

City of Medical Lake  
124 S. Lefevre Street – City Council Chambers  
**Planning Commission Meeting**  
**January 25, 2024, Minutes**

**NOTE: This is not a verbatim transcript. Minutes contain only a summary of the discussion. A recording of the meeting is on file and available from City Hall.**

**1) CALL TO ORDER, PLEDGE OF ALLEGIANCE, AND ROLL CALL**

- a) Commissioner Hudson called the meeting to order at 5:30 pm, led the Pledge of Allegiance, and conducted roll call. Commissioner Munson was present on Zoom and all other commissioners were present in person.
- b) Commissioner Mark will be on vacation during the February meeting. Will submit an absence form.

**2) ADDITIONS TO AGENDA**

- a) Motion to approve made by commissioner Mark, seconded by commissioner Mayulianos, carried 5-0.

**3) APPROVAL OF MINUTES**

- a) December 14, 2023, Minutes
  - i) Motion to approve made by commissioner Mark, seconded by commissioner Munson, carried 5-0.

**4) INTERESTED CITIZENS: AUDIENCE REQUESTS AND COMMENTS**

- a) Tammy Roberson, resident of Medical Lake – gave an educational presentation on wetlands. See attached.
  - i) Commissioner Hudson - Dr. Dasher from EWU gave a presentation last year that man-made wetlands are 90-95% as effective as natural. This might be something worth looking into further. Possibly an interactive one for students. Could be a good opportunity to partner with the city.

**5) STAFF REPORTS**

- a) none

**6) SCHEDULED ITEMS**

- a) Comprehensive Plan Overview – Intro to GMA
  - i) City Planner, Elisa Rodriguez, gave a presentation. See attached.
- b) City Branding Discussion
  - i) Commissioner Munson reviewed previous conversations regarding the topic of city branding. Feels that capitalizing on proximity to Fairchild is a good idea.
  - ii) Commissioner Mayulianos shared about a book called “Fairchild” that has a history of Fairchild AFB. She is waiting for a call back from FAFB Public Affairs regarding the museum. The Medical Lake library seemed interested in working with us.
  - iii) Commissioner Hudson asked what’s next in the process. Commissioner Munson suggested that the Commission focus on current responsibilities and consider the attachment he provided from October 17, 2023. Commissioner Hudson suggested providing a one-page report that could be distributed to the community to inform them of what the Planning Commission is considering regarding branding. Commissioner Munson will prepare a one-page summary and send it to commissioners for input.

- iv) Commissioner Mark shared some ideas about providing athletic events such as triathlons, Wonder Woman Race, and kayak races.
  - c) Education Packet for New Commission Members
    - i) Commissioner Mayulianos – requested to table to the next meeting to finalize the history information from Fairchild. She hopes to provide the final draft at the February meeting and then go to a vote at the March or April meeting.
    - ii) Commissioner Mark inquired about how many pages will be in the final product. It is already over one hundred pages, and she feels like that is too much and could be daunting for new members. Discussion held. Other commissioners believe that it is better to have too much information rather than not enough. New commissioners can pick and choose what to read at their discretion.
  - d) Motion to table to the next meeting made by commissioner Hudson, seconded by commissioner Mark, carried 5-0.
- 7) **PUBLIC HEARING** – None scheduled.
- 8) **COMMISSION MEMBERS' COMMENTS OR CONCERNS**
- a) Several members complained about the noise from the Young Life meeting going on in the auditorium during the meeting. Mrs. Rodriguez will speak with Mayor Cooper about possibly moving them to a different night or location during Planning Commission meetings.
  - b) Commissioner Mayulianos asked Mrs. Rodriguez if all the trees that had been removed from Waterfront Park were fire damaged. Yes, they were all damaged by the fire. Commissioner Hudson asked for an update on the status of the shipping container ordinance. Mrs. Rodriguez shared that it is on hold until April.
- 9) **INTERESTED CITIZENS: AUDIENCE REQUESTS AND COMMENTS**
- a) Diane Nichols, resident of Medical Lake – spoke on branding discussion. Suggested looking at Walla Walla, since it was completely rebranded and is now thriving. Likes military history connection and suggested also looking at Native American history and the city's natural resources. Discussed park development.
- 10) **CONCLUSION**
- a) Motion to conclude meeting at 6:53 made by commissioner Mayulianos, seconded by commissioner Munson, carried 5-0.

*Roxanne Wright* April 9, 2024  
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Roxanne Wright, Administrative Assistant

**2024 World Wetlands Day (WWD) “SHORT” Crash Course 101**  
**Comments (Educational Presentation)**  
**Planning Commission Meeting 25 Jan 2024**  
(As of: 25 Jan 2024)

**“Wetlands and Human Wellbeing”**

**We must act now. Together. Take action to support wetlands every day.**

**“Fighting Wildfires Is Pricy. Protecting Our Wetlands Is Priceless.”**

***WETLANDS. NATURE’S GREATEST RESOURCE.***  
***WETLANDS AND PEOPLE. WE NEED EACH OTHER.***  
***EVERY WETLAND MATTERS. EVERY EFFORT COUNTS.***



Good evening, Planning Commissioners and City Officials.

Do you know that “Wetlands and people -- we need each other”?

Do you know **“Fighting Wildfires Is Pricy. and Protecting Our Wetlands Is Priceless.”?**

This is an educational presentation about World Wetlands Day and this year’s theme is “Wetlands and Human Wellbeing.”

To help celebrate World Wetlands Day this year, I will be donating 7 or so “Wetlands Plants and Animals” coloring books to the ML Library. These are available on Amazon.

My presentation will be given in a “Do you know” format for the main topics; therefore, just include this question silently prior to each of my supporting facts -- this is only to save some time.

❖ **Do you know that every year on February 2<sup>nd</sup>, World Wetlands Day (WWD) joins folks around the globe in celebrating the value and beauty of our planet’s wetlands?**

- It calls nations and each of us to act on behalf of these highly productive natural environments whose existence is interlaced with our own.
- The UN Decade on Ecosystem Restoration is a call for the protection and revival of ecosystems around the world. It runs from 2021 to 2030.

❖ **Do you know humans are destroying wetlands – the Earth’s most threatened and most vulnerable ecosystem?**

- Wetlands are nature’s shock absorbers.
- Wetlands are a major, planet-wide habitat that makes life on Earth possible – essential for human life.
- From filtering water, to supporting biodiversity, to mitigating climate change, to protecting against extreme weather events (storms, droughts, wildfires, etc.), these ecosystems provide vital services that sustain our wellbeing.
- 80% of waste water is discharged into the natural environment without any form of treatment.
- Abundant plant life in wetlands absorbs waste, which helps purify the water.
- Wetlands silt-rich soil and plants naturally filter and store water.
- Wetlands are known as the Earth’s kidneys.
- Wetlands provide almost all our freshwater.

❖ **Do you know the 2024 WWD Campaign’s overriding message is?**

- Human wellbeing is forever tied to the state of the world’s wetlands.
- We are dependent on these life-sustaining ecosystems.
- Wetlands must be healthy if they are to continue to provide us with water and food, support biodiversity, provide livelihoods, protect against extreme weather events, and mitigate against climate change.

❖ **Do you know the WWD Campaign’s key takeaway?**

- **Prioritize the protection and restoration of wetlands.**
- **Remove the stressors and pressures on wetlands.**

- **Prevents further loss and degradation.**
- **Equates to best practice.**

❖ **Do you know the potential restoration of wetlands IS NOT ...?**

- A substitute for protecting and ensuring the **wise use** of wetlands.
- A justification or a suitable tradeoff for the continued degradation of wetlands.

**Interesting Tidbits:**

❖ **Do you know human wellbeing and the health of the planet is at stake?**

- Triple planetary crisis of climate change, nature loss and pollution are harming human health.
- Human activities and climate change are driving degradation.
- As cities grow and the demand for land increases, development encroaches on wetlands.

❖ **Do you know one can find wetland events taking place all over the globe on the official website of World Wetlands Day ([www.worldwetlandsday.org](http://www.worldwetlandsday.org) under events)? Even Medical Lake is listed!**

- Wetland info is continually being posted on social media since 8 Jan 2024 to help the residents understand how human wellbeing is forever tied to the state of the world's wetlands (which also includes the many wetlands located within the City of Medical Lake).
- These postings educate everyone (to include City Officials) about how wetlands are a natural defense against wildfires (City's south and southeast portions where many wetlands used to exist took a major hit from the Gray Fire in Aug 2023), recognize how wetlands play a vital role in reducing extreme temperatures and droughts (which will also aid in preventing future wildfires), and finally, how wetlands are our guardians (super-power ecosystems) against climate change. These are just some of the topics that have been relayed via social media.
- I am praying that the City of Medical Lake will make wiser choices to minimize the loss and degradation of wetlands and will also be able to recognize human activities that threaten them (i.e., encroachment by development, buffer averaging, and incomplete/inaccurate wetland reports, etc.) -- to ensure their sustainable use by managing wetlands wisely.
- I am hoping that the City of Medical Lake understands that ecosystem-based solutions should complement other risk management measures such as early warning, evacuation, and contingency planning. (taken from Ramsar Policy Brief 1 Wetlands for disaster risk reduction: Effective choices for resilient communities)
- I am also praying that the general public (even Planning Commissioners/City Council/City Officials) will gradually understand how vital our wetlands are to humanity and will eventually step up to become their voice against human activity which threatens our City's wetlands.

- We need many “super-heroes” wetland champions and advocates to stand up for these biodiverse superpower ecosystems and stop their loss and degradation caused by humans before it becomes too late.

❖ **Do you know -- We must act now. Together. Take action to support wetlands every day?**

- Education yourself and others about how wetlands and human wellbeing are interconnected.
- Understand the value, significance, and contributions of the world’s wetlands and recognize human activities that threaten them.
- Raise wetland awareness and capacity in development planning to promote nature-based approaches.
- Inspire the public to take action for healthy wetlands.
- Create an advocacy effort that encourages local, state, and national governments to prioritize wetlands as part of their sustainable development and climate action efforts.
- Join the global effort to care, nurture and support the world’s wetlands for the wellbeing of present and future generations.

I will be only covering five major wetland questions/topics for this presentation. For many more topics, facts, corresponding solutions, the issue, and an executive summary refer to the longer version handout (12 pages).

1) **Do you know wetlands play a vital role in retaining water on the landscape, in maintaining local climate (microclimates) and water cycles, and in reducing extreme temperatures?**

(Taken from Ramsar Policy Brief #1: “Wetlands for disaster risk reduction: Effective choices for resilient communities”; Ramsar Briefing Note #10: “Wetland Restoration for Climate Change Resilience”; and [www.worldwetlandsday.org](http://www.worldwetlandsday.org))

- Stores water from precipitation and slowly releases it to the surrounding environment, which can also recharge groundwater aquifers and maintain atmospheric water cycles.
- Evaporation and the transpiration of water from vegetation have a local cooling effect.
- Draining wetlands reduces local water storage and can lead to increases in local daytime temperatures.

2) **Do you know wetlands are a natural defense against wildfires?**

(Taken from “Wetlands – natural defense against wildfires” by Cathy Vaughan, 23 Oct 2023 and “Low-Tech Restoration Improves Forest Resilience” dated 20 Feb 2023 by Forest Service Employees for Environmental Ethics (FSEEE))

- **“Fighting wildfires is pricy. Protecting our wetlands is priceless.”**

- “When wetlands are healthy, they are natural sponges and soak up a huge amount of water. A wetland can act as a natural fire break and reduce the intensity of a wildfire.”
- Moisture-laden wetlands help prevent fires and can act as natural barriers to the spread of forest fires.
- Wet soggy soil does not burn so well.
- Besides helping to prevent or slow down the spread of fires, “Wetlands can reduce the severity of flooding and drought, holding excess water during wet periods and slowing releasing it during dry periods. They also store carbon and provide essential habitat for migratory and threatened species.”

**NOTE:** As everyone knows, on Medical Lake’s south/south east sides, there use to be a lot more wetlands before the Silver Hills development came through. In fact, wetland critters (i.e., snakes, frogs, etc.) were initially found inside the elementary school building since it is so very close to the wetland. These poor critters were only trying to go back to their homes (habitat)... If one does not believe this, just talk with some of these teachers, volunteers, staff, etc. I wonder if the parents at that time knew about this? Interesting to ponder on...

3) **Do you know wetlands are our natural guardians (“super power ecosystems”) against climate change?**

(Taken from Ramsar Briefing Note #10 “*Wetland Restoration for Climate Change Resilience*”; Ramsar Policy Brief #1 “*Wetlands for disaster risk reduction: Effective choices for resilient communities*”; Ramsar Convention on Wetlands “*Wetlands restoration: unlocking the untapped potential of the Earth’s most valuable ecosystem*”) and [www.worldwetlandday.org](http://www.worldwetlandday.org) (Wetlands and Climate (Infographics)/MS PowerPoint (PP) presentation))

- The earth’s climate is changing at an unprecedented rate.
- As extreme weather events such as storms, flooding, droughts and heat waves increase in frequency, wetland protection and restoration increases climate resilience by buffering communities from coastal storm surges, reducing wave damage and floods, and stabilizing shorelines, water supplies and local microclimates.
- The protection and restoration of wetlands is a key component of the measures needed to mitigate climate change and reduce disaster risks.
- Disasters and the associated fatalities, losses, and damage often result from poor decisions and actions that make hazards more severe and communities more vulnerable to their impacts.
- Studies have shown that it is often more cost-effective to invest in the conservation of these ecosystems than in constructing hard infrastructures to enable resilience.
- The value of wetlands in countering disasters is seldom understood, and they are too rarely considered in disaster risk reduction (DRR) policies.

- Wetlands are natural water infrastructures, which can help to mitigate the physical impacts of hazards – climate change is increasing (at an unprecedented rate) the frequency of these extreme weather events causing droughts, floods, and storm surges.
  - An acre of wetland can store up to 1.5 million gallons of floodwater.
  - Wetlands capture CO<sub>2</sub> from the atmosphere and store more carbon than any other ecosystem on earth – high-carbon ecosystems.
  - Wetland soils contain a disproportionate share of the earth's total carbon – their soils hold 35% or more of the estimated 1,500 gigatons of organic carbon that is stored in soils
  - When wetlands are drained, deforested, dredged, or converted for agriculture, the carbon stored in the soils is released as CO<sub>2</sub>.
  - Wetlands only occupy between 5% and 8% of the earth's total land surface.
  - Over the long term, inland wetlands have declined more rapidly (averaging 61% loss) than coastal wetlands (46% lost).

4) **Do you know wetlands provide resilience to natural hazards?**

(Taken from "Wetlands and resilience to natural hazards" and Ramsar Policy Brief 1 "Wetlands for disaster risk reduction: Effective choices for resilient communities")

- Well-managed ecosystems can reduce the impact of many natural hazards, such as fire, flooding, droughts, landslides, and storm surges.
- The extent to which an ecosystem can buffer against extreme events depends on the ecosystem's health and the intensity of the event.
- Fire – wetlands can act as a natural barrier to the spread of fires, regulating the frequency and magnitude of the fire events.
- Droughts – healthy and well-functioning ecosystems can provide a degree of protection from extreme weather events. Wetlands can store water which provides a buffer against droughts.
- Erosion and landslides – Maintaining and restoring catchment, riparian and in-stream vegetation can stabilize soil, reduce runoff during storms and slow flood waters, reducing the risk of erosion to catchments and streambanks.

5) **Do you know wetlands provide a connection to nature that contributes to improved mental health and wellbeing?**

(Taken from [www.worldwetlandsday.org](http://www.worldwetlandsday.org) (Wetlands and Culture (Infographics)/MS PP Presentation))

- Wetland landscapes positively impact mental wellbeing research shows.
- The connection to nature that wetlands provide promotes mindfulness and a sense of emotional balance, contributing to improved mental health.
- Wetlands have inspired humankind's creative and spiritual minds from the earliest times and have contributed to the artistic heritage of perhaps all cultures around the world.



- Healthy wetlands advance human health which depends on well-functioning wetlands.
  - The scenes and associations of wetlands have contributed to the artistic heritage of perhaps all cultures around the world – from local and national to classical Western tradition.
- ❖ A variety of slogans (such as “Wetlands. Nature’s Greatest Resource.” and “Wetlands and People. We Need Each Other.” and “Every Wetland Matters. Every Effort Counts.”) will be marketed throughout the years to remind all of the vital importance to keep our City’s own wetlands healthy.

### **Friendly Reminders:**

- 1) Do you remember Ecology has only regulatory authority over the “waters of the state” – the wetland waters?
- 2) Most importantly, do you remember the City is in control of the buffer which is supposedly there to protect the wetlands?

One final question: **Do you want to leave a legacy of total degradation of Medical Lake wetlands on your watch?** Just something to ponder on...

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**EVERY WETLAND MATTERS. EVERY EFFORT COUNTS.**

**“Fighting Wildfires Is Pricy. Protecting Our Wetlands Is Priceless.”**

Thank you for taking your valuable time to properly digest this life-threatening topic.

May God’s grace and protection be with the City’s wetlands and humanity.



Tammy M. Roberson, MBA  
SMSgt USAF Retired  
Disabled Veteran (100% service connected)  
Concerned ML Resident/Wetland Owner  
Wetland Champion/Advocate & Voice

**Comments from Planning Commissioners after presentation:**

- 1) Chair stated something about checking with Dr Dascher (from EWU) about humans possibly creating wetlands (supposedly 90-95% effective) here in ML.**
- 2) Maybe include having some interactive wetlands via monitors for students of all grades to include college level.**
- 3) Include bird watching along with these interactive wetlands.**

**I did remind the Commissioners that our current wetlands must be protected and no more degradation of wetlands from development (buffer encroachment, etc).**

# World Wetlands Day (WWD) Crash Course 101

List of Online References Used (Attachment #1)

**Planning Commission-- 25 Jan 2024**

(As of: 25 Jan 2024)

## **“Wetlands and Human Wellbeing”**

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The following online references were used in developing both the long and short versions of the World Wetlands Day Crash Course 101 for Medical Lake’s Planning Commissioners/City Planner:

- 1) [www.worldwetlandsday.org](http://www.worldwetlandsday.org) (under Communication Resources/World Wetlands Day 2024 Materials)
- 2) [www.ramsar.org](http://www.ramsar.org)
  - Ramsar Policy Brief #1: *“Wetlands for disaster risk reduction: Effective choices for resilient communities”*
  - Ramsar Briefing Note #10: *“Wetland Restoration for Climate Change Resilience.”*

- Ramsar Policy Brief #12: *"Integrating multiple wetland values into decision-makings."*
  - Ramsar Convention on Wetlands *"Wetlands restoration: unlocking the untapped potential of the Earth's most valuable ecosystem."*
  - Ramsar Convention on Wetlands *"Gender Equality and the Sustainability of the World's Wetlands"*
- 3) *"Wetlands – natural defense against wildfires"* by Cathy Vaughan, 23 Oct 2023
  - 4) *"Low-Tech Restoration Improves Forest Resilience"* dated 20 Feb 2023 by Forest Service Employees for Environmental Ethics (FSEEE)
  - 5) *"Wetlands and resilience to natural hazards"* (2016)
  - 6) *"How to fight wildfires and climate change with wetlands"*

May God's grace and protection always be with the City's wetlands and humanity.



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SMSgt USAF Retired  
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**EVERY WETLAND MATTERS. EVERY EFFORT COUNTS.**

**"Fighting Wildfires Is Pricy. Protecting Our Wetlands Is Priceless."**

# 2024 World Wetlands Day (WWD) Crash Course 101

(Long Version)

Planning Commission Meeting 25 Jan 2024

(As of: 25 Jan 2024)

## “Wetlands and Human Wellbeing”

**We must act now. Together. Take action to support wetlands every day.**

**“Fighting Wildfires Is Pricy. Protecting Our Wetlands Is Priceless.”**

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EVERY WETLAND MATTERS. EVERY EFFORT COUNTS.***



Good evening, Planning Commissioners and City Officials.

❖ **Do you know that every year on February 2<sup>nd</sup>, World Wetlands Day (WWD) joins folks around the globe in celebrating the value and beauty of our planet’s wetlands?**

- It calls nations and each of us to act on behalf of these highly productive natural environments whose existence is interlaced with our own.
- The UN Decade on Ecosystem Restoration is a call for the protection and revival of ecosystems around the world. It runs from 2021 to 2030.

❖ **Do you know WWD has a long, meaningful history?**

- On 2 Feb 1971, the Convention on Wetlands (Ramsar, Iran) was adopted as an international treaty.
- It was the first of the modern global multilateral environmental agreements.
- Remains the only one devoted to a specific ecosystem – wetlands.
- WWD enjoys United Nations support since 2022.

❖ **Do you know “Wetlands and Human Wellbeing” is the 2024 WWD theme?**

- Spotlights how all aspects of human wellbeing are tied to the health of the world’s wetlands --- physical, mental, and environmental.
- Clearly explains how interconnected wetlands and human life have been throughout history --- with people drawing sustenance, inspiration, and resilience from these productive ecosystems.
- Underscores the critical need for human stewardship of the world’s wetlands.

❖ **Do you know WWD is a global awareness campaign that gives voice to wetlands everywhere?**

- **Every Wetland Matters. Every Effort Counts.**
- Increases global understanding of how much wetlands do for humanity and that we must care, nurture, and support them for a sustainable future.
- Underscores how all aspects of human wellbeing are tied to the health of the world’s wetlands.
- It calls on each of us to value and steward our wetlands.

❖ **Do you know the 2024 WWD Campaign’s overriding message is?**

- Human wellbeing is irrevocably tied to the state of the world’s wetlands.
- We are dependent on these life-sustaining ecosystems.
- Wetlands must be healthy if they are to continue to provide us with water and food, support biodiversity, provide livelihoods, protect against extreme weather events, and mitigate against climate change.

❖ **Do you know the WWD Campaign’s key takeaway is?**

- **Prioritize the protection and restoration of wetlands.**
- **Remove the stressors and pressures on wetlands.**
- **Prevents further loss and degradation.**
- **Equates to best practice.**

❖ **Do you know the potential restoration of wetlands IS NOT (the following)?**

- A substitute for protecting and ensuring the **wise use** of wetlands.
- A justification or a suitable tradeoff for the continued degradation of wetlands.

**Interesting Tidbits:**

❖ **Do you know human wellbeing and the health of the planet is at stake?**

- Triple planetary crisis of climate change, nature loss and pollution are harming human health.
- Human activities and climate change are driving degradation.
- As cities grow and the demand for land increases, development encroaches on wetlands.

❖ **Do you know the poster for 2024 World Wetlands Day includes an illustration of a lone hummingbird?**

- These fascinating creatures are found only in the Western Hemisphere and wetlands are critical to their survival.
- Many are endemic to specific wetlands.

❖ **Do you know one can find wetland events taking place all over the globe on the official website of World Wetlands Day ([www.worldwetlandsday.org](http://www.worldwetlandsday.org) under events)? Even Medical Lake is listed!**

- Wetland info is continually being posted on social media since 8 Jan 2024 to help the residents understand how human wellbeing is irrevocably tied to the state of the world's wetlands (which also includes the many wetlands located within the City of Medical Lake).
- These postings educate everyone (to include City Officials) about how wetlands are a natural defense against wildfires (City's south and southeast portions where many wetlands used to exist took a major hit from the Gray Fire in Aug 2023), recognize how wetlands play a vital role in reducing extreme temperatures and droughts (which will also aid in preventing future wildfires), and finally, how wetlands are our guardians (super-power ecosystems) against climate change. These are just some of the topics that have been relayed via social media.
- I am praying that the City of Medical Lake will make wiser choices to minimize the loss and degradation of wetlands and will also be able to recognize human activities that threaten them (i.e., encroachment by development, buffer averaging, and incomplete/inaccurate wetland reports, etc.) -- to ensure their sustainable use by managing wetlands wisely.
- I am hoping that the City of Medical Lake understands that ecosystem-based solutions should complement other risk management measures such as early warning, evacuation, and contingency planning. (taken from Ramsar Policy Brief 1 Wetlands for disaster risk reduction: Effective choices for resilient communities)

- I am also praying that the general public (even Planning Commissioners/City Council/City Officials) will gradually understand how vital our wetlands are to humanity and will eventually step up to become their voice against human activity which threatens our City's wetlands.
- We need many "super-heroes" wetland champions and advocates to stand up for these biodiverse superpower ecosystems and stop their loss and degradation caused by humans before it becomes too late.
- Slogans such as "**Wetlands. Nature's Greatest Resource.**" and "**Wetlands and People. We Need Each Other.**" and "**Every Wetland Matters. Every Effort Counts.**" will be marketed throughout the years to remind all of the vital importance to keep our City's own wetlands healthy.

**Friendly Reminders:** Do you remember Ecology only has regulatory authority over the "waters of the state" – the wetland waters? Do you remember the City is in control of the buffer (i.e., encroachment) which is supposedly there to protect the wetlands?

❖ **Do you know -- We must act now. Together. Take action to support wetlands every day?**

- Education yourself and others about how wetlands and human wellbeing are interconnected.
- Understand the value, significance, and contributions of the world's wetlands and recognize human activities that threaten them.
- Raise wetland awareness and capacity in development planning to promote nature-based approaches.
- Inspire the public to take action for healthy wetlands.
- Create an advocacy effort that encourages local, state, and national governments to prioritize wetlands as part of their sustainable development and climate action efforts.
- Join the global effort to care, nurture and support the world's wetlands for the wellbeing of present and future generations.

**NOTE:** Please see Attachment #1 for a list of online references used in this WWD Crash Course 101.

❖ **Do you know humans are destroying wetlands – the Earth's most threatened and most vulnerable ecosystem?**

- Wetlands are nature's shock absorbers.
- Wetlands are a major, planet-wide habitat that makes life on Earth possible – essential for human life.
- From filtering water, to supporting biodiversity, to mitigating climate change, to protecting against extreme weather events (storms, droughts, wildfires, etc.), these ecosystems provide vital services that sustain our wellbeing.



- 80% of waste water is discharged into the natural environment without any form of treatment.
- Abundant plant life in wetlands absorbs waste, which helps purify the water.
- Wetlands silt-rich soil and plants naturally filter and store water.
- Wetlands are known as the Earth's kidneys.
- Wetlands provide almost all our freshwater.

❖ **Do you know wetlands play a vital role in retaining water on the landscape, in maintaining local climate (microclimates) and water cycles, and in reducing extreme temperatures?**

- Stores water from precipitation and slowly releases it to the surrounding environment, which can also recharge groundwater aquifers and maintain atmospheric water cycles.
- Evaporation and the transpiration of water from vegetation have a local cooling effect.
- Draining wetlands reduces local water storage and can lead to increases in local daytime temperatures.

**Solution:** Meeting the climate challenge requires ambitious wetland conservation and restoration across society.

❖ **Do you know wetlands are a natural defense against wildfires?**

- **"Fighting Wildfires Is Pricy. Protecting Our Wetlands Is Priceless."**
- "When wetlands are healthy, they are natural sponges and soak up a huge amount of water. A wetland can act as a natural fire break and reduce the intensity of a wildfire."
- Moisture-laden wetlands help prevent fires and can act as natural barriers to the spread of forest fires.
- Wet soggy soil does not burn so well.
- Besides helping to prevent or slow down the spread of fires, "Wetlands can reduce the severity of flooding and drought, holding excess water during wet periods and slowing releasing it during dry periods. They also store carbon and provide essential habitat for migratory and threatened species."
- A recently published report concludes that restoring headwaters streams and wetlands enhances wildfire and drought resilience. ("*Low-Tech Restoration Improves Forest Resilience*" dated 20 Feb 2023 by Forest Service Employees for Environmental Ethics (FSEEE))

**NOTE 1:** As everyone knows, on Medical Lake's south/south east sides, there use to be a lot more wetlands before the Silver Hills development came through. In fact, wetland critters (i.e., snakes, frogs, etc.) were initially found inside the elementary school building since it is so very close to the wetland. These poor critters were only trying to go back to their homes (habitat)... If one does not believe this, just talk with some of these teachers, volunteers, staff, etc. I wonder if the parents at that time knew about this? Interesting to ponder on...

**NOTE 2:** As one is already aware of, Medical Lake's south and south east sides took a major hit from the Gray Fire.

**Solutions:**

- Avoid, as far as possible, activities in and adjacent to wetlands, such as in-filling, reclamation and infrastructure development which might reduce the role that the wetlands play in mitigating the impact of disasters and climate change.
- Manage and restore wetlands as part of contingency planning to reduce the impacts of natural phenomena.
- Carry on long-term research on wetlands and disaster risk management in the face of climate change.
- There is a strong need for better integration between environmental, development, and humanitarian actors, to enable effective prevention, response, and recovery.

❖ **Do you know wetlands are our natural guardians ("super power ecosystems") against climate change?**

- The earth's climate is changing at an unprecedented rate.
- As extreme weather events such as storms, flooding, droughts and heat waves increase in frequency, wetland protection and restoration increases climate resilience by buffering communities from coastal storm surges, reducing wave damage and floods, and stabilizing shorelines, water supplies and local microclimates.
- The protection and restoration of wetlands is a key component of the measures needed to mitigate climate change and reduce disaster risks.
- Disasters and the associated fatalities, losses, and damage often result from poor decisions and actions that make hazards more severe and communities more vulnerable to their impacts.
- Studies have shown that it is often more cost-effective to invest in the conservation of these ecosystems than in constructing hard infrastructures to enable resilience.
- The value of wetlands in countering disasters is seldom understood, and they are too rarely considered in disaster risk reduction (DRR) policies.
- Wetlands are natural water infrastructures, which can help to mitigate the physical impacts of hazards – climate change is increasing (at an unprecedented rate) the frequency of these extreme weather events causing droughts, floods, and storm surges.
  - An acre of wetland can store up to 1.5 million gallons of floodwater.
  - Wetlands capture CO<sub>2</sub> from the atmosphere and store more carbon than any other ecosystem on earth – high-carbon ecosystems.
  - Wetland soils contain a disproportionate share of the earth's total carbon – their soils hold 35% or more of the estimated 1,500 gigatons of organic carbon that is stored in soils
  - When wetlands are drained, deforested, dredged, or converted for agriculture, the carbon stored in the soils is released as CO<sub>2</sub>.

- Wetlands only occupy between 5% and 8% of the earth's total land surface.
- Over the long term, inland wetlands have declined more rapidly (averaging 61% loss) than coastal wetlands (46% lost).

**Solutions:**

- Integrating wetlands as natural infrastructure for DRR, alone or in conjunction with traditional "hard" infrastructure, can mitigate hazards and increase the resilience of local communities.
- The sustainable management of wetlands, and the restoration of those which have been degraded can help reduce the impact of hazards and help communities recover from disasters.

❖ **Do you know wetlands provide resilience to natural hazards?**

- Well-managed ecosystems can reduce the impact of many natural hazards, such as fire, flooding, droughts, landslides, and storm surges.
- The extent to which an ecosystem can buffer against extreme events depends on the ecosystem's health and the intensity of the event.
- Fire – wetlands can act as a natural barrier to the spread of fires, regulating the frequency and magnitude of the fire events.
- Droughts – healthy and well-functioning ecosystems can provide a degree of protection from extreme weather events. Wetlands can store water which provides a buffer against droughts.
- Erosion and landslides – Maintaining and restoring catchment, riparian and in-stream vegetation can stabilize soil, reduce runoff during storms and slow flood waters, reducing the risk of erosion to catchments and streambanks.

**Solutions:**

- Harnessing the natural capacity of wetlands to buffer communities against the adverse effects of climate change can increase climate resilience.
- Natural infrastructures, including wetlands, can help provide communities with resilience to these natural hazards.
- While most extreme events will overwhelm any mitigation approach (whether structural or natural), using natural assets can provide benefits in reducing the severity of the impact of extreme weather events, while structural approaches offer little benefit once breached.
- Promote collaboration between the development, humanitarian, and environment sectors to design and implement wetland-related solutions to increase resilience to disasters.
- Emphasize within sectoral policies and programmes, particularly those related to (Disaster Risk Reduction (DRR), that degradation of wetlands can cause disasters and amplify their impacts on water, food and energy security, and human health.
- Rapid environmental assessments conducted after a disaster should consider options for wetland restoration as a contribution to environmental recovery, reconstruction, and future resilience.

❖ **Do you know wetlands provide a connection to nature that contributes to improved mental health and wellbeing?**

- Wetland landscapes positively impact mental wellbeing research shows.
- The connection to nature that wetlands provide promotes mindfulness and a sense of emotional balance, contributing to improved mental health.
- Wetlands have inspired humankind's creative and spiritual minds from the earliest times and have contributed to the artistic heritage of perhaps all cultures around the world.
- Healthy wetlands advance human health depends on well-functioning wetlands.
- The degradation of wetlands has consequences for the mental health of populations who live in those settings, including solastalgia – grieving over the loss of place.
- Down the ages, water has been venerated as the sustainer of life and plays an important role in the world's major faiths.
- The scenes and associations of wetlands have contributed to the artistic heritage of perhaps all cultures around the world – from local and national to classical Western tradition.
- Folks living near wetlands have developed socio-cultural values around these ecosystems that are integral to their culture, spiritual life, and current existence.

**Solutions:**

- Women's distinct roles and experiences within societies across the globe supply them with unique knowledge and valuable perspectives on wetlands. Woman can play a crucial role in conserving the culture, folklore, music, mythology, oral traditions, customs, and traditional knowledge around these precious ecosystems.
- *By conserving our landscapes with their **natural beauty**, they will continue to be a **source of artistic inspiration**.*
- *Wetlands provide opportunities for **research and study that enrich science and universal culture**.*
- *Wetlands should have the support of local, regional, and international organizations because they are **lungs with great world importance, generating pure air**. At the same time, they are **natural filters that reduce pollution and soften the pounding of natural phenomenon**.*
- *It is thus everyone's obligation as individuals, and as organized forces to **defend, care, and maintain wetlands in perpetuity**.*

❖ **Do you know healthy wetlands advance human health?**

- Our health depends on well-functioning ecosystems – including wetlands.
- The World Health Organization recognizes that the health of humans, domestic and wild animals, plants, and the wider environment (including ecosystems) are closely linked and interdependent.

**Solution:** By linking humans, animals, and the environment, this can help to address the full spectrum of disease control – from prevention to detection, preparedness, response, and management – and contribute to global health society.

❖ **Do you know wetlands offer services that promote many determinants of good health?**

- Clean water, clean air, food security and nutritional variety, medicines, climate stabilization, protection against extreme weather (drought, storms, flooding, heat waves).
- Wetlands provide desperately needed drinking water. In fact, almost all the world's consumption of freshwater is drawn either directly or indirectly from wetlands. Only .75% of the world's freshwater is accessible for direct human use.

**Solution:** Stop the loss of wetlands. Remove the stressors and pressures on wetlands is the best practice for preventing further loss and degradation.

❖ **Do you know the rich biodiversity of wetlands reinforces the quality of life for people around the world?**

- Wetland biodiversity is critical to sustainable human development.
- Wetlands help to ensure our harmonious coexistence with nature.
- Wetlands protect against disease by ensuring healthy ecosystems and safe spaces for wildlife away from human habitats.
- Wetlands biodiversity supplies food, clean water, and jobs, protects against storms and floods, and mitigates the impacts of climate change.
- Wetlands supply medicine.
- Wetlands are home to more than 100,000 freshwater species.
- Wetlands are essential for many amphibians, reptiles, and migratory birds.
- Wetlands are one of the world's most biodiverse habitats, provide homes for many endangered species and offer a lifeline for freshwater species.
- 40% of the world's plant and animal species live or breed in wetlands to include 30% of all known fish species.
- Rivers and streams carry the rich nutrients found in wetlands to power the greater food chain.

**Solutions:**

- Again, removing the stressors and pressures on wetlands is the best practice for preventing further loss and degradation.
- When this is not feasible – or when degradation has already occurred – wetland restoration must be considered as a potential response option.

- ❖ **Do you know there are many corresponding contributions to humanity from the intrinsic, regulating, material, and non-material values of wetlands?**
  - The ability of a wetland to deliver the material value of reliable and high-quality water, the non-material sense of place that an individual or community feels for the wetland, the importance of the wetland for flood regulation, and the intrinsic right of species to exist can combine as strong values supporting wise use.
  - **Intrinsic Values & Contributions:**
    - Emanates from ecosystem components (living and non-living constituents of wetlands) which reinforces their ability to contribute benefits to folks – ecosystem properties.
    - Biota – species diversity.
    - Species assemblages – population and communities of wetland species.
    - Ecosystem processes – energy (nutrient dynamics).
  - **Regulating Values & Contributions:**
    - Comprises functional and structural aspects of wetlands that modify environmental conditions experienced by people.
    - Habitat creation and maintenance – wetlands as habitats for migratory birds within flyway.
    - Climate regulation – role of wetlands as carbon sinks.
    - Regulation of freshwater quantity, flow, and timings – role of wetlands in moderating floods and droughts.
    - Regulation of water quality – role of wetlands in water purification.
    - Regulation of hazards and extreme events – role of wetlands in moderating storm surges.
    - Regulation of pests – dragonflies and insectivorous birds controlling population of pest species such as mosquitoes.
  - **Material Values & Contributions:**
    - Includes substances, objects or other material elements from nature that sustain people's physical existence and infrastructure – typically consumable.
    - Food and fibre – wetlands as source of fish and rice.
    - Water – wetlands as source of freshwater for human and ecological use.
    - Medicinal, biochemical, and genetic resources – materials derived from wetlands for use as medicine and biotechnology.
  - **Non-Material Values & Contributions:**
    - Covers nature's contribution to people's subjective or psychological quality of life, individually and collectively – intangible contributions.
    - Physical and psychological experiences – wetlands as source of recreation and tourism.
    - Supporting identities – wetlands providing a sense of place and connectedness to communities.
    - Maintenance of options – capacity of wetlands to support current and future climate change adaptation.

## **THE ISSUE:**

- ❖ Wetlands make diverse contributions to human wellbeing, which folks and communities value.
- ❖ The consequences of wetland management and mismanagement affect all sectors of society.
- ❖ The values which people assign to wetlands and the impacts of wetland management decisions are not always adequately considered in development planning and other decision-making.
- ❖ When stakeholders in one sector make decisions based only on their interests, benefits to parties in other sectors may be undermined or lost, perpetuating wetland degradation and limiting options for wise use.
- ❖ The way wetlands are valued varies according to how different cultures, social groups and disciplines perceive the relationships between society and nature.
- ❖ Recognizing and assessing the full range of values is essential to making informed decisions on wetlands.

## **EXECUTIVE SUMMARY:**

- ❖ Wetlands are precious environments that teem with life, service, and value for all of society. As one is finding out, wetlands serve us in many important and surprising ways.
- ❖ Over the long term, inland wetlands have declined more rapidly (averaging 61% loss) than coastal wetlands (46% lost).
- ❖ The protection and restoration of wetlands is a key component of the measures needed to mitigate climate change and reduce disaster risks.
- ❖ These humble wetlands play a heroic part in curbing the effects of global climate change, but only if we protect those that remain and bring back the ones, we humans have already damaged or destroyed.
- ❖ Wetlands are indispensable for the countless benefits that they provide humanity; yet study after study demonstrates that wetland area and quality continue to decline in most regions of the world.

**Reminder: See Attachment #1 for online references used in this WWD Crash Course 101.**

**“I enter the swamp as a sacred place – a sanctum sanctorum. There is the strength, the marrow, of Nature.” -- Henry David Thoreau**

Thank you for taking your valuable time to properly digest this life-threatening topic.

May God's grace and protection be with the City's wetlands and humanity.



Tammy M. Roberson, MBA  
SMSgt USAF Retired  
Disabled Veteran (100% service connected)  
Concerned ML Resident/Wetland Owner  
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**WETLANDS AND PEOPLE. WE NEED EACH OTHER.**  
**EVERY WETLAND MATTERS. EVERY EFFORT COUNTS.**

**"Fighting Wildfires Is Pricy. Protecting Our Wetlands Is Priceless."**





# 2024 World Wetlands Day (WWD) “SHORT” Crash Course 101

## Planning Commission Meeting 25 Jan 2024

(As of: 25 Jan 2024)

### “Wetlands and Human Wellbeing”

**We must act now. Together. Take action to support wetlands every day.**

**“Fighting Wildfires Is Pricy. Protecting Our Wetlands Is Priceless.”**

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WETLANDS AND PEOPLE. WE NEED EACH OTHER.  
EVERY WETLAND MATTERS. EVERY EFFORT COUNTS.***



Good evening, Planning Commissioners and City Officials.

- ❖ **Do you know that every year on February 2<sup>nd</sup>, World Wetlands Day (WWD) joins folks around the globe in celebrating the value and beauty of our planet’s wetlands?**
  - It calls nations and each of us to act on behalf of these highly productive natural environments whose existence is interlaced with our own.
  - The UN Decade on Ecosystem Restoration is a call for the protection and revival of ecosystems around the world. It runs from 2021 to 2030.

❖ **Do you know humans are destroying wetlands – the Earth’s most threatened and most vulnerable ecosystem?**

- Wetlands are nature’s shock absorbers.
- Wetlands are a major, planet-wide habitat that makes life on Earth possible – essential for human life.
- From filtering water, to supporting biodiversity, to mitigating climate change, to protecting against extreme weather events (storms, droughts, wildfires, etc.), these ecosystems provide vital services that sustain our wellbeing.
- 80% of waste water is discharged into the natural environment without any form of treatment.
- Abundant plant life in wetlands absorbs waste, which helps purify the water.
- Wetlands silt-rich soil and plants naturally filter and store water.
- Wetlands are known as the Earth’s kidneys.
- Wetlands provide almost all our freshwater.

❖ **Do you know the 2024 WWD Campaign’s overriding message is?**

- Human wellbeing is irrevocably tied to the state of the world’s wetlands.
- We are dependent on these life-sustaining ecosystems.
- Wetlands must be healthy if they are to continue to provide us with water and food, support biodiversity, provide livelihoods, protect against extreme weather events, and mitigate against climate change.

❖ **Do you know the WWD Campaign’s key takeaway?**

- **Prioritize the protection and restoration of wetlands.**
- **Remove the stressors and pressures on wetlands.**
- **Prevents further loss and degradation.**
- **Equates to best practice.**

❖ **Do you know the potential restoration of wetlands IS NOT (the following)?**

- A substitute for protecting and ensuring the **wise use** of wetlands.
- A justification or a suitable tradeoff for the continued degradation of wetlands.

**Interesting Tidbits:**

❖ **Do you know human wellbeing and the health of the planet is at stake?**

- Triple planetary crisis of climate change, nature loss and pollution are harming human health.

- Human activities and climate change are driving degradation.
- As cities grow and the demand for land increases, development encroaches on wetlands.

**Do you know the poster for 2024 World Wetlands Day includes an illustration of a lone hummingbird?**

These fascinating creatures are found only in the Western Hemisphere and wetlands are critical to their survival.

Many are endemic to specific wetlands.

❖ **Do you know one can find wetland events taking place all over the globe on the official website of World Wetlands Day ([www.worldwetlandsday.org](http://www.worldwetlandsday.org) under events)? Even Medical Lake is listed!**

Wetland info is continually being posted on social media since 8 Jan 2024 to help the residents understand how human wellbeing is irrevocably tied to the state of the world's wetlands (which also includes the many wetlands located within the City of Medical Lake).

These postings educate everyone (to include City Officials) about how wetlands are a natural defense against wildfires (City's south and southeast portions where many wetlands used to exist took a major hit from the Gray Fire in Aug 2023), recognize how wetlands play a vital role in reducing extreme temperatures and droughts (which will also aid in preventing future wildfires), and finally, how wetlands are our guardians (super-power ecosystems) against climate change. These are just some of the topics that have been relayed via social media.

- I am praying that the City of Medical Lake will make wiser choices to minimize the loss and degradation of wetlands and will also be able to recognize human activities that threaten them (i.e., encroachment by development, buffer averaging, and incomplete/inaccurate wetland reports, etc.) -- to ensure their sustainable use by managing wetlands wisely.
- I am hoping that the City of Medical Lake understands that ecosystem-based solutions should complement other risk management measures such as early warning, evacuation, and contingency planning. (taken from Ramsar Policy Brief 1 Wetlands for disaster risk reduction: Effective choices for resilient communities)
- I am also praying that the general public (even Planning Commissioners/City Council/City Officials) will gradually understand how vital our wetlands are to humanity and will eventually step up to become their voice against human activity which threatens our City's wetlands.
- We need many "super-heroes" wetland champions and advocates to stand up for these biodiverse superpower ecosystems and stop their loss and degradation caused by humans before it becomes too late.

Slogans such as "**Wetlands. Nature's Greatest Resource.**" and "**Wetlands and People. We Need Each Other.**" and "**Every Wetland Matters. Every Effort Counts.**" will be marketed throughout the years to remind all of the vital importance to keep our City's own wetlands healthy.

**Friendly Reminders:** Do you remember Ecology only has regulatory authority over the “waters of the state” – the wetland waters? Do you remember the City is in control of the buffer which is supposedly there to protect the wetlands?

❖ **Do you know -- We must act now. Together. Take action to support wetlands every day?**

- Education yourself and others about how wetlands and human wellbeing are interconnected.
- Understand the value, significance, and contributions of the world’s wetlands and recognize human activities that threaten them.
- Raise wetland awareness and capacity in development planning to promote nature-based approaches.
- Inspire the public to take action for healthy wetlands.
- Create an advocacy effort that encourages local, state, and national governments to prioritize wetlands as part of their sustainable development and climate action efforts.
- Join the global effort to care, nurture and support the world’s wetlands for the wellbeing of present and future generations.

For our “short” 2024 World Wetlands Day Crash Course 101, this handout will focus only on five major wetland questions/topics:

- ❖ Do you know wetlands retains water on the landscape?
- ❖ Do you know wetlands are a natural defense against wildfires?
- ❖ Do you know wetlands are humanity’s natural guardians against climate change?
- ❖ Do you know wetlands provide resilience to natural hazards?
- ❖ Do you know wetlands provide a connection to nature contributing to improved mental health and wellbeing?

For many more topics, facts, corresponding solutions, the issue, and an executive summary refer to the longer version handout (12 pages).

1) **Do you know wetlands play a vital role in retaining water on the landscape, in maintaining local climate (microclimates) and water cycles, and in reducing extreme temperatures?**

(Taken from Ramsar Policy Brief #1: “Wetlands for disaster risk reduction: Effective choices for resilient communities”; Ramsar Briefing Note #10: “Wetland Restoration for Climate Change Resilience”; and [www.worldwetlandsday.org](http://www.worldwetlandsday.org))

- Stores water from precipitation and slowly releases it to the surrounding environment, which can also recharge groundwater aquifers and maintain atmospheric water cycles.
- Evaporation and the transpiration of water from vegetation have a local cooling effect.
- Draining wetlands reduces local water storage and can lead to increases in local daytime temperatures.

2) **Do you know wetlands are a natural defense against wildfires?**

(Taken from "Wetlands – natural defense against wildfires" by Cathy Vaughan, 23 Oct 2023 and "Low-Tech Restoration Improves Forest Resilience" dated 20 Feb 2023 by Forest Service Employees for Environmental Ethics (FSEEE))

- **"Fighting wildfires is pricy. Protecting our wetlands is priceless."**
- "When wetlands are healthy, they are natural sponges and soak up a huge amount of water. A wetland can act as a natural fire break and reduce the intensity of a wildfire."
- Moisture-laden wetlands help prevent fires and can act as natural barriers to the spread of forest fires.
- Wet soggy soil does not burn so well.
- Besides helping to prevent or slow down the spread of fires, "Wetlands can reduce the severity of flooding and drought, holding excess water during wet periods and slowing releasing it during dry periods. They also store carbon and provide essential habitat for migratory and threatened species."

**NOTE 1:** As everyone knows, on Medical Lake's south/south east sides, there use to be a lot more wetlands before the Silver Hills development came through. In fact, wetland critters (i.e., snakes, frogs, etc.) were initially found inside the elementary school building since it is so very close to the wetland. These poor critters were only trying to go back to their homes (habitat)... If one does not believe this, just talk with some of these teachers, volunteers, staff, etc. I wonder if the parents at that time knew about this? Interesting to ponder on...

**NOTE 2:** As one is already aware of, Medical Lake's south and south east sides took a major hit from the Gray Fire.

3) **Do you know wetlands are our natural guardians ("super power ecosystems") against climate change?**

(Taken from Ramsar Briefing Note #10 "Wetland Restoration for Climate Change Resilience"; Ramsar Policy Brief #1 "Wetlands for disaster risk reduction: Effective choices for resilient communities"; Ramsar Convention on Wetlands "Wetlands restoration: unlocking the untapped potential of the Earth's most valuable ecosystem") and [www.worldwetlandday.org](http://www.worldwetlandday.org) (Wetlands and Climate (Infographics)/MS PowerPoint (PP) presentation))

- The earth's climate is changing at an unprecedented rate.
- As extreme weather events such as storms, flooding, droughts and heat waves increase in frequency, wetland protection and restoration increases climate resilience by buffering communities from coastal storm surges, reducing wave damage and floods, and stabilizing shorelines, water supplies and local microclimates.
- The protection and restoration of wetlands is a key component of the measures needed to mitigate climate change and reduce disaster risks.

- Disasters and the associated fatalities, losses, and damage often result from poor decisions and actions that make hazards more severe and communities more vulnerable to their impacts.
- Studies have shown that it is often more cost-effective to invest in the conservation of these ecosystems than in constructing hard infrastructures to enable resilience.
- The value of wetlands in countering disasters is seldom understood, and they are too rarely considered in disaster risk reduction (DRR) policies.
- Wetlands are natural water infrastructures, which can help to mitigate the physical impacts of hazards – climate change is increasing (at an unprecedented rate) the frequency of these extreme weather events causing droughts, floods, and storm surges.
  - An acre of wetland can store up to 1.5 million gallons of floodwater.
  - Wetlands capture CO<sub>2</sub> from the atmosphere and store more carbon than any other ecosystem on earth – high-carbon ecosystems.
  - Wetland soils contain a disproportionate share of the earth's total carbon – their soils hold 35% or more of the estimated 1,500 gigatons of organic carbon that is stored in soils
  - When wetlands are drained, deforested, dredged, or converted for agriculture, the carbon stored in the soils is released as CO<sub>2</sub>.
  - Wetlands only occupy between 5% and 8% of the earth's total land surface.
  - Over the long term, inland wetlands have declined more rapidly (averaging 61% loss) than coastal wetlands (46% lost).

#### 4) **Do you know wetlands provide resilience to natural hazards?**

(Taken from "Wetlands and resilience to natural hazards" and Ramsar Policy Brief 1 "Wetlands for disaster risk reduction: Effective choices for resilient communities")

- Well-managed ecosystems can reduce the impact of many natural hazards, such as fire, flooding, droughts, landslides, and storm surges.
- The extent to which an ecosystem can buffer against extreme events depends on the ecosystem's health and the intensity of the event.
- Fire – wetlands can act as a natural barrier to the spread of fires, regulating the frequency and magnitude of the fire events.
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- Erosion and landslides – Maintaining and restoring catchment, riparian and in-stream vegetation can stabilize soil, reduce runoff during storms and slow flood waters, reducing the risk of erosion to catchments and streambanks.

5) **Do you know wetlands provide a connection to nature that contributes to improved mental health and wellbeing?**

(Taken from [www.worldwetlandsday.org](http://www.worldwetlandsday.org) (Wetlands and Culture (Infographics)/MS PP Presentation))

- Wetland landscapes positively impact mental wellbeing research shows.
- The connection to nature that wetlands provide promotes mindfulness and a sense of emotional balance, contributing to improved mental health.
- Wetlands have inspired humankind's creative and spiritual minds from the earliest times and have contributed to the artistic heritage of perhaps all cultures around the world.
- Healthy wetlands advance human health which depends on well-functioning wetlands.
- The degradation of wetlands has consequences for the mental health of populations who live in those settings, including solastalgia – grieving over the loss of place.
- The scenes and associations of wetlands have contributed to the artistic heritage of perhaps all cultures around the world – from local and national to classical Western tradition.

**“I enter the swamp as a sacred place – a sanctum sanctorum. There is the strength, the marrow, of Nature.”** -- Henry David Thoreau

Thank you for taking your valuable time to properly digest this life-threatening topic.

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SMSgt USAF Retired  
Disabled Veteran (100% service connected)  
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# Life interlaced Wetlands and people

CARE – NURTURE – SUPPORT





**From:** [Tammy Roberson](#)  
**To:** [Elisa Rodriguez](#); [Roxanne Wright](#)  
**Cc:** [Sonny Weathers](#); [Judy Mayulianos](#); [Marye Jorgenson](#); [Mark Hudson](#); [Andie Mark](#); [Carl Munson](#)  
**Subject:** Written Comments for Planning Commission Meeting - 25 Jan 2024  
**Date:** Thursday, January 25, 2024 12:36:42 PM  
**Attachments:** [1.png](#)  
[FINAL PC Short Version Crash Course WWD 101.pdf](#)  
[FINAL PC Long WWD Crash Course 101.pdf](#)  
[FINAL PC Attachment #1 References Used for Crash Course WWD 101.pdf](#)  
[WWD2024\\_Color-In\\_English.pdf](#)  
[Poster WWD 2024.pdf](#)

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## **"Wetlands and Human Wellbeing"**

**We must act now. Together. Take action to support wetlands every day.**

**" Fighting Wildfires Is Pricy . Protecting Our Wetlands Is Priceless ."**

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***EVERY WETLAND MATTERS. EVERY EFFORT COUNTS.***



Good afternoon, Ms Rodriguez.

**Please acknowledge receipt.**

**Please print in color. Please also include this email in the official record.**

**NOTE: 2024 Wetlands World Day (WWD) Presentation will be for educational purposes.**

Per the instructions in the Planning Commission's meeting agenda written public comments, here is the requested information:

1. Meeting Date is 25 Jan 2024
2. Tammy Roberson
3. ML City Resident
4. Interested Citizens: Audience Requests and Comments

As previously done in the past, requesting please that the attached handouts become part (an attachment) of the approved final Minutes official record to be posted online.

Thank you for your time.



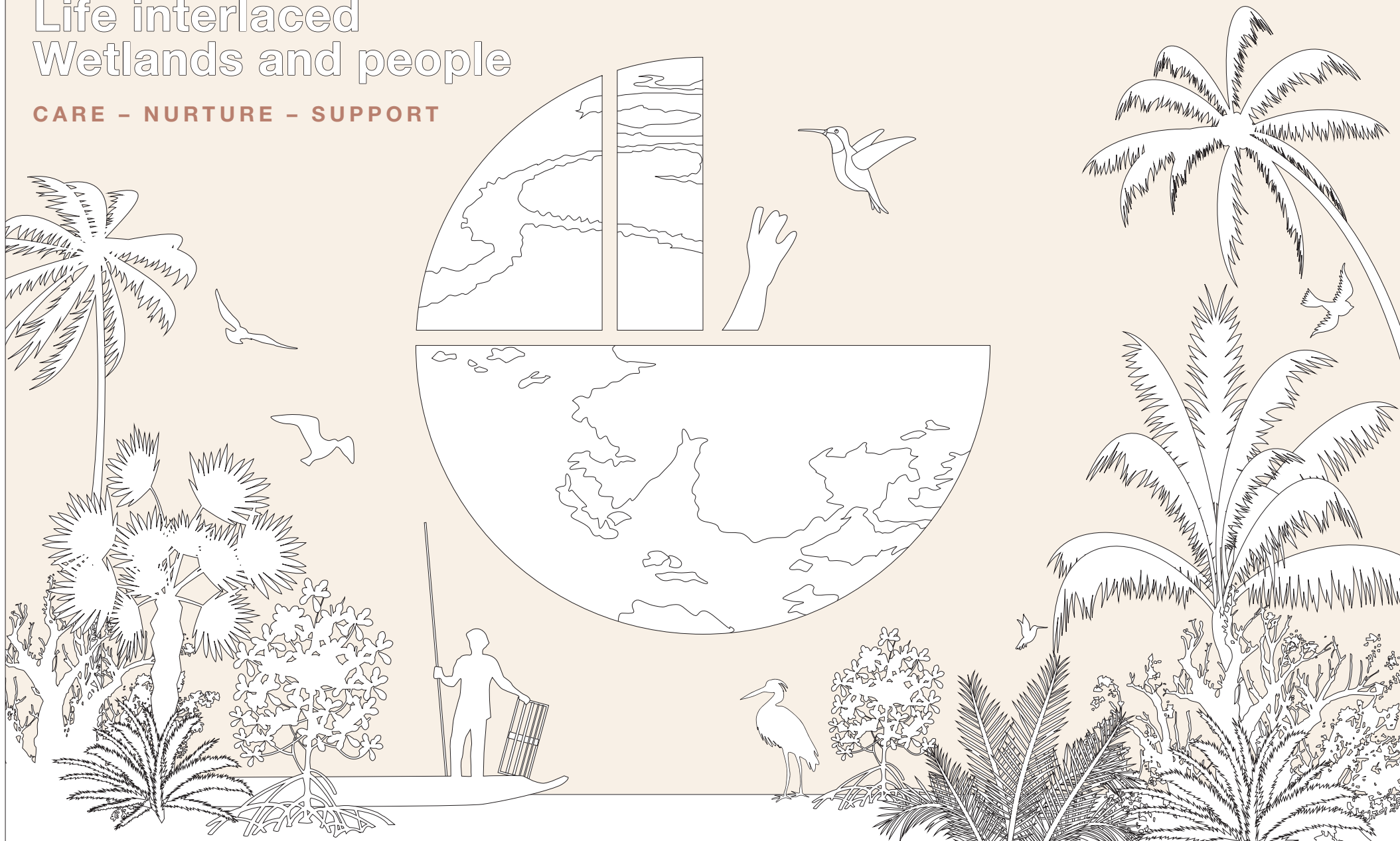
Tammy M. Roberson, MBA  
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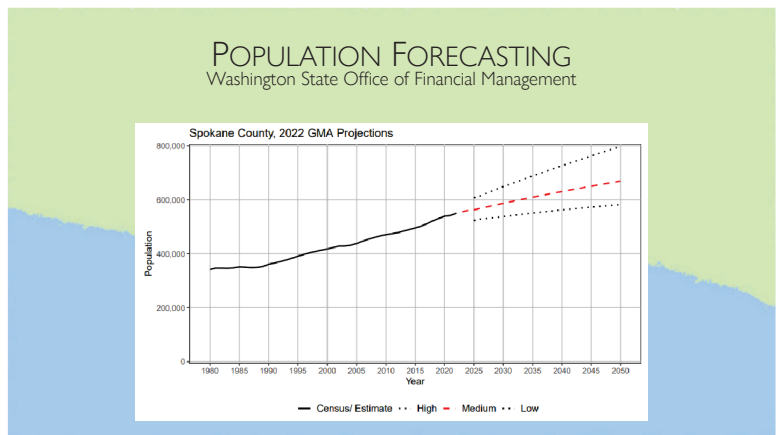
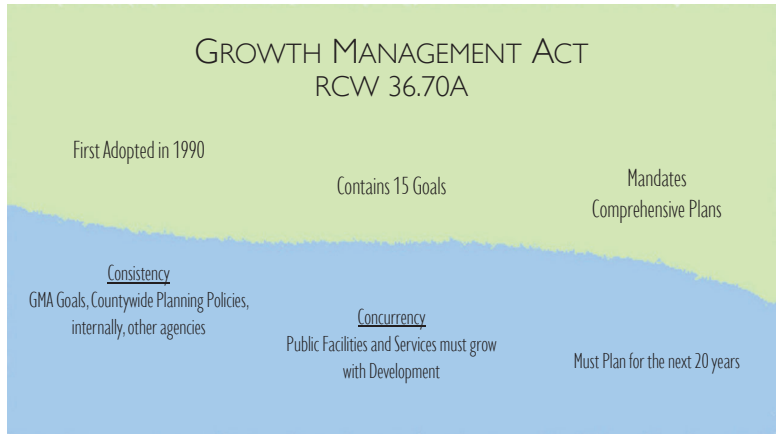
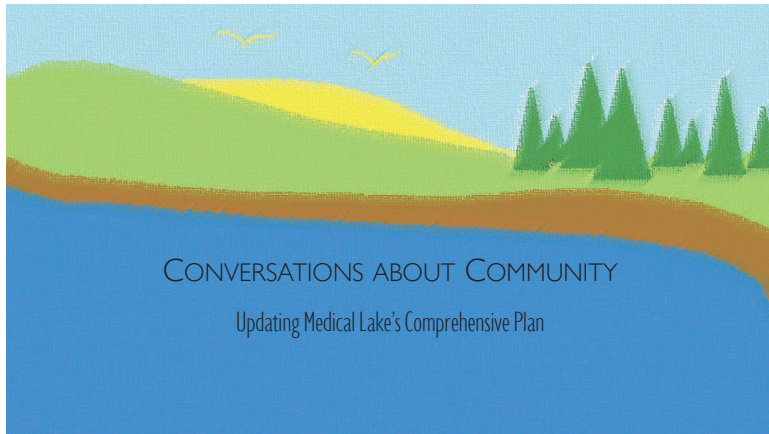
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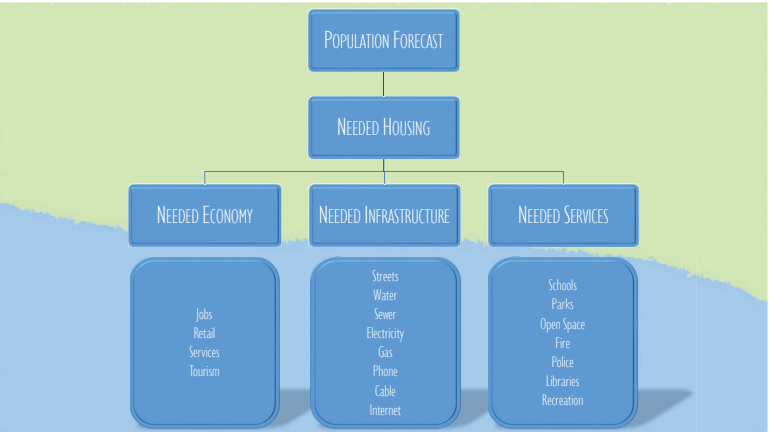
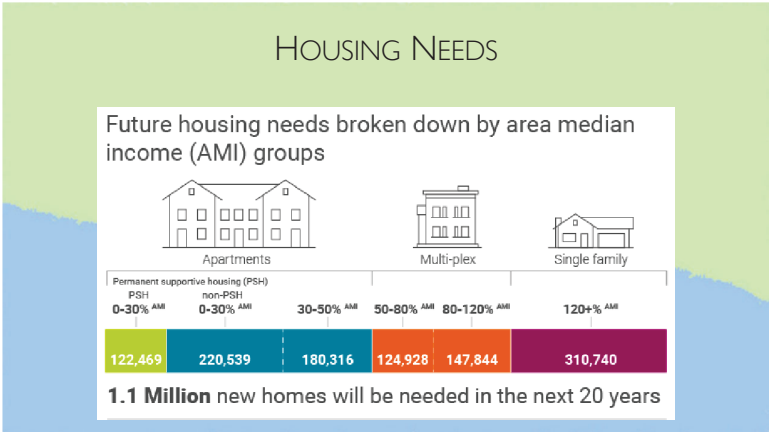
***" Fighting Wildfires Is Pricy. Protecting Our Wetlands Is Priceless."***

# Life interlaced Wetlands and people

CARE – NURTURE – SUPPORT







WE DECIDE WHAT OUR COMMUNITY LOOKS LIKE







# GROWTH MANAGEMENT ACT RCW 36.70A

First Adopted in 1990

Contains 15 Goals

Mandates Comprehensive Plans

Consistency  
GMA Goals, Countywide Planning Policies, internally, other agencies

Concurrency  
Public Facilities and Services must grow with Development

Must Plan for the next 20 years

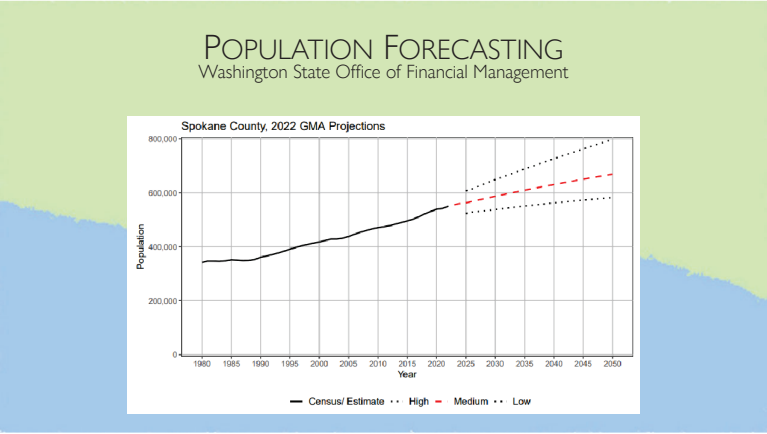
# COMPREHENSIVE PLAN

**Mandatory Comp Plan Elements**

- Land Use
- Housing
- Capital Facilities Plan
- Utilities
- Transportation
- Climate Change and Resiliency

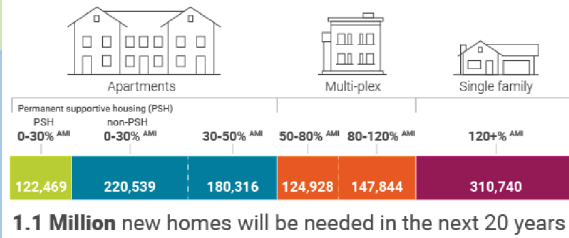
**Optional Comp Plan Elements**

- Economic Development
- Parks and Recreation
- Conservation
- Solar Energy
- Recreation



## HOUSING NEEDS

Future housing needs broken down by area median income (AMI) groups



POPULATION FORECAST

NEEDED HOUSING

NEEDED ECONOMY

NEEDED INFRASTRUCTURE

NEEDED SERVICES

Jobs  
Retail  
Services  
Tourism

Streets  
Water  
Sewer  
Electricity  
Gas  
Phone  
Cable  
Internet

Schools  
Parks  
Open Space  
Fire  
Police  
Libraries  
Recreation

## EXAMINE ZONING AND LAND CAPACITY

Does our zoning code provide the opportunity for what we need?

Do we need to change our zoning code?

Do we have enough land to accommodate our needs?

Do we need more land (UGA)?

## ALL THIS PROVIDES A FRAMEWORK





WE DECIDE WHAT OUR COMMUNITY LOOKS LIKE

