**THE LANDSCAPE OF FOREVER:**

**VISIBILITY PROTECTION IN THE AMERICAN WEST**

Potential examples/templates to use as references for style, appearance, presentation (although content of WRAP storyboard will be substantially different):

EPA storyboard (the catalyst for WRAP storyboard project:

<https://epa.maps.arcgis.com/apps/Cascade/index.html?appid=e4dbe2263e1f49fb849af1c73a04e2f2>

EPA air trends report:

<https://gispub.epa.gov/air/trendsreport/2018/>

1. **A Sense of Place**
   1. The importance of public lands
      1. Public lands are a pervasive part of physical and cultural landscape in the West, in a way that isn’t true in the East
      2. Clear, unobstructed views of these lands are crucial to enjoying them, for many stakeholders, from tourists to American Indian and Alaska Native tribes
   2. The impact of human population
      1. Physical environment of the West, including its public lands, help fuel growth of population and economy
      2. Balancing this growth with protection of public lands is ongoing challenge
2. **A New Mandate Protecting the Views of the American West**
   1. Federal Visibility Protection Program and Class I areas in the West
      1. Congress ordered EPA to protect visibility at designated public lands (Class 1 Areas) nationwide
      2. EPA developed Regional Haze program in response to this mandate
   2. Partnerships: many stakeholders in Regional Haze planning process
      1. EPA & FLMs
      2. State/local air agencies
      3. American Indian Tribes & Alaska Natives
      4. Industry
      5. Public interest groups
3. **Natural Visibility Conditions in the West**
   1. Visual range
      1. In ordinary, anecdotal experience, we can generally see longer distances in the West than the East.
      2. Why is that? The science in a nutshell.
   2. Geography and topography
      1. The West is physically very different than the East and this is important for explaining differences in visibility
      2. Variation by season, latitude, altitude
      3. Causes of aridity that influences aerosol formation
   3. Natural phenomena
      1. Dramatic natural events without real equivalents in the east
      2. Examples: wildfires, wind, dust, volcanoes, biogenics
      3. Impact of climate change on natural events
4. **Western Vistas and Human Activity**
   1. Emissions from industry and commerce
      1. Predominant economic activities in the West, and their geographic distribution, differ in their visibility impact compared to situation in the East
      2. Examples: EGUs, oil and gas, prescribed fire, agriculture/rangeland, mining
   2. International transport
      1. Visibility in the West is impacted more by international transport than is the East
      2. Examples: Russia, China
   3. What is controllable and what isn’t?
      1. Distinguish natural vs. anthropogenic causes of obstructed visibility
      2. Distinguish between controllable and uncontrollable anthropogenic emissions
5. **Emissions and Visibility Progress in the West**
   1. Review positive emissions trends
   2. Review positive visibility trends at Class 1 Areas
6. **The Future: regional haze planning for 2028**
   1. Describe WRAP activities in current planning period
   2. Direct audience to further information/participation opportunities