 2018; Zhang et al. 2020). Coral reefs, mangroves, seagrass beds, and beaches protect coastal cities from erosion and flooding (Kuehler, Hathaway, and Tirpak 2017). Urban nature can also help mitigate climate change by storing and sequestering carbon. For example, urban forests across the US state of California were found to store 2 percent of the total carbon of California forests and sequester 12 percent of the total annual carbon sequestered by forests in California (McPherson et al. 2013).

1.3. How do biodiversity and nature outside the city impact the quality of life in the city?

Nature and biodiversity in peri-urban and rural areas also provide crucial benefits to urban residents. Conversely, unchecked urban sprawl into outlying areas can impact the residents of the city center in a multitude of ways. Cities can help maintain biodiversity by serving as key nodes between connected ecosystems in the landscape's surrounding cities (The Nature Conservancy 2018). Cities rely on resources coming from outside of their city borders, with nearby agricultural lands providing food, timber, fuel, and fiber (Folke et al. 1997; Rainham, Cantwell, and Jason 2013).

"Investments may include protection of native vegetation, restoration of degraded lands, improved agricultural practices, and shifting of some farmers into other livelihoods, through training and other support. The investments target the twofold goal of improving upstream livelihoods and

downstream water security. Investments are targeted across landscapes to yield the highest return, subject to stakeholder preferences.. "

"Climate change mitigation: Both marine and terrestrial ecosystems sequester carbon from the atmosphere, helping to regulate Earth’s climate. The InVEST Carbon Storage and Sequestration model uses spatial land use data and integrates four different carbon pools (above-ground biomass, below-ground biomass, soil, and dead organic matter) to estimate the total amount of carbon stored in a landscape or sequestered over time. Additional data on the market or social value of sequestered carbon, its annual rate of change, and a discount rate can be used to estimate the monetary value of this ecosystem service to society. This model can be used anywhere along the urban-to-rural gradient, from the most densely populated urban core to undeveloped hinterlands."