

Omaha CSO Program Overview

2019 Sediment and
Erosion Control Seminar

February 7, 2019



This is why I love my job, this is why I
am passionate about clean water



Natalie

CSO is not a sewer separation program, it is not the City's sewer overhaul program.



When Omaha is 'done' separating the sewers as a part of CSO, it will have separated less than 20% of its combined sewer system

The CSO Program is a Public Health Program that must meet federal law that requires us to reduce the amount of human sewage and disease causing bacteria that enter the rivers and streams.

In a Typical Year, the City of Omaha Generates Over 8 billion gallons of Wet Weather Combined Sewage, most of this is storm water runoff

Overflow at CSO 105
near OPPD North
Omaha Station,
June 3, 2014



Sediment and Erosion Control and pollution prevention – is making sure we take care of our mess and make sure it isn't someone else's mess.

Stream samples, West Papillion Creek, downstream of Omaha, after Christmas 2016 rain event



About 330 square miles of the Papio Watershed are served by the City of Omaha's collection system. Of this, less than 9 square miles have combined sewers.

Program Goals

The Omaha CSO Program is improving water quality in area rivers and streams by reducing combined sewage overflows. This is a requirement of the ***Clean Water Act***. The CSO program focuses in three areas — **regulatory compliance**, **economic affordability**, and **community acceptance**.





Goal 1:

Regulatory Compliance

Regulatory Compliance includes two items:

- Implement projects according to the schedule in our NPDES permit with the NDEQ
- Reduce pollutant discharge to the Missouri River and Papio Creek



Goal 2:

Economic Affordability



Economic Affordability is the minimization of the financial burden to the ratepayers/customers.



Goal 3:

Community Acceptance



Community Acceptance provides continuous open dialogue with the public along with timely program and project information. Additionally the CSO Program provides neighborhood benefits beyond the sewer system and water quality enhancements.

Program Benefits

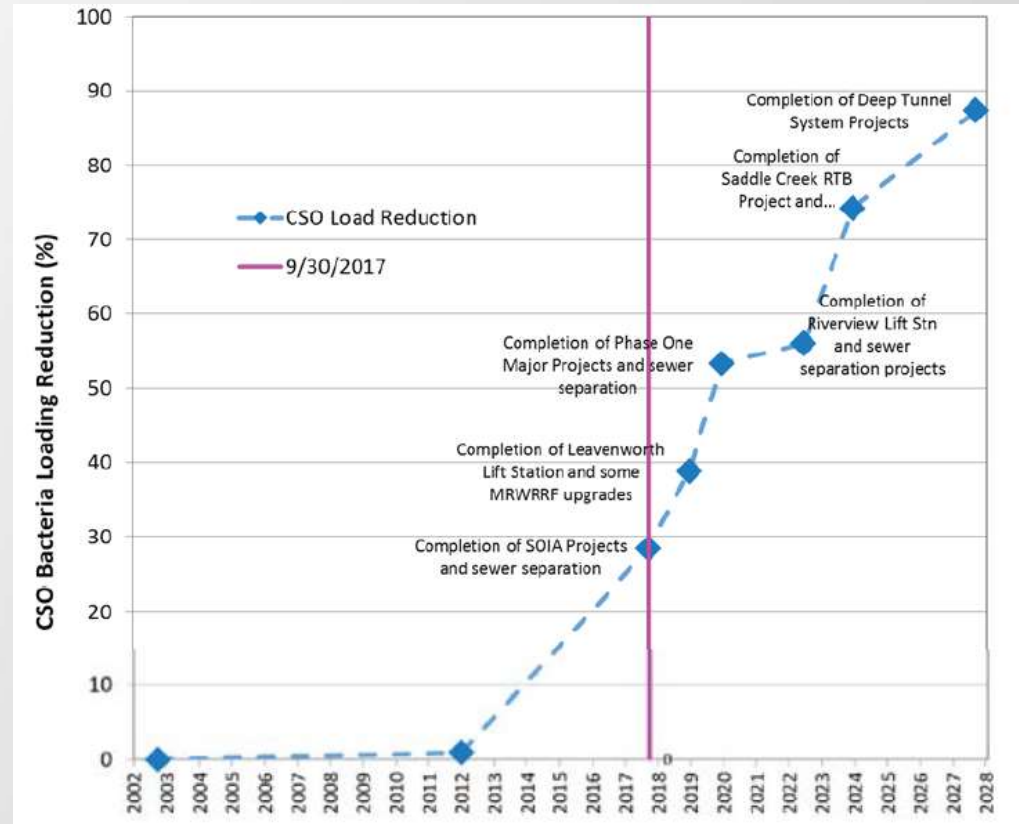
Estimated reduction of bacterial loading in CSOs as projects are completed.

UPDATED INFRASTRUCTURE –

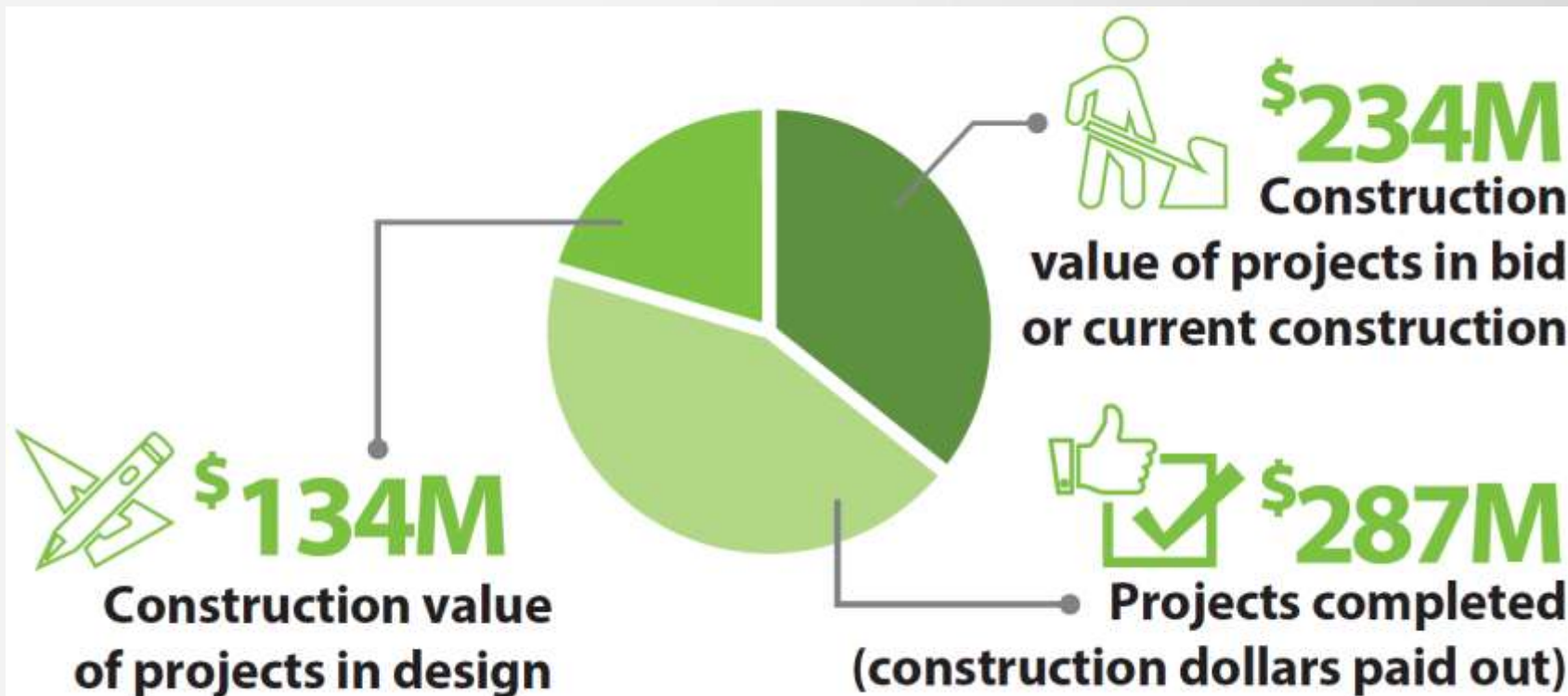
Over 56,000 feet of constructed or rehabilitated sewer pipe

IMPROVED WATER QUALITY –

- Compliance with **Clean Water Act of 1972**
- Reduced pollutant discharge to the Missouri River and Papillion Creek
- Reduced health risks
- Reduced risks to wildlife
- Reduce harmful effects to the environment



CSO Project Costs



CSO Projects

 **21** Completed Projects

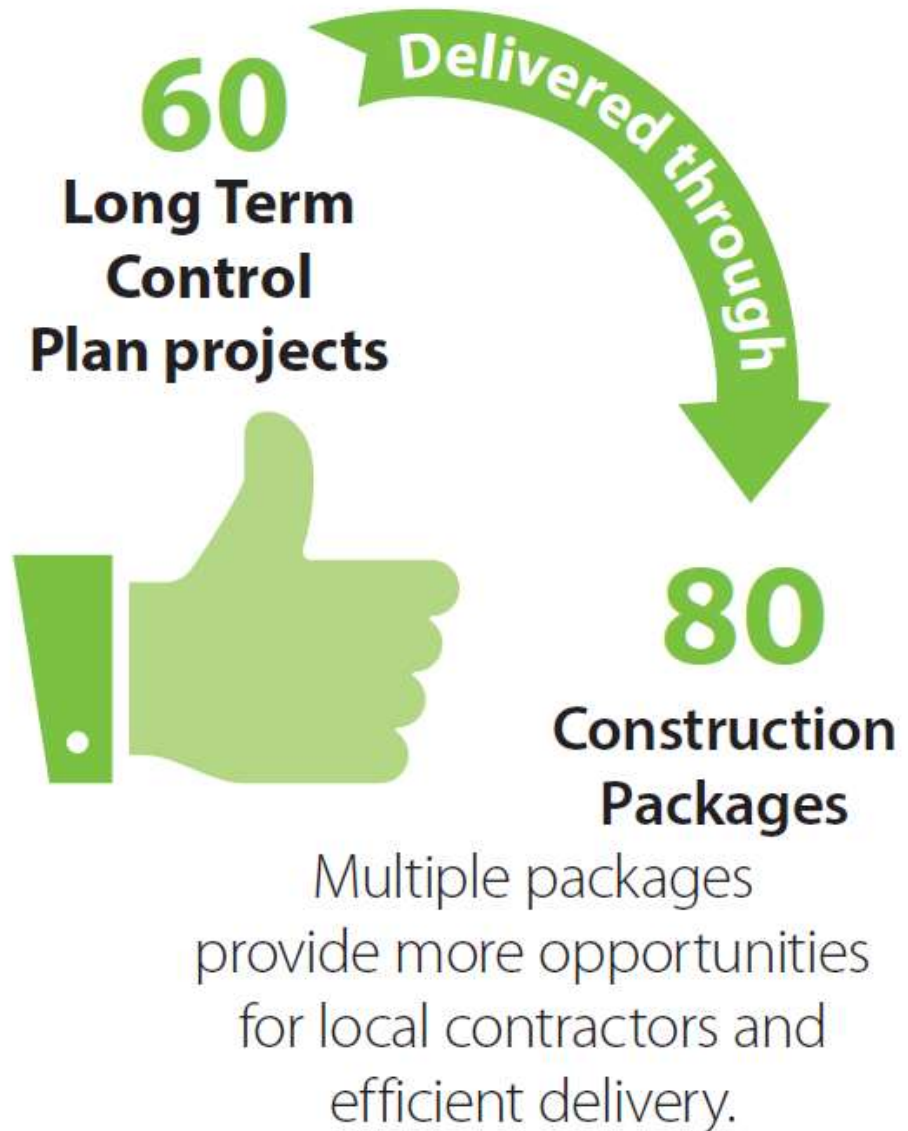
 **7** Bid/Construction Projects

 **12** Study & Design Projects

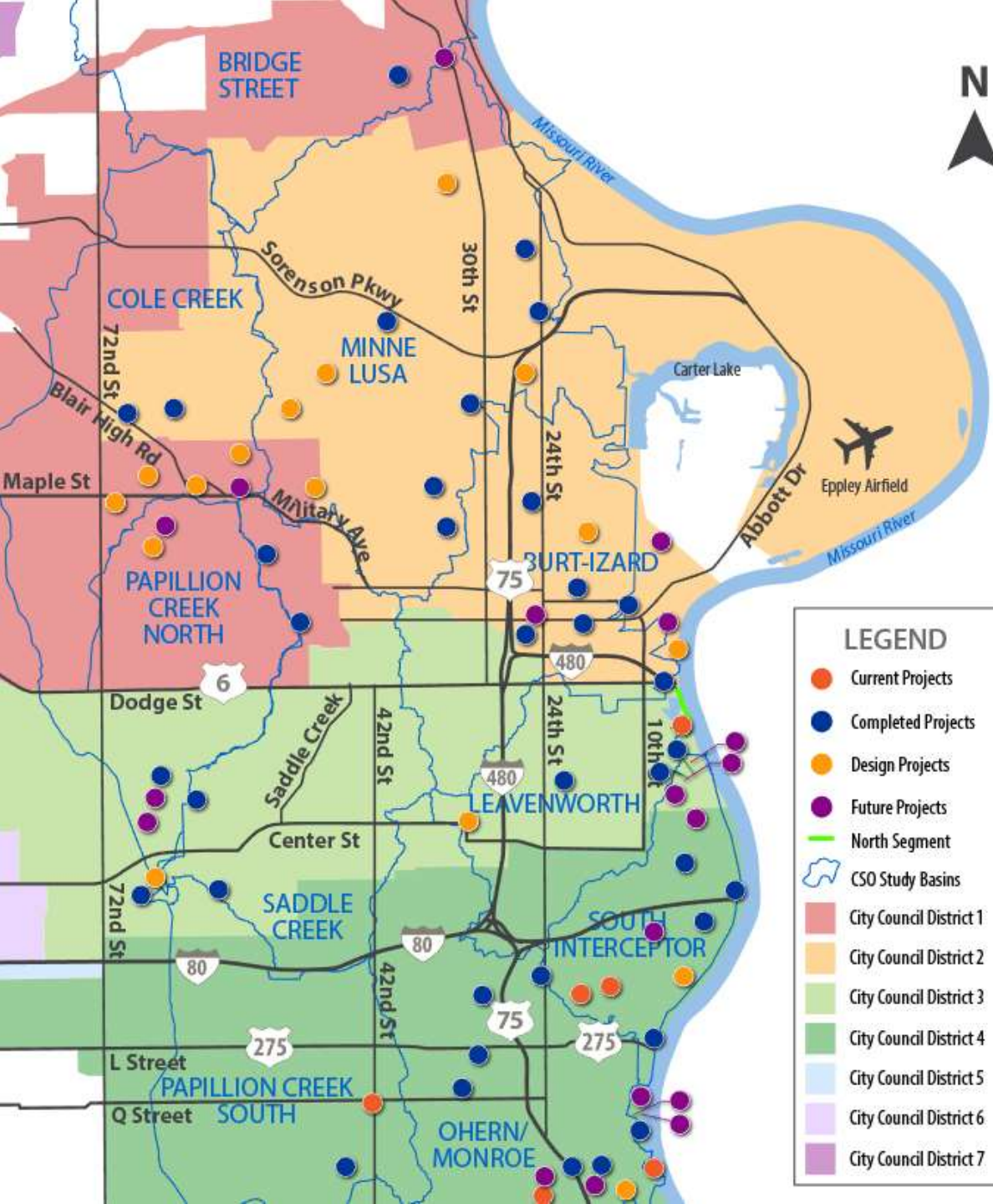
 **19** Future Projects

CSO Projects

A total of **60 projects**, including five system reliability projects, are outlined in the Long Term Control Plan and recent updates to the Program.



CSO Projects



Major Completed Projects

- Aksarben Village Neighborhood Sewer Separation
- Leavenworth Lift Station Replacement
- Missouri River Water Resource Recovery Facility Improvements (Schedule A & B1)
- Missouri Avenue Sewer Separation Phase 1/Spring Lake Park
- South Omaha Industrial Area Force Main & Gravity Sewer Project
- South Omaha Industrial Area Lift Station
- South Omaha Industrial Area Sewer Separation



Projects Underway

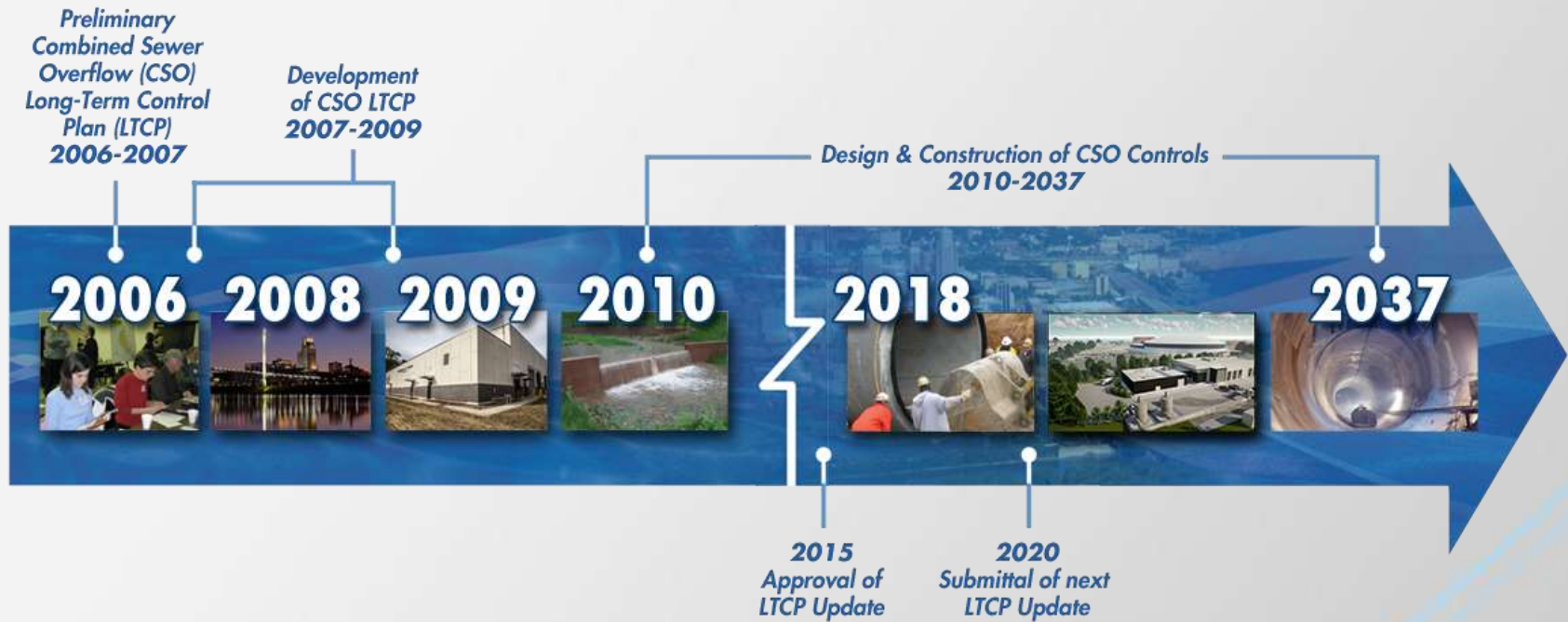
- Burt-Izard Lift Station Improvements
- Cole Creek Sewer Separation (CSO 202, 203 & 204)
- Hanscom Park Green Infrastructure
- Lake James to Fontenelle Lagoon Improvements
- Lake James to Fontenelle Sewer Separation
- Missouri River Water Resource Recovery Facility Improvements (Schedule B2)
- Saddle Creek Retention Treatment Basin
- South Interceptor Force Main



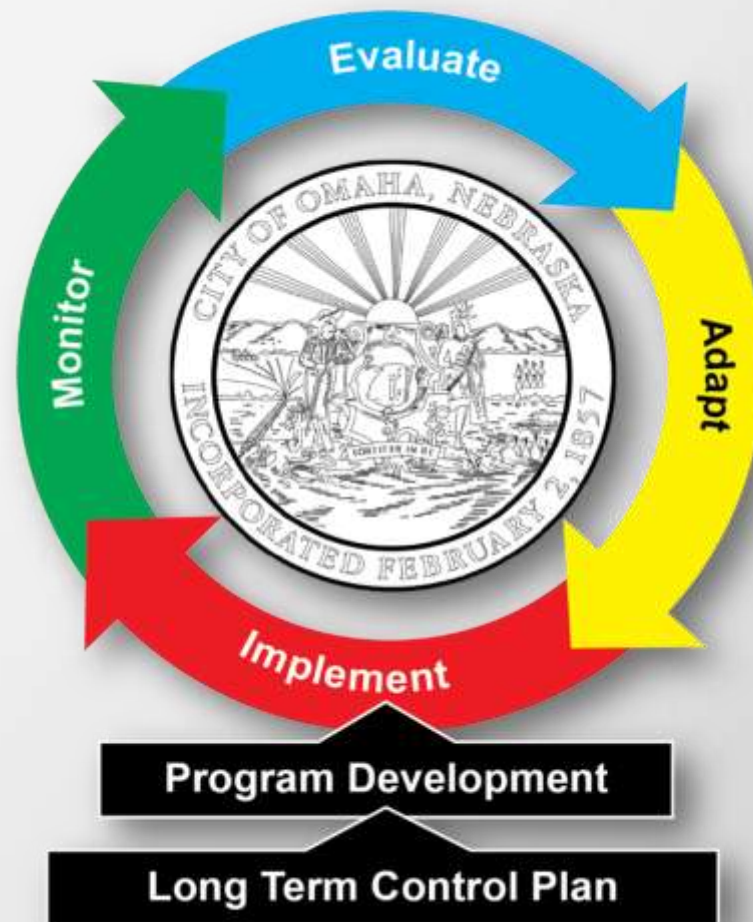
Saddle Creek RTB Facility



CSO Program Timeline



Adaptive Management



Thank you!!

Jim Theiler

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Environmental Services

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