The John Day Innovation Gateway Water Reuse System

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Reimagining John Day

A Place where the Old West meets the New West



John Day Main Street Cattle Drive, c. 1968



John Day River Valley, c. 2015 Courtesy of Jeff Meyerholtz

A portfolio of problems...

- Highest unemployment rate in Oregon since 2010 (7.3% as of March 2018)
- Most economically distressed area in Oregon (Oregon Sec. of State Distressed areas, 2018)
- Second poorest broadband connectivity (avg. data speeds < 10 mbps down/ 1 mbps up)
- Second lowest median household income (\$32,614 per household)
- Majority of residents are low-to-moderate income households (57% as of 2018)
- Second lowest real market property values and fourth lowest assessed values
- Loss of 40% of student enrollment since the year 2000, reducing much-needed funding for schools
- Third highest rate of population decline with continued loss projected at the rate of -0.5% per year
- Inadequate, undersized and aging workforce housing with rental vacancy rates less than 1%
- Workforce development and human capital challenges restricting economic expansion
- Aging critical infrastructure in both public and private sector developments
- Complex geographic constraints including floodplain mitigation; intensively managed watersheds; wildfires and forest management; coupled with competing interests over the use of public lands and natural resources

50 Years of Net-Zero Population Growth







Collapse: How Societies Choose to Fail or Succeed

Jared Diamond (2005)



Root causes: human impact, climate change, friendly trade partners (lost incentives), hostile actors (competition), political/economic/cultural factors

Four primary decision failures:

- Failure to recognize a problem (creeping normalcy)
- Failure to adapt (or choose not to) once they do recognize a problem
- Adaptations are not effective
- Adaptations are effective, but are implemented too late





"This is your wake-up call—change or die."



Strategy for Growth

- 1. Digital commuters
 - 2. Active retirees
- 3. Young, working families



- 1. Digital marketing/re-branding
- 2. Recreational amenities
- 3. Competitive broadband
- 4. Housing & Development



Cost structure alignment

- Investments that fuel growth
- Align costs with capabilities
- Cut "non-strategic" spending
- Dedicated and secure funding
- Monetize existing assets



Reorganize for growth

- Identify strategic partners
- Engage local stakeholders
- Build internal capacity



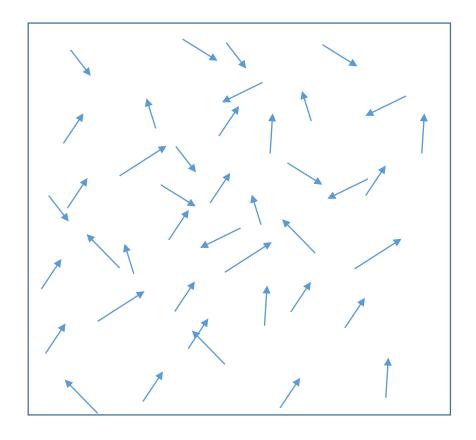
Adapted from Strategy& (PwC) *Fit for Growth* framework, A practical approach to business transformation, 2016

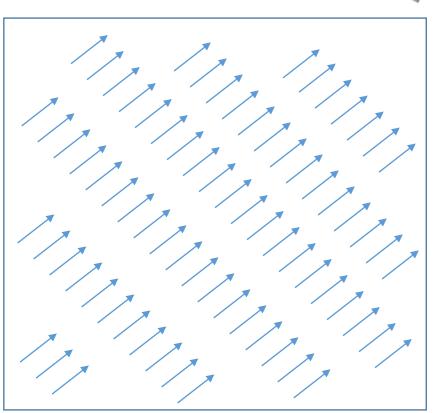
City of John Day — Top 10 Revenue Sources FY17

Revenue Source	Funding Use	Jurisdiction		
 Water Sales 	\$635,000	Water	City	Local
 Sewer User Fees 	\$550,000	Sewer	City	control
 Property Taxes 	\$270,000	Unrestricted	City	1990's era tax policy
 State 9-1-1 Tax 	\$265,000	911	State	
 Grant County Forest Receipts 	\$180,000	Streets	County	
 Franchise Fees 	\$106,000	Unrestricted	City	
 State Gasoline Tax 	\$91,000	Streets	State	Per capita distribution
 State Excise Tax (Cigarettes/Liquor) 	\$27,500	Unrestricted	State	
 State Revenue Sharing 	\$16,000	Unrestricted	State	
City Licenses	\$7,100	Unrestricted	City	
Net Revenue \$2,150,000				



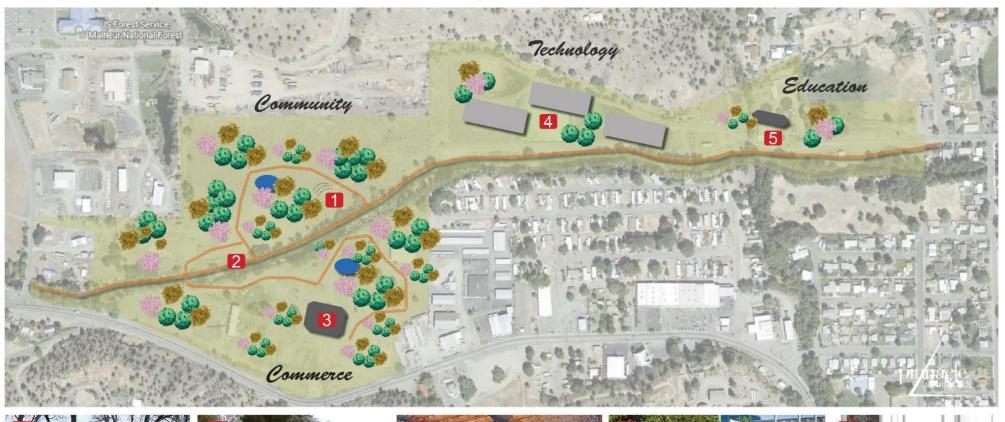
We need a magnet investment







The integration of community, technology, education, and commerce.





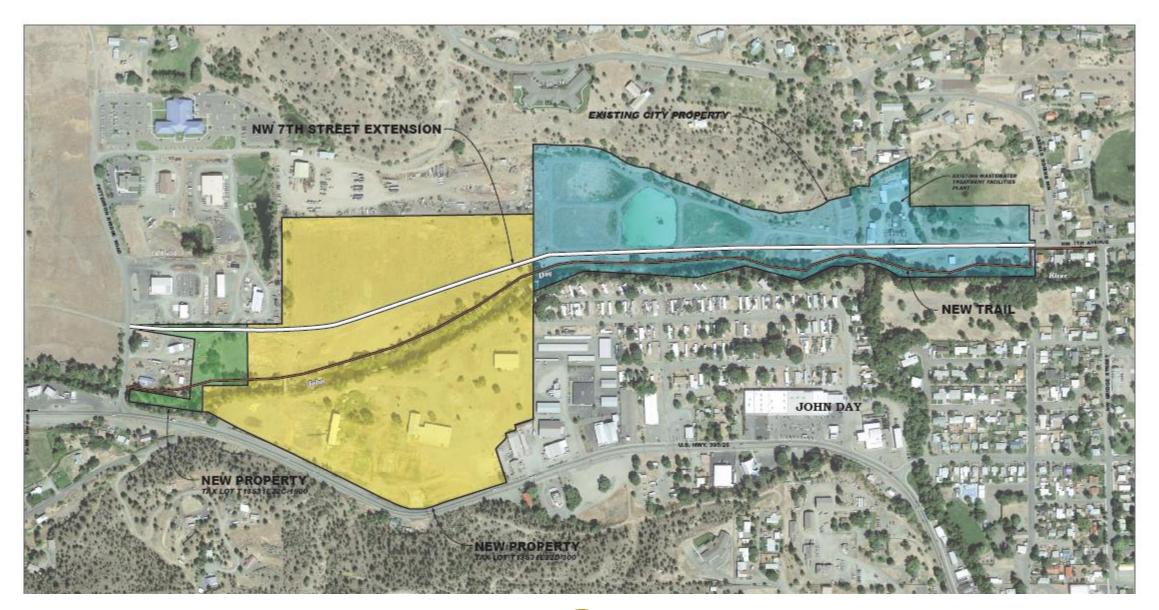














Sustainable Wastewater Treatment Facility Wastewater (Conceptual Framework) Reclamation Sustainable Renewable water energy source source Cogeneration = Steam + power for hydroponics facility **Hydroponic** Agriculture Cash crops for Locally Woody local use and harvested **Biomass** export woody **Gasification** biomass CITY OF JOHN DAY

Most Essential

Capital Improvement

New Wastewater Treatment Plant

- DEQ Permit expired in 2007, operating under administrative review
- \$8-10M projected cost
- Hydroponic wastewater treatment
- Reclaims over 80M gallons of water per year
- Feasibility Team = Anderson Perry & Sustainable Water (Glen Allen, VA)
- Potential Oregon Agricultural Experiment Station for OSU research

Next step: Financing (one-stop)







Sample hydroponics systems







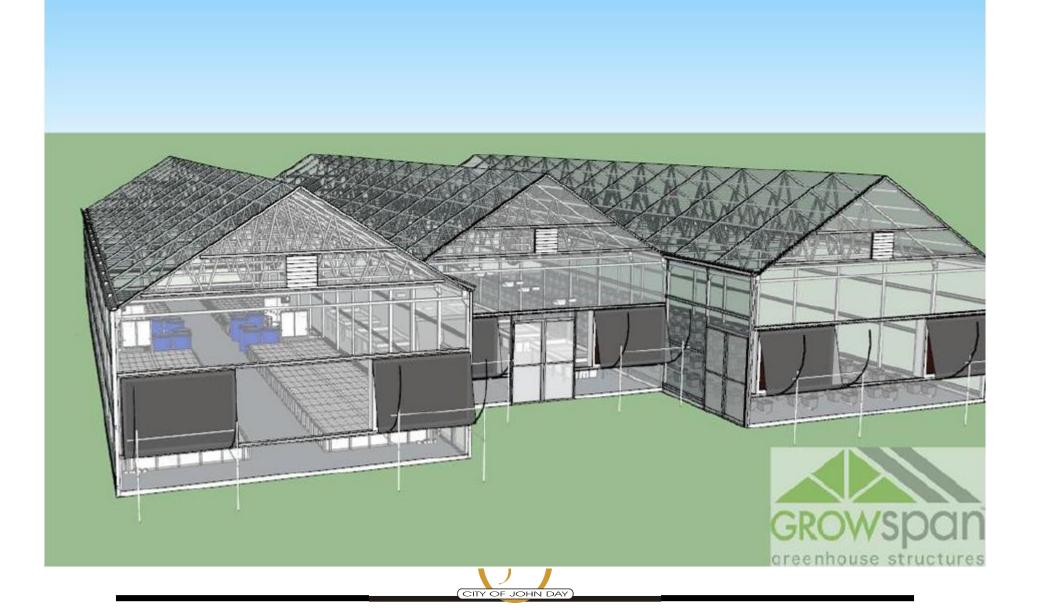












80-acre Innovation Center

- Reclaimed water treatment plant
- Commercial scale greenhouses
- Multi-use trails and paths
- Improved signage (rebranding)
- Redeveloped greenway
- Botanical gardens and water features
- Outdoor amphitheater

- Academic campus for research
- Commercial innovation opportunities
- Recreational amenities
- Multiple agencies benefit
- Community gathering places
- State-of-the-art technology
- Creating new opportunities for rural innovation



The integration of community, technology, education, and commerce.









Amphitheater

Theme Gardens









(CITY OF JOHN DAY)

Education

Public Art

Pathways / River Walk

The integration of community, technology, education, and commerce.



Research Education



Commercial Greenhouses



Export Crops

The integration of community, technology, education, and commerce.









Concerts / Events

Weddings / Party Rentals









Destination / Agritourism



Themes to motivate future development

- Open campus model for academic research (research park)
- Focus on rural innovation and rural value creation
- Blend recreation, education, and productivity
- Create a destination attraction for visitors, businesses and guests
- Identify new opportunities for revenue generation
- Create an **integrated value chain** that enhances planned and existing amenities for ranching, forestry, conservation and renewable energy
- Advance the science and art of reclaimed water usage
- Integrate gigabit broadband infrastructure to support advanced industries
- Create a beautiful and scenic environment for conventions and trade shows
- Capitalize on our natural assets abundant land, sunlight and water
- Build a lasting community asset that improves our quality of life



