



Plan Ahead to Leverage Safety Grant Funding



Matthew Enders, P.E.

Technical Services Manager, WSDOT Local Programs

October 5, 2022

APWA Washington Chapter – Spokane,

WA



1

WSDOT Local Funding Opportunities

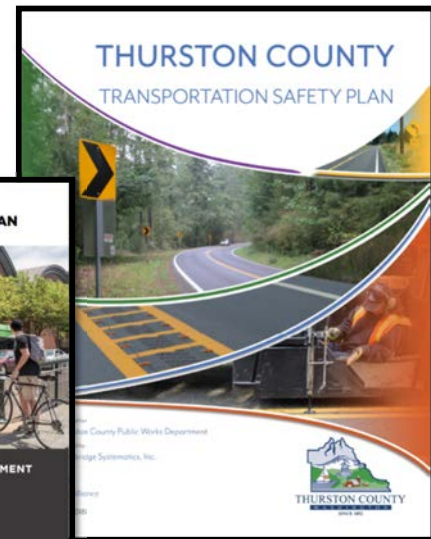
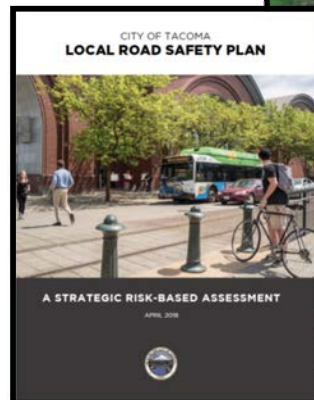
- <https://wsdot.wa.gov/business-wsdot/support-local-programs/funding-programs>
- Highway Safety Improvement Program (HSIP)
 - County Safety Program
 - City Safety Program
 - Rail Safety Program
- Local Bridge Program
- National Highway System Asset Management Program
- Pedestrian & Bicycle Program
- Safe Routes to School Program



2

Local Road Safety Plan Funding Programs

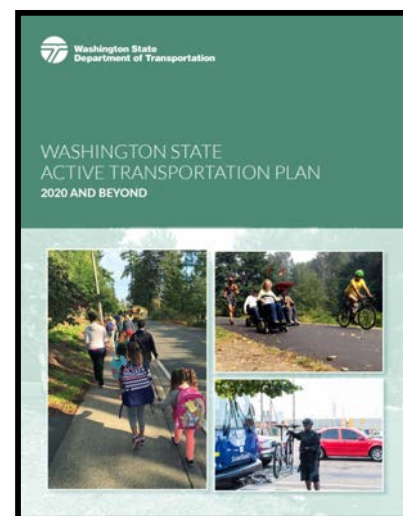
- County Safety Program
- City Safety Program
- Pedestrian & Bicycle Program
- Safe Routes to School Program
- Safe Streets and Roads for All (federal application)



Active Transportation & LRSPs

Pedestrian & Bicycle Program Safe Routes to School Program

- Application review criteria includes safety (up to 40% of score)
- Applications can receive points in the safety category for advancing a LRSP project
 - Where the project location & treatments are listed in the plan



HSIP & LRSPs

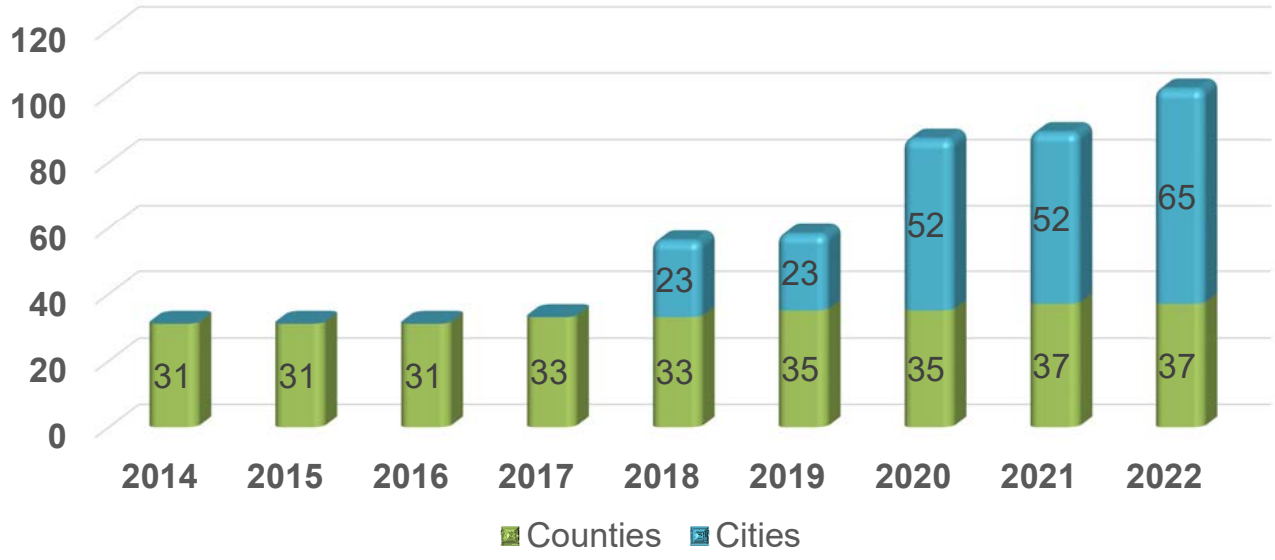
County Safety Program City Safety Program

- Local agencies are required to submit a LRSP as part of the application to be eligible to apply
- County program requirement since 2014
- City program requirement since 2018 (systemic safety projects) & 2020 (all projects)



5

Local Road Safety Plans in Washington by Number of Agencies



6

Local Road Safety Plans in Washington

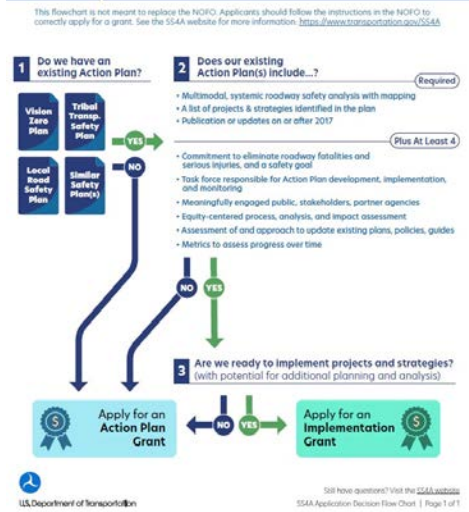
Local Road Safety Plan Step		Plan Element
1	Analyze summary data to identify focus/priorities	List of crash priorities based on data
2	Analyze individual fatal/serious crashes to identify risk factors	Description of risk factors & selection process
3	Select most common risk factors	
4	Analyze roadway network for presence of risk factors	
5	Create prioritized list of roadway locations	Prioritized list of roadway locations
6	Identify countermeasures to address prioritized locations	Description of countermeasures & selection process
7	Develop a prioritized list of projects	Prioritized list of projects



7

Safe Streets and Roads for All (SS4A)

SS4A Safe Streets and Roads for All Application Decision Flow Chart



- 2 Does our existing Action Plan(s) include...? (Required)**
- Multimodal, systemic roadway safety analysis with mapping
 - A list of projects & strategies identified in the plan
 - Publication or updates on or after 2017
- Plus At Least 4**
- Commitment to eliminate roadway fatalities and serious injuries, and a safety goal
 - Task force responsible for Action Plan development, implementation, and monitoring
 - Meaningfully engaged public, stakeholders, partner agencies
 - Equity-centered process, analysis, and impact assessment
 - Assessment of and approach to update existing plans, policies, guides
 - Metrics to assess progress over time



8

Contact Information

Matthew Enders, P.E.
Technical Services Manager
WSDOT Local Programs
matthew.enders@wsdot.wa.gov
[360-705-6907](tel:360-705-6907)



FEHR PEERS

Snohomish County Road Safety Plan

Daniel Dye, PE
Associate Transportation Engineer

FEHR PEERS

Snohomish County Road Safety Plan

- 1,400 crashes on unincorporated Snohomish County roads in 2020, with 50 people killed – nearly one per week
- Acknowledges the irreversible consequences for traffic injuries and fatalities
- Aligned with WSDOT's Target Zero plan
- Data driven systemic safety approach to develop collision reduction strategies
- Multiple agency partners (fire and police first responders, WSDOT, County Council, Health District, Courts)
- Agency partners key in refining a practical, responsive, flexible, and implementable plan

FEHR ↑ PEERS

11

Safe System Approach

- Collective action needed from all stakeholders-from system operators and vehicle manufacturers to first responders and roadway users
- Anticipates and mitigates human mistakes
- Crashes are going to occur-how can we eliminate serious injuries and fatalities
- Five elements must be provided in an integrated manner:
 - Safe road users
 - Safe vehicles
 - Safe speeds
 - Safe roads
 - Post-crash care
- Shifts a major share of the responsibility from road users to road system designers

FEHR ↑ PEERS

12

Collision Data

Figure 3. Collisions by Mode (2010 - 2019)

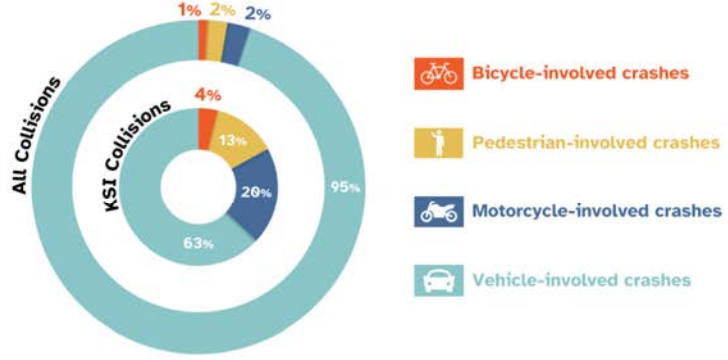


Figure 4. Bicycle, Pedestrian, & Motorcycle-Involved Collisions (2010-2019)

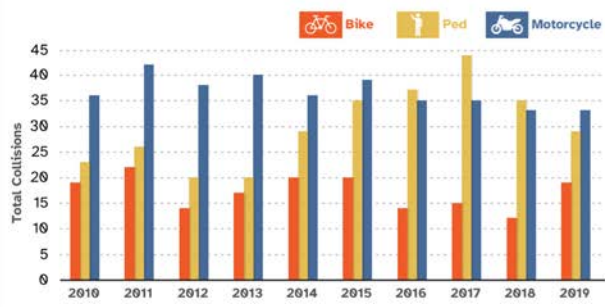
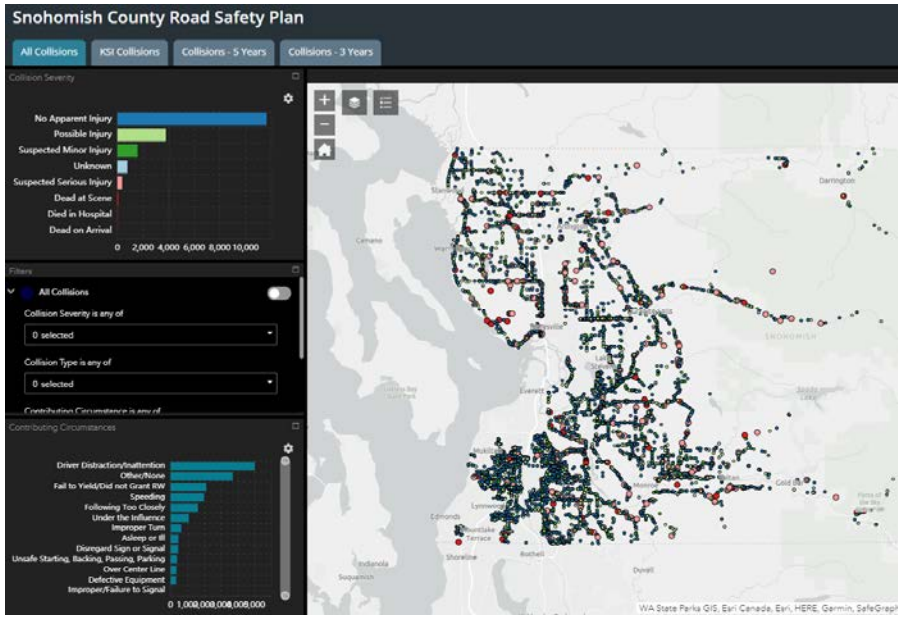


Figure 6. High Injury Network Statistics



Safety Data Dashboard



Crash Profiles and Countermeasures

Fixed Object Roadway Departure 01

Crashes involving roadway departure in rural areas

Urban 0% Rural 100%

Crashes where a driver departed the roadway or hit a fixed object on rural roads.

Crash Profile as a Share of Crashes Countywide

Fixed object and run off the road crashes in rural areas are over-represented in fatal and severe injury crashes in the County.

Crash Type	Share of Crashes
All crashes	17%
KSI	25%
Bicycle	N/A
Pedestrian	N/A
Motorcycle	16%

Notable Statistics Within Crash Profile

Fixed object and run off the road crashes are most common under challenging driving conditions, such as low visibility and curved roadways.

55% of crashes within this profile occur **outside of daylight hours**.

Crash Type	Percentage
All	47%
KSI	69%
Motorcycle	77%

High Effectiveness Countermeasures

- Adding Rumble Strips
- Install a Safety Edge
- Add Paved Shoulder
- Install Post Mounted Delineators (Spot Posts)
- Road Widening in Key Locations for Enforcement
- Install Impact Attenuation Devices at Select Roadside Hazard Locations
- Create or Increase Clear Zone
- Reduce Speed Limits
- Relocate Utility Poles from Clear Zone

Figure 9. Crashes involving roadway departure in rural areas

FEHR PEERS

15

Policy and Program Countermeasures

DUI Prevention 03

Safe Routes to School

Timeline: Ongoing | Context: Countywide

Coordinates Safe Routes to School programs between the different districts in the County with Public Works to leverage common goals and potentially combine efforts for greater funding. SRTS programs typically entail improving route planning, providing parent/teacher education, safety data collection and potentially roadway modifications to ensure safe routes for all students, particularly students in underserved areas.

Lead Agencies

- Public Works
- School Districts
- County Planning and Development Services

Partner Agencies

- Community-Based Organizations
- Public Library Systems
- Police or Sheriff's Office

Best Practices Resources

- Safe Routes Partnership Best Practices, Curriculum

CRP/Effectiveness

CTW (Countermeasures that Work) Rating: □□□□□

- Safe Routes to School

12% reduction in crashes around schools where improvements are made (EMF Clearinghouse)

Safe System Element

Safe Routes

Crash Type

Run-Off Road, Fixed Object, Roadway Departure, Entering of Angle

Crash Profile

Urban, Rural, Interstate, Major Road, Minor Road, Local Road

Special Considerations

Equity

Funding Sources

- Safe Routes to School Funding
- Road Funds

Pair with

- Education & Public Awareness Campaigns
- DUI Deterrence
- DUI Prevention
- State Policy on Enforcement Cameras
- Placemaking in Traffic Safety Initiatives
- Safe Speeds Education Campaign
- Neighborhood Slow Zones
- Education Campaign for Youth
- Educate Businesses on HTS
- Driver Re-Education Course
- Safe Routes to School
- Enforcement Priorities Mandate

Lead Agencies

- Sheriff's Office
- Public Works
- County Human Services Behavioral Health Division
- Prosecutor's Office

Partner Agencies

- Chambers of Commerce
- Community-Based Organizations (medical offices/organizations)
- Local Police Departments
- County DUI and Target Zero Task Force State Highway Patrol

Best Practices Resources

- Behavior Change Campaigns to Improve Traffic Safety Toolkit
- Countermeasures that Work, 9th Edition

CRP/Effectiveness

CTW (Countermeasures that Work) Rating: □□□□□

- Alcohol Screening and Brief Intervention

Safe System Element

Safe Routes, Safe Road Users, Safe Speeds, Safe Actions

Crash Type

Fixed Object, Pedestrian, Roadway Departure, Entering of Angle, Vehicle Overturned, Left Turn, Road Block, All Other, Rear End, Bicycle, Side-swipe, Parking Related, Right Turn

Crash Profile

Urban, Rural, Interstate, Major Road, Minor Road, Local Road

Special Considerations

Education, Emerging Technology, Equity

Funding Sources

- Washington Traffic Safety Commission Grants

Pair with

- Education & Public Awareness Campaigns
- DUI Deterrence
- DUI Prevention
- State Policy on Enforcement Cameras
- Placemaking in Traffic Safety Initiatives
- Safe Speeds Education Campaign
- Neighborhood Slow Zones
- Education Campaign for Youth
- Educate Businesses on HTS
- Driver Re-Education Course
- Safe Routes to School
- Enforcement Priorities Mandate

FEHR PEERS

16

Project Prioritization Tool

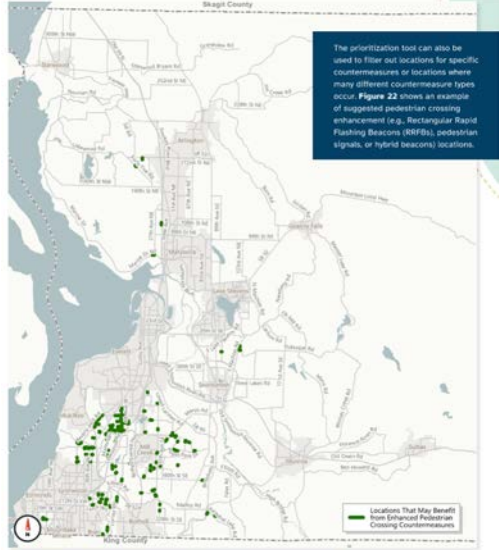


Figure 22. Potential Enhanced Pedestrian Crossing Countermeasure Locations



Figure 19. Prioritizing Quick-Win Countermeasures on the HIN

17

Contact Info

Daniel Dye, PE
 Associate Transportation Engineer
 Fehr & Peers
d.dye@fehrandpeers.com
 253.343.0165



18