



Background

- September 12, 2013 – 100 to 500 Year Flood Event
- 18,000 cfs above Left Hand Creek
- 27,000 cfs below confluence with Left Hand Creek



Background

- Significant damage to public and private property and infrastructure



Background

- Damage to City's St. Vrain Greenway



Background

- Prior to 2013 Flood
 - Updated St. Vrain Floodplain – Anderson Study
 - Looked at options to improve channel to carry 100 year flows
 - Enhance corridor (recreation/aesthetics) and development/redevelopment options – St. Vrain Blueprint



St. Vrain Blueprint Study Area



— major road
— minor road
+++++ railroad

St. Vrain Blueprint Study Area

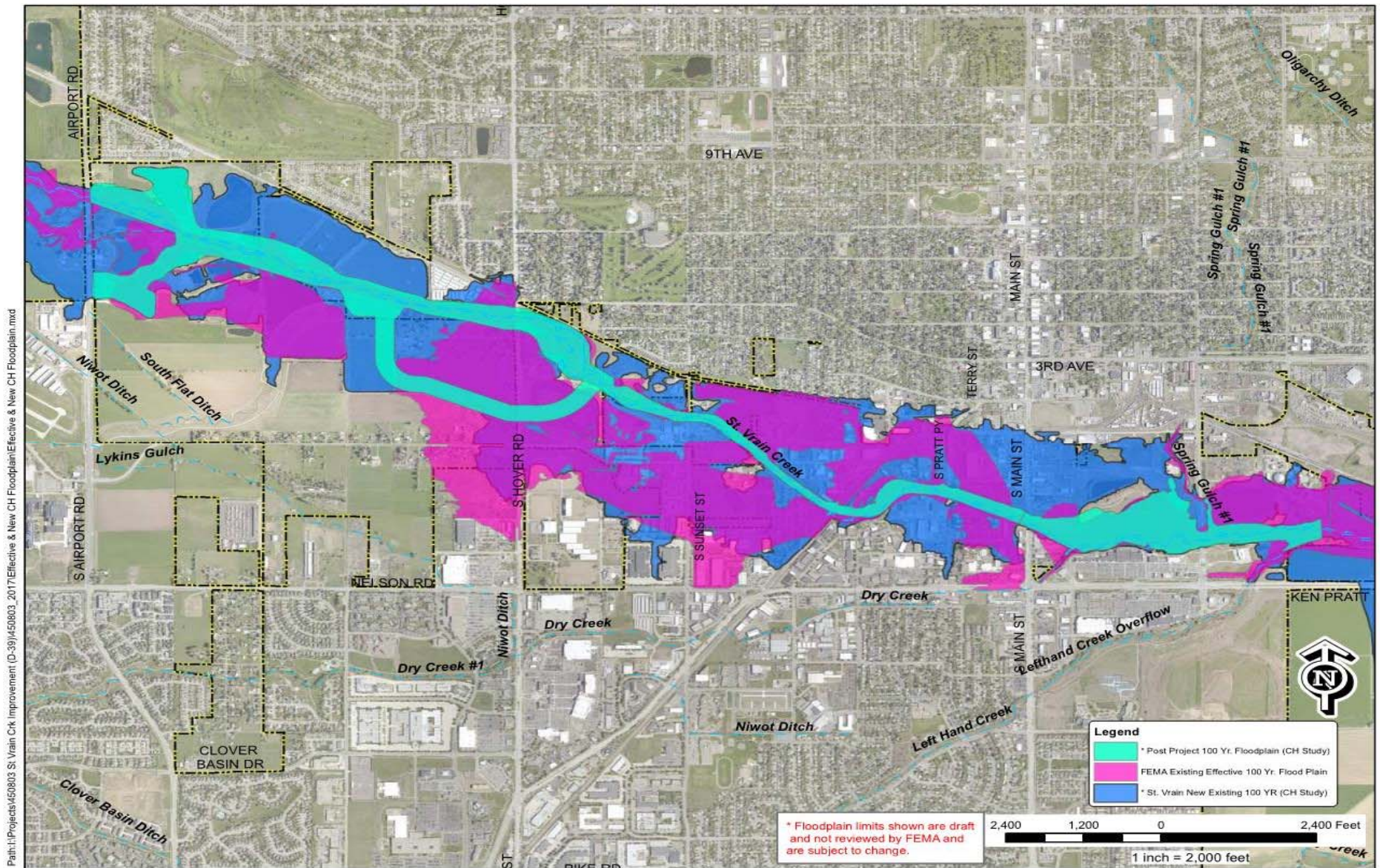
0 500 1,000 1,500 2,000 feet
↑

St. Vrain Blueprint Goals

1. Significantly reduce property, infrastructure, and life safety hazards due to 100-year flood events.
2. Restore and enhance the St. Vrain Greenway to natural conditions and improve user amenities and experience within the greenway environment.
3. Leverage safety improvements and a beautiful greenway to encourage quality investment and economic development on properties in the St. Vrain Blueprint Plan Area.



Regulatory, Existing Conditions, Post Project



Work Predicated on and Coordinated with Existing Plans

- 2001 The St. Vrain Greenway Master Plan East Corridor Update
- 2002 Open Space and Trails Master Plan (volume II)
- 2005 The Wildlife Management Plan
- 2006 Southeast Longmont Urban Renewal Plan
- 2006 Focus on Longmont Strategic Plan



...Existing Plans continued

- 2010 St. Vrain Greenway Riparian Corridor Protection Plan
- 2012 The 1st & Main Station Transit & Revitalization Plan
- 2014 Parks, Recreation & Trails Master Plan
- 2014 Dickens Farm Park Master Plan (August draft)



...Existing Plans continued

- 2014 Saint Vrain Creek through Longmont: 100-Year Analysis and Conceptual Design
- 2014 St. Vrain Creek Watershed Master Plan
- Longmont Land Development Code
- 2016 Envision Longmont
- Longmont Sustainability Plan



Stakeholder and Community Input

- Property owner meetings
- Booth tent at Rhythm on the River and community downtown events
- Public charrette, citizen meetings
- Open houses

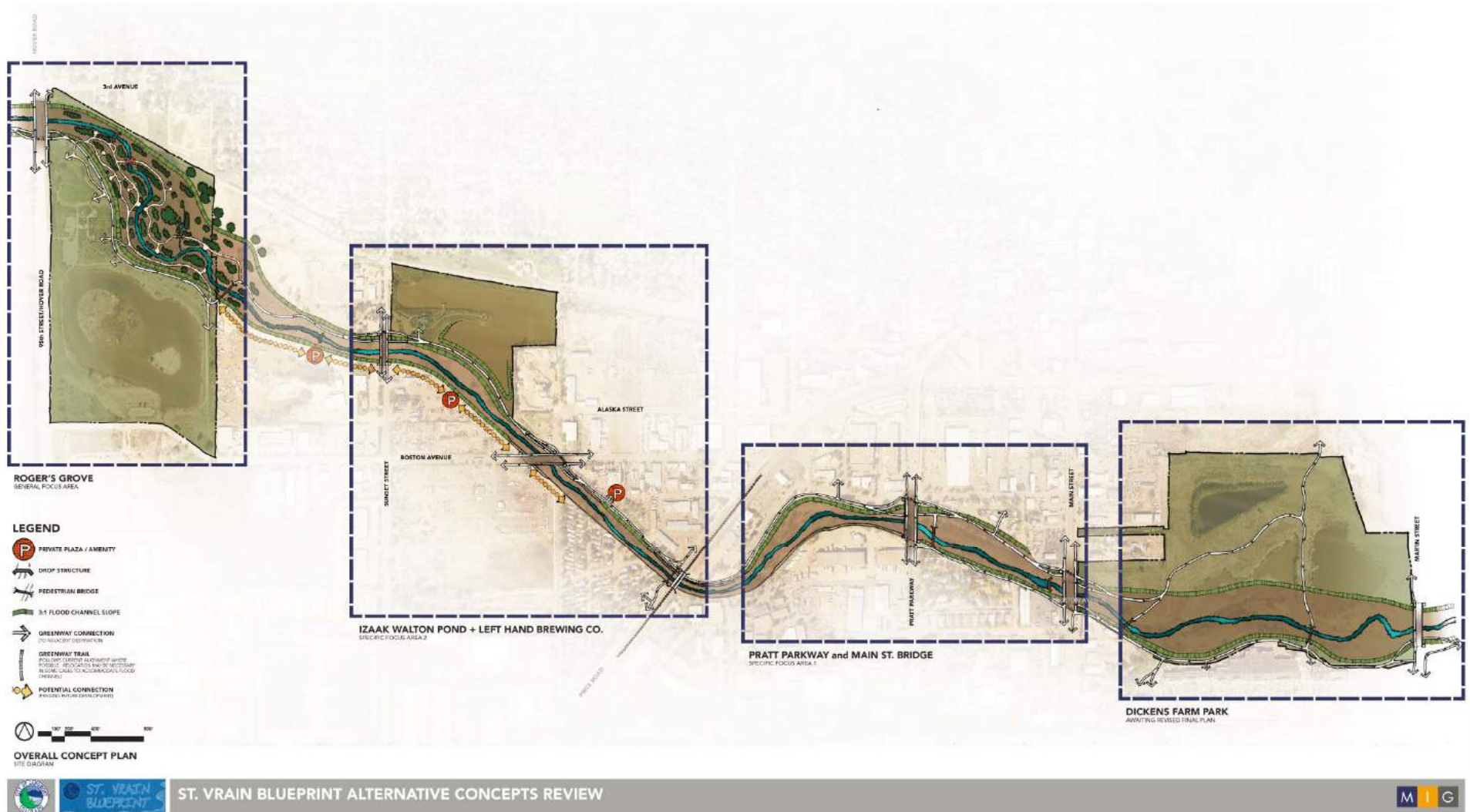


The Evolving Blueprint Scope

- Originally commissioned to be a redevelopment study
- Study commenced in June 2013, flood occurred in September 2013,
- Scope of study changed to recovery and resiliency



Alternative Scenarios—Greenway Corridor & Focus Areas



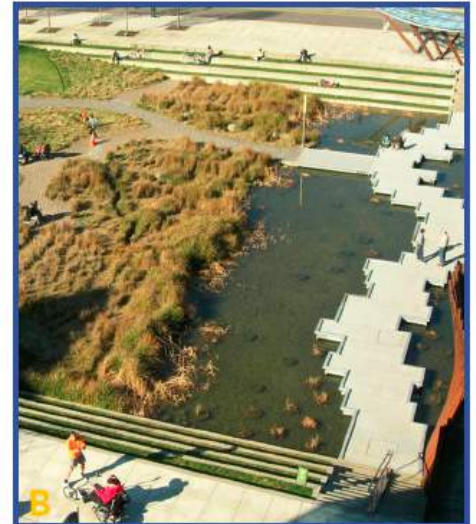
...Greenway Alternative Scenarios continued



ROGER'S GROVE CONCEPT PLAN : NATURE EDUCATION
SCALE : 1" = 100' - 0"



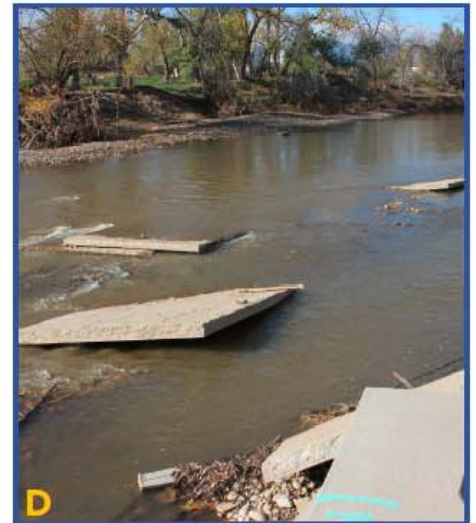
A



B



C



D

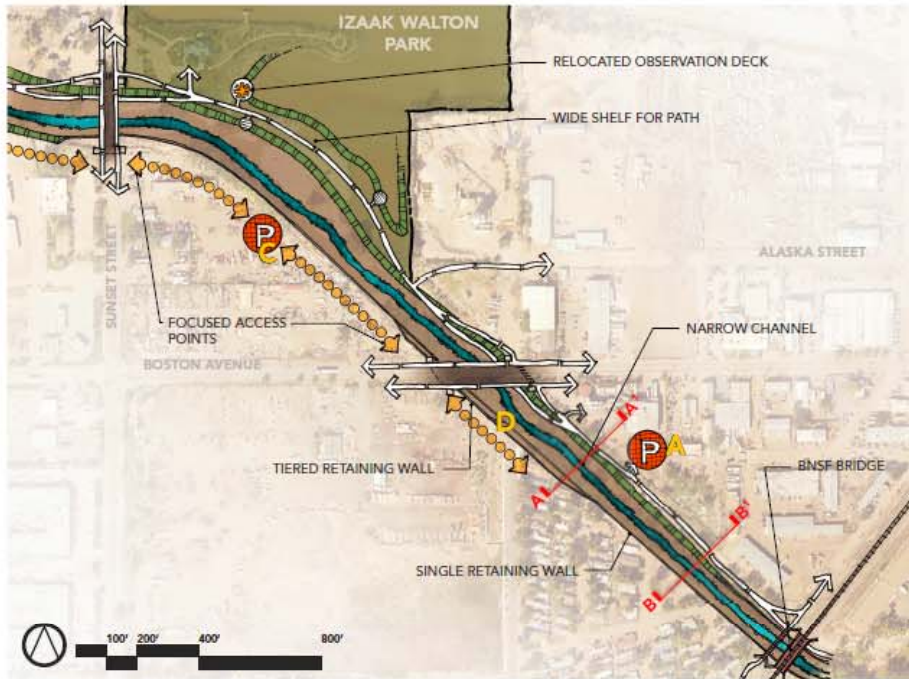
SOURCES OF INSPIRATION
NOTED ON MAP ABOVE



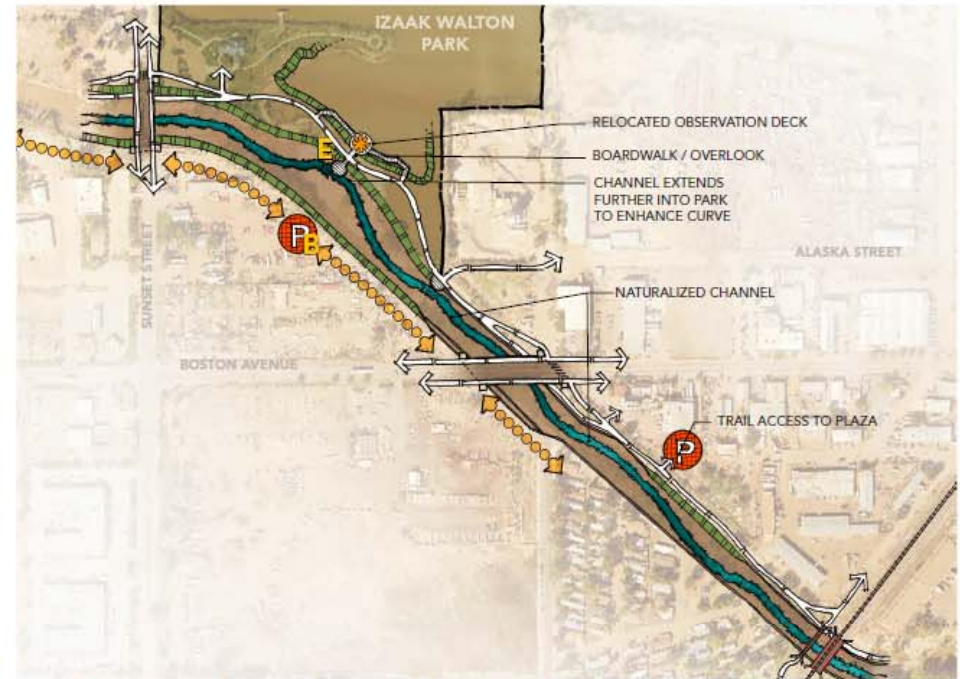
ST. VRAIN BLUEPRINT ALTERNATIVE CONCEPTS REVIEW



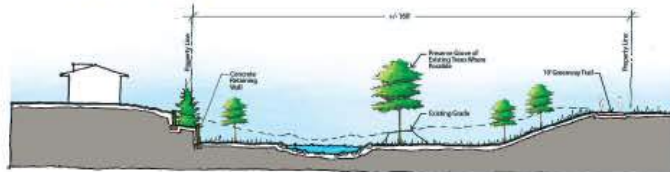
...Greenway Alternative Scenarios continued



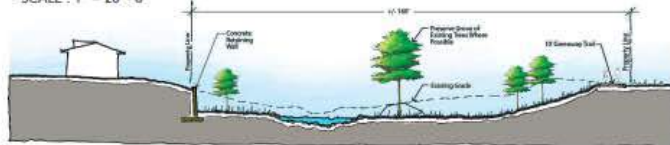
IZAAK WALTON POND + LEFTHAND BREWERY DESIGN FOCUS AREA SITE PLAN
CONCEPT ALTERNATIVE [A]



IZAAK WALTON POND + LEFTHAND BREWERY DESIGN FOCUS AREA SITE PLAN
CONCEPT ALTERNATIVE [B]



PROPOSED DESIGN ALTERNATIVE SECTION [A-A']
SCALE: 1" = 20' - 0"



EXISTING ENGINEERED SECTION [B-B']
SCALE: 1" = 20' - 0"



SOURCES OF INSPIRATION
NOTED ON MAP ABOVE



ST. VRAIN BLUEPRINT ALTERNATIVE CONCEPTS REVIEW



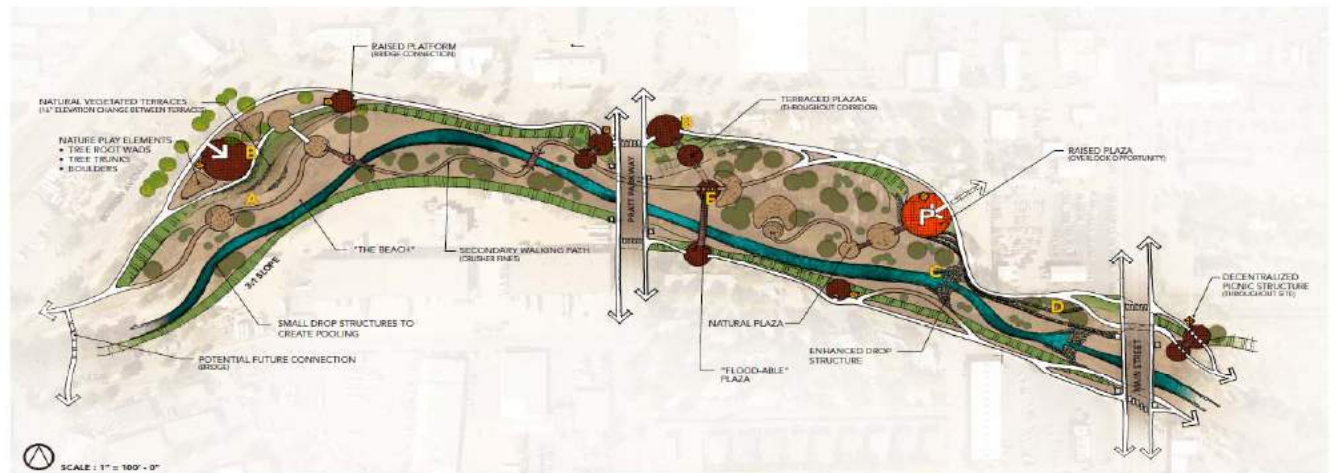
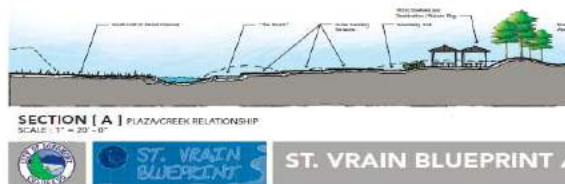
Izaak Walton Section View



...Greenway Alternative Scenarios continued



PRATT PARKWAY and MAIN STREET BRIDGE DESIGN FOCUS AREA SITE PLAN
CONCEPT ALTERNATIVE [A]



PRATT PARKWAY and MAIN STREET BRIDGE DESIGN FOCUS AREA SITE PLAN
CONCEPT ALTERNATIVE [B]



SOURCES OF INSPIRATION
NOTED ON MAP ABOVE



ST. VRAIN BLUEPRINT ALTERNATIVE CONCEPTS REVIEW



South of Boston Court View



Focus Area: Main Street to BNSF Bridge



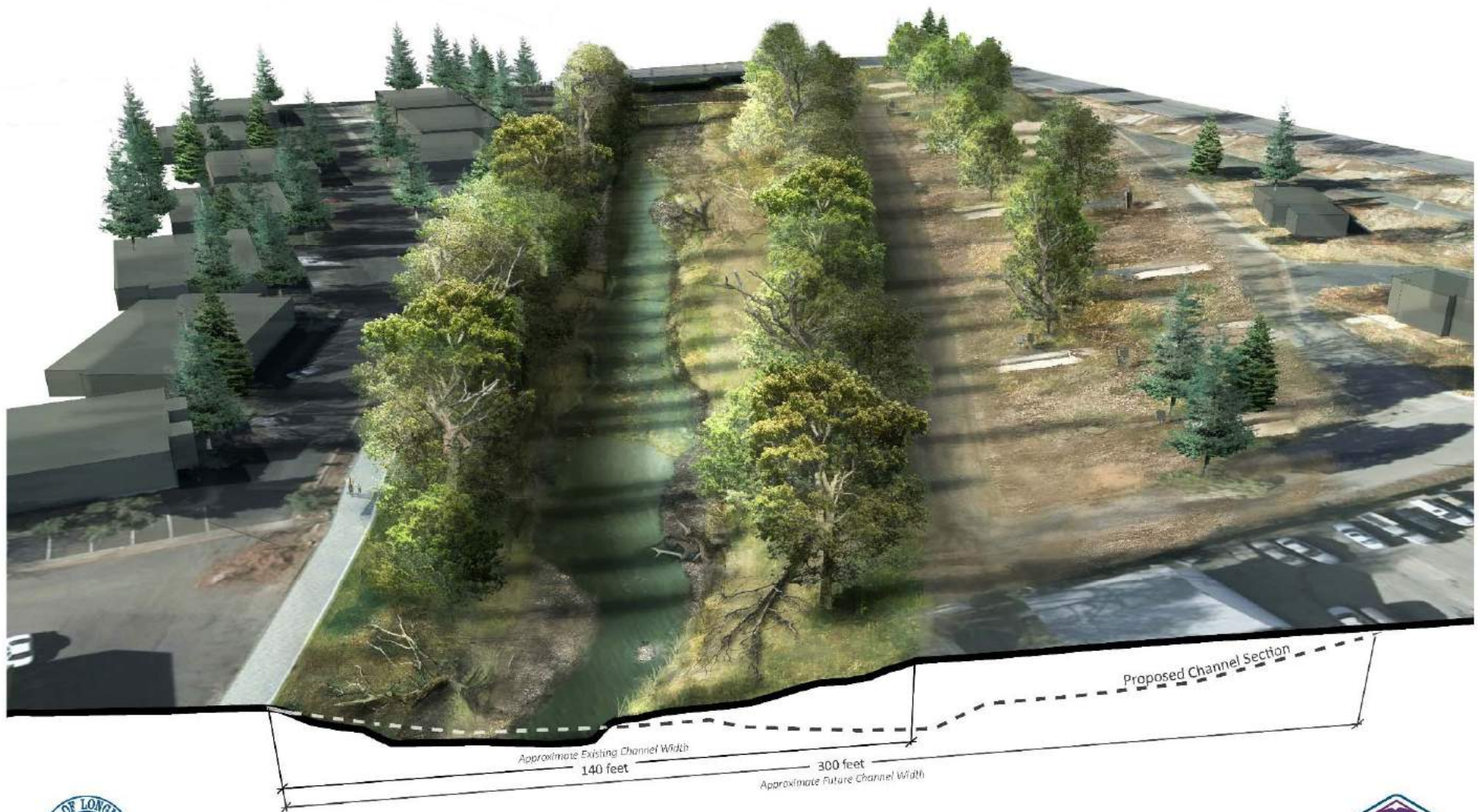
Greenway concepts: Pratt Parkway Bridge pre-flood (upper right), post-flood (lower right), and new design concept (above)

St Vrain Blueprint and Resilient St Vrain Working in Tandem

- Concepts of natural stream design and environmentally friendly natural stream riparian corridor communicated to RSVP.
- Vision of creek greenway restoration being implemented by RSVP



Example of Channel Cross Section



LONGMONT, COLORADO
MARCH 2017

RESILIENT ST. VRAIN PROJECT
CITY REACH 2A - EXISTING CONDITIONS
MAIN STREET to SOUTH PRATT PARKWAY



Example of Channel Cross Section



LONGMONT, COLORADO
MARCH 2017

RESILIENT ST. VRAIN PROJECT
CITY REACH 2A - POST CONSTRUCTION MATURE VEGETATION CONDITIONS
MAIN STREET to SOUTH PRATT PARKWAY



Example of Channel Cross Section



LONGMONT, COLORADO
MARCH 2017

RESILIENT ST. VRAIN PROJECT
CITY REACH 2B - EXISTING CONDITIONS
SOUTH PRATT PARKWAY to THE BNSF RAILROAD BRIDGE



Example of Channel Cross Section



LONGMONT, COLORADO
MARCH 2017

RESILIENT ST. VRAIN PROJECT
CITY REACH 2B - POST CONSTRUCTION MATURE VEGETATION CONDITIONS
SOUTH PRATT PARKWAY to THE BNSF RAILROAD BRIDGE



Design Themed Infrastructure

- Use of sandstone as a locally referenced resource,
- Acknowledge previous bridge designs on KPB,
- Main Street and Sunset Bridges
- Art on Main Street bridge part of greenway vision



Bridges & Materials



Bridges & Materials



Wildlife Considerations

- Public input on greenway character was natural conditions native to Colorado high plains riparian system.
- Goal to restore flood damaged greenway to wildlife habitat areas,
- Design of RSVP has wildlife corridor on south sided of creek corridor.



Wildlife Considerations

- Existing 150' wildlife setback applies over existing developed properties,
- SVBP recommends leaving 150' setback in place until a post project condition better defines what the creek corridor will look like,
- Wildlife management plan update can evaluate.



Redevelopment

- SVBP plan includes imagery of potential redevelopment vision,
- Redevelopment will result in positive economic impact,
- Redevelopment/reinvestment will occur over time, not immediately
- Reflected in Envision Longmont and compatible with 1st and Main transit area



Alternative Scenarios—Concept Images



Land Use Concepts: Boston/Bowen



Land Use Concepts: Greenway Neighborhood



Land Use Concepts: Boston Avenue



St. Vrain Blueprint

LAND USE CONCEPTS: BOSTON / BOWEN NEIGHBORHOOD



St. Vrain Blueprint

LAND USE CONCEPTS: FIRST & MAIN NEIGHBORHOOD



Resiliency

- SVBP is fundamentally about resiliency
- SVBP plan reviewed using the Sustainability Evaluation System – some insights gained
- Use of materials that are manufactured with minimal energy, carbon, and water use
- Use of materials to reduce energy, carbon, and water use in application & are weather resistant



Resiliency

- Use of recycled materials
- Reuse of existing structures and materials to reduce demolition waste
- Use of locally sourced materials to reduce transportation needs and related carbon emissions
- Use of building materials that can be recycled or reused at the end of their lifespans



Resiliency

- Use of materials that are responsibly harvested or extracted
- Avoiding use of toxic materials
- Design of site to maximize solar access
- Optimization and adaption of existing infrastructure
- Use of natural water quality systems on site.



Questions

- Council direction

