

# Project Briefing

Public Open House  
Menard Sports Center  
March 3, 2011

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## Parks Highway Alternative Corridor Project



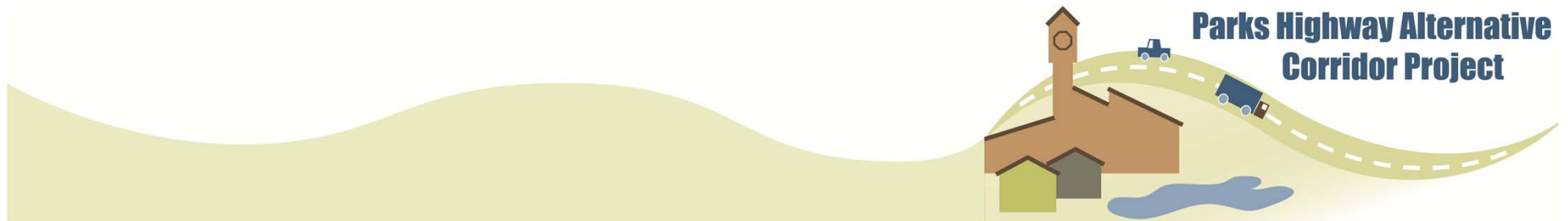
# Project Purpose

Investigate the possibility of a cost-effective alternative corridor for the Parks Highway in the Wasilla area that minimizes negative impacts.



# Background

- City of Wasilla early support for concept.
- Initial 4-party agreement between City of Wasilla, Mat-Su Borough, the Alaska Railroad and DOT&PF to develop road-rail project.
- Now 3-party agreement for a controlled-access highway to supplement the Parks Hwy.
- Planning effort currently underway.
- Preliminary recommendations in 2011.



# Background: Prior Work

- 1992 Parks Highway Location Study (1992)
- 1996 Parks Highway: Glenn Highway to Lucas Rd EA (DOT&PF)
- 1997 Knik-Fairview Comprehensive Plan (MSB)
- 2002 Wasilla ARRC Relocation Study (City of Wasilla) rail only
- 2005 Wasilla Realignment Study (ARRC) rail only
- 2005 OS&HP: Short Range Recommendations through 2015 (City of Wasilla)
- 2007 Mat-Su Long Range Transportation Plan (MSB)
  - Increasing congestion on Parks Highway, especially in Wasilla
  - Traffic modeling: Parks Highway too congested without a alternative
  - 2-lane, limited access alternative from approximately Seward Meridian to Big Lake Road



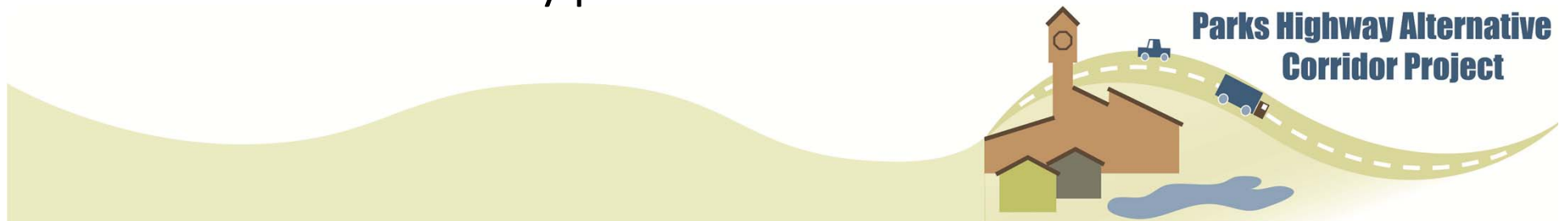
# Project Objectives

- Research project study area
- Involve Mat-Su public and stakeholders in project planning
- Develop multiple possible corridors
- Determine whether the benefits of alternative routes exceed the costs
- Recommend preferred corridor and subsequent actions



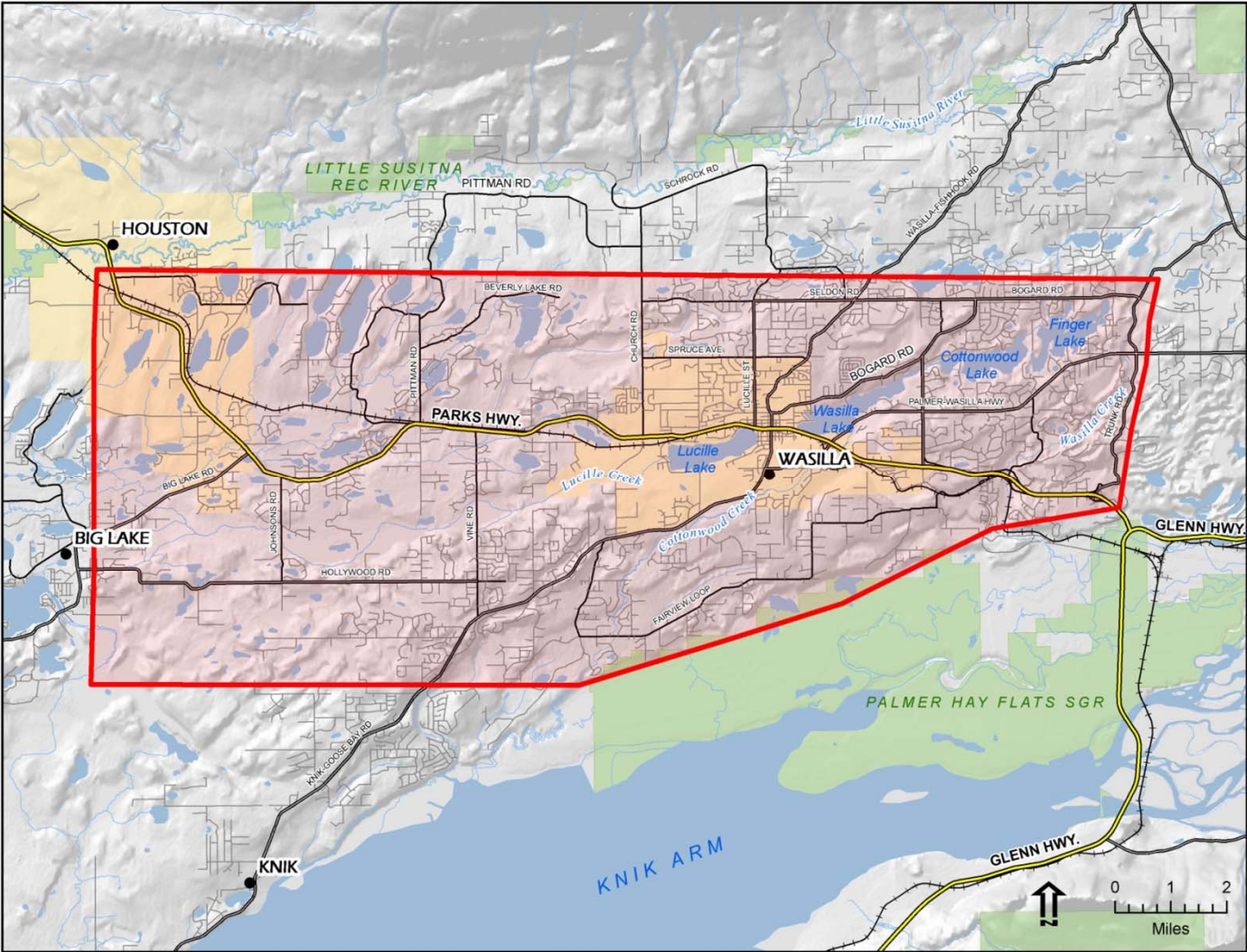
# Project Area Revision

- Review of three basic factors
  - Higher density residential and commercial development north of Parks Highway
  - “Chain of lakes” extending northeast of Wasilla
  - Lakes and wetlands in Meadow Lakes area west of Wasilla
- No evidence of a viable corridor emerging north of the Parks Highway with similar level of impacts as corridors to the south.
- Additional public dialog and process for area north of Parks Highway will consume project resources for little likely benefit.
- Public dialog and process for area north of Parks Highway will create unnecessary public concern.

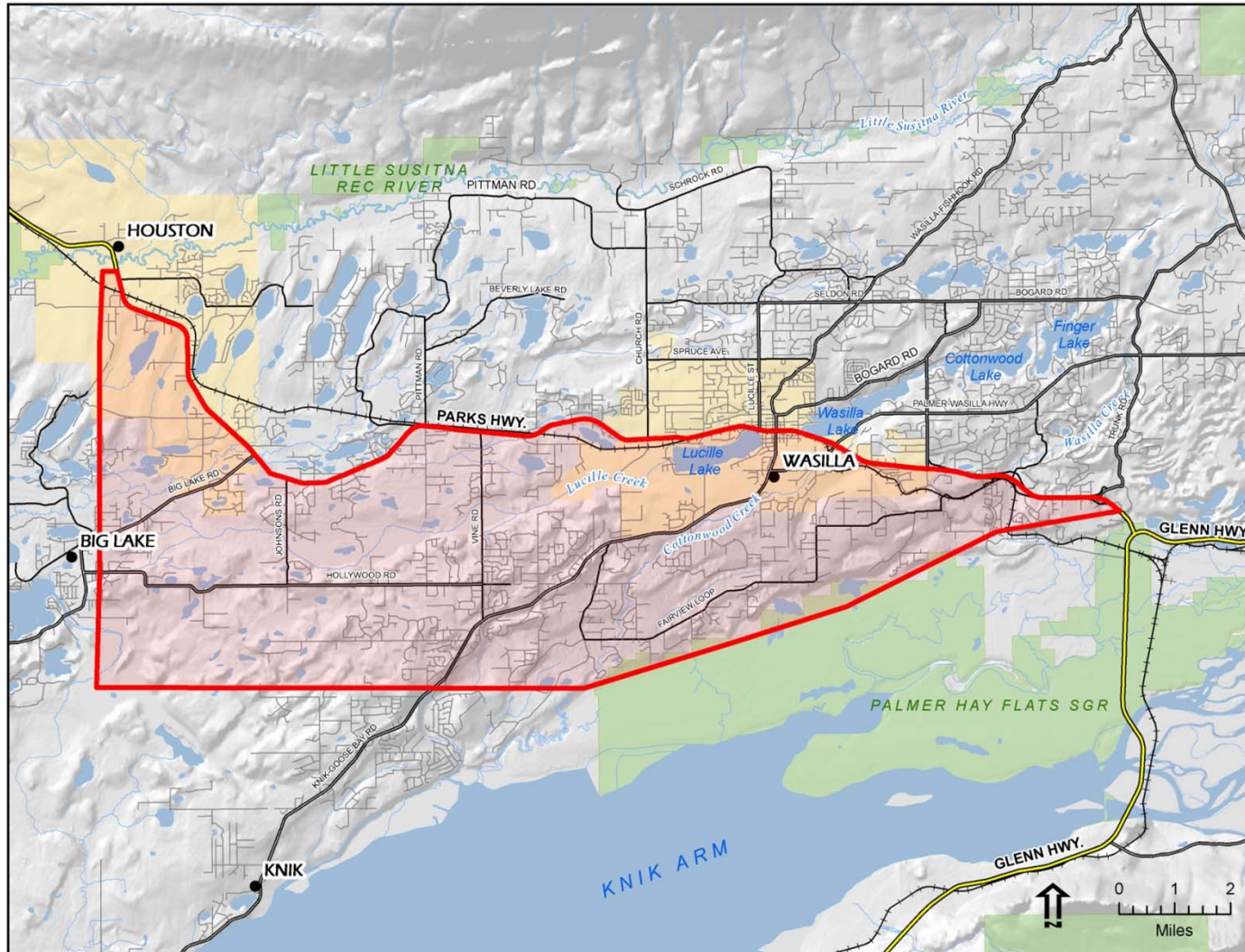




# Original Project Study Area



# New Project Study Area





# Phase I Recap

- Technical Memos
  - Issues and Problem Definition Memo
    - Describes issues related to the Wasilla Multimodal Corridor Project and defines key project-related potential problems.
  - Project Definition Memo
    - Documents the corridors and alternatives considered in previous studies.
    - Evaluates the corridors relative to the issues and problems identified.
    - Identifies corridors that meet likely purpose and need elements.
    - Outlines a strategy for advancement of the project.



# Project Research

- 1 Demographic and Socioeconomic Data
- 2 Public Facilities and Utilities
- 3 Land Use Characteristics
- 4 Freight Movements
- 5 Planned and Programmed Capital Improvements
- 6 Wetland Resources
- 7 Recreational Resources
- 8 Cultural Resources
- 9 Hazardous Materials Sites
- 10 Streams
- 11 Wildlife Resources
- 12 Bird Resources



# 1 -Demographic and Socioeconomic Data

- **MSB rapid growth:** 40,000 in 1990, 60,000 in 2000 and 85,000 in 2008
- **Study area rapidly growing:** Wasilla growth 30%, areas nearby more rapid
- **Less ethnically diverse,** slightly older than Alaska as a whole
- Per capita **income** varies above or below state average (\$22,660) depending on the place (2008)
- Study area includes about **24%** of Borough population
- Knik-Fairview CDP is the **most populous non-incorporated area** of the state. Would be Alaska's 4<sup>th</sup> largest city.
- **32%** of MSB workers are employed in Anchorage



# 3 – Land Use

Fraction of study area uses:

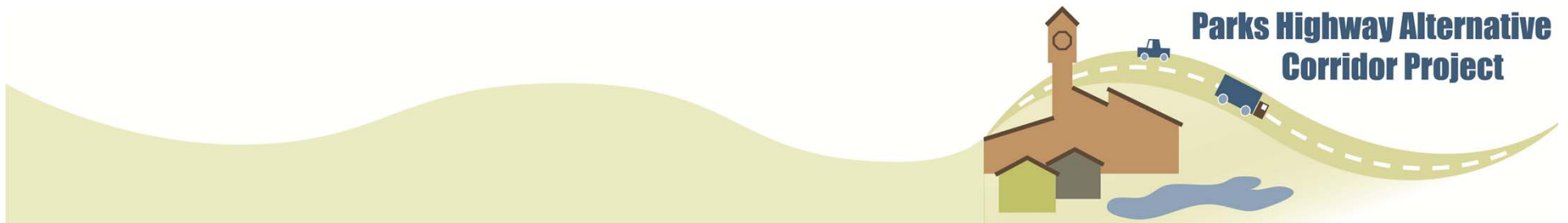
- 65.59% unimproved
- 31.42% residential
- 1.22% commercial
- 0.33% industrial
- 0.04% public facilities
- 0.03% recreation
- 0.03% agriculture



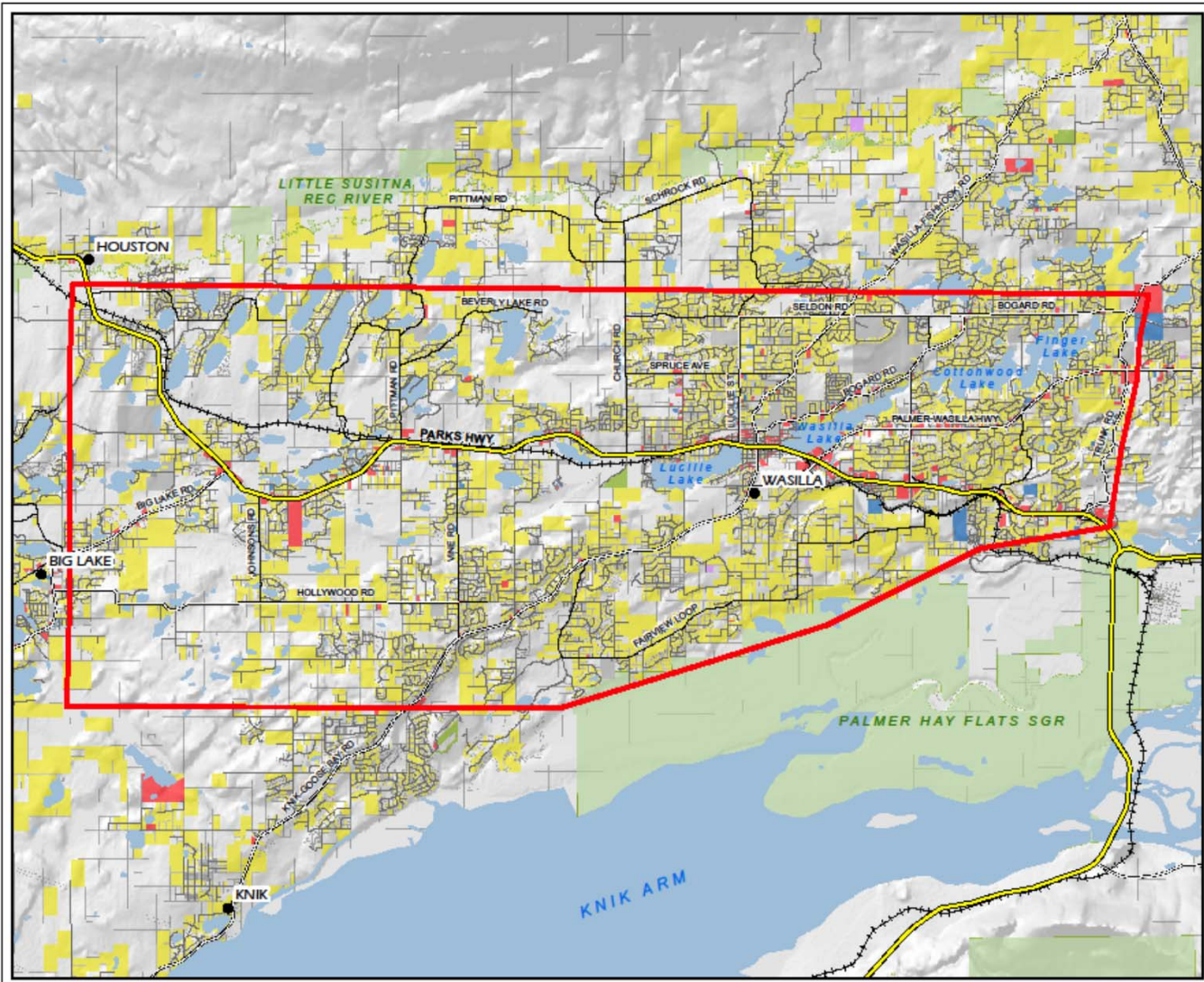
# 3 – Land Use

Ownership of vacant lands in study area:

- 55% private
- 9% native corporation
- 8% borough
- 3% state
- 2% city
- 2% university
- 1% mental health







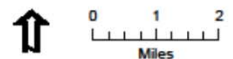
# Mat-Su Controlled Access Corridor

## LAND USE

### LEGEND

- Land Use
- Residential
  - Commercial
  - Industrial
  - Public
  - Recreation
  - Agriculture
  - Vacant
- Project Area  
 Highway  
 Major Rd.  
 Medium Rd.  
 Minor Rd.  
 Railroad  
 Park or Refuge

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Date: October 20, 2009  
 Projection: Alaska State Plane Zone 4, NAD 83  
 Author: HDR Alaska, Inc.  
 Sources: ADN, MSB GIS, HDR Alaska, Inc.

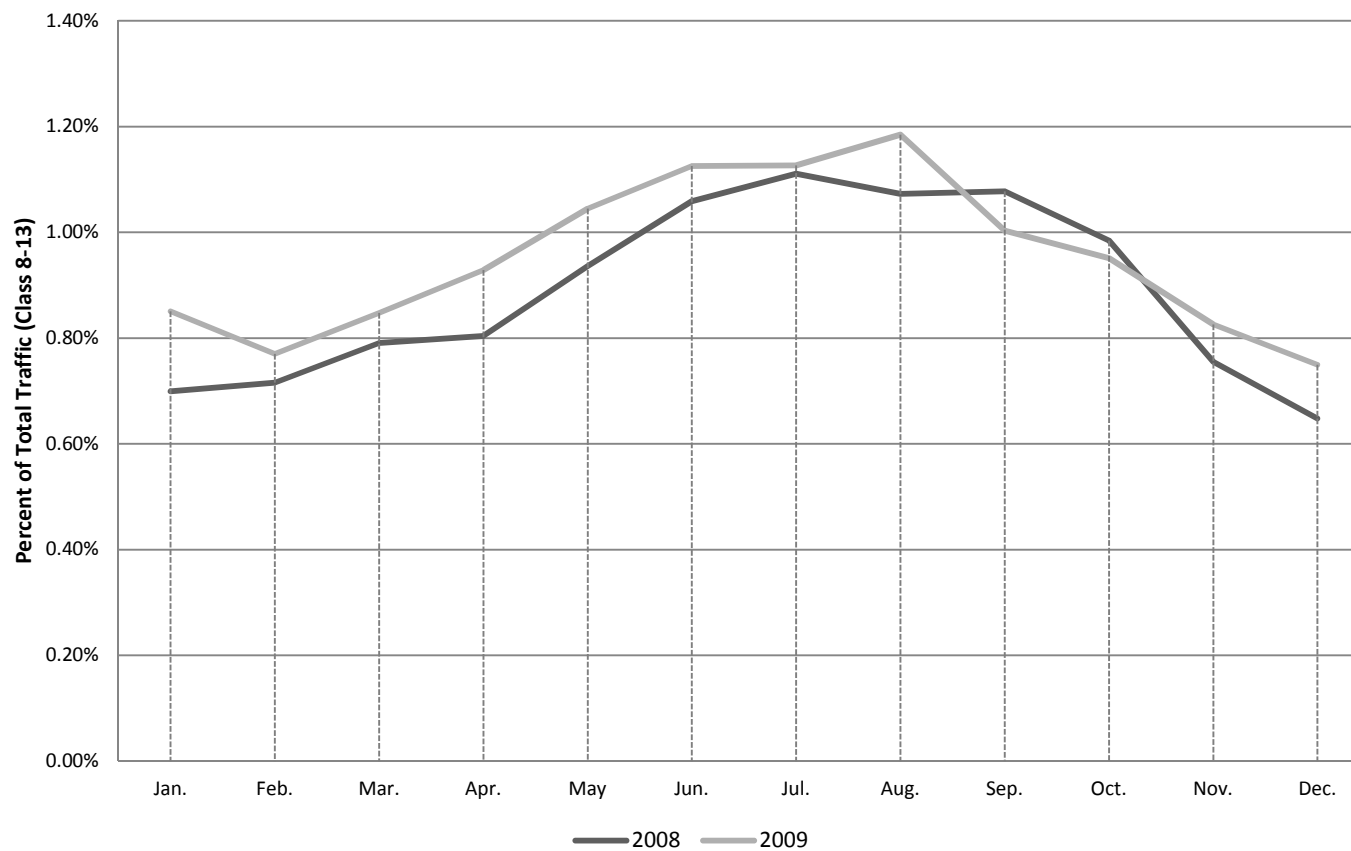
# 4 – Freight Movement

Freight movement through study area:

- Growth in container and trailer movement from Anchorage north. Average increase of 2.5 percent per year.
- Oilfield freight to North Slope will stay level for the next ten years.
- Crude oil, wood products, and rock and aggregates will not contribute.
- Coal from Wishbone Hill could be new truck traffic through study area.
- Gas pipeline construction traffic on the Parks Highway would be significant.



Figure 2: Single Trailer and Multi-Trailer Trucks - Percent of Total Traffic



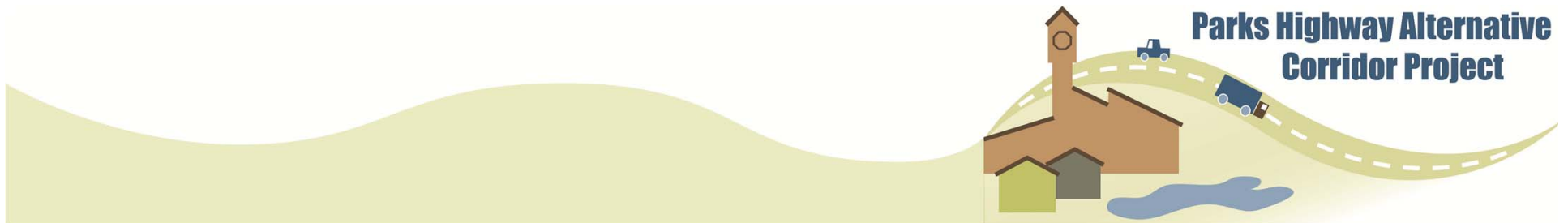
# 5 – Transportation Improvements

- Road
  - Parks Highway upgrade to 4 lanes: Lucas to Big Lake
  - Clapp-South Mack connection
  - Knik-Goose Bay upgrade to 4 lanes
  - Main/Yenlo couplet
  - Fairview Loop upgrade
  - Many more
- Rail
  - Port Mac extension
- Marine
  - Port Mac improvements
  - Port Mac - Anchorage ferry

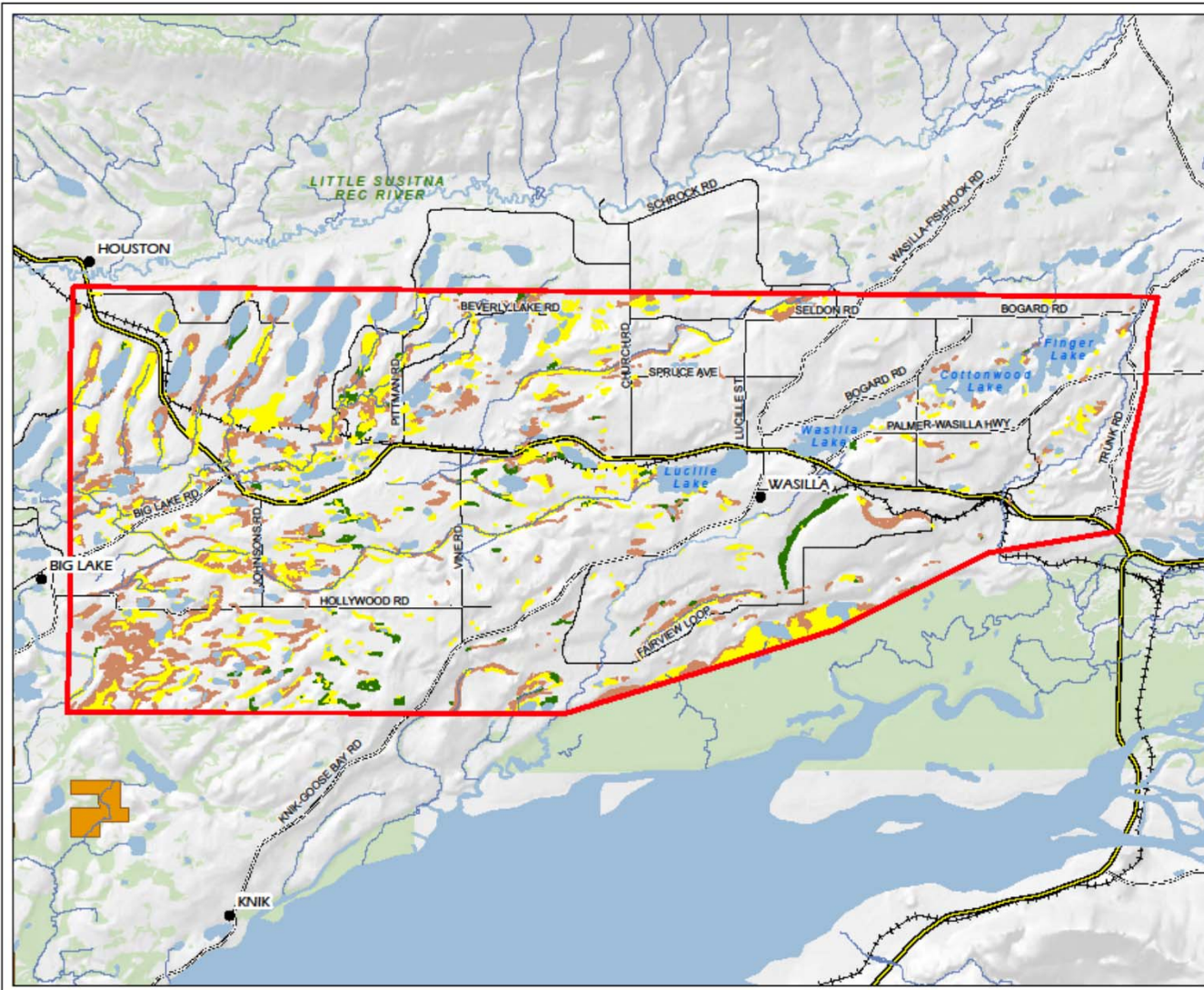


## 6 – Wetland Resources

- Existing mapping used for research; ground verification needed for specific routes
- 18-19,000 acres of wetland in study area
- Functional assessment of study area wetlands complete – new detailed mapping available







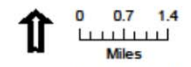
## Mat-Su Controlled Access Corridor

### Wetlands

### LEGEND

- Project Area
- Mapped Wetlands (NWI)**
- Emergent Wetlands
- Scrub-Shrub Wetlands
- Forested Wetlands
- Streams
- Waterbodies
- MSB Wetland Bank

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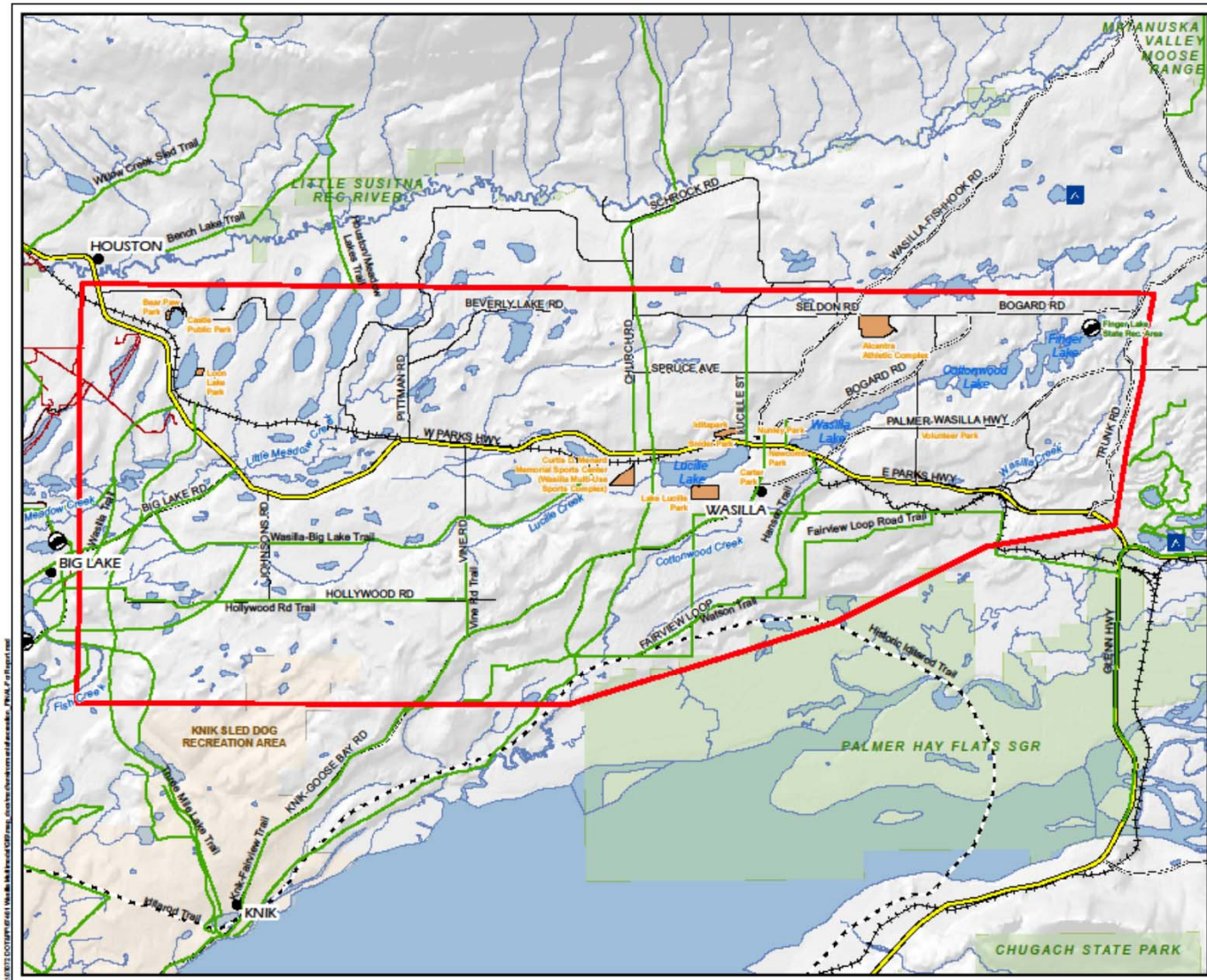
Date: July 20, 2009  
 Projection: Alaska State Plane Zone 4, NAD 83  
 Author: HDR Alaska, Inc.  
 Sources: USFWS, MSB GIS, HDR Alaska, Inc.

# 7 – Recreational Resources

- Palmer Hay Flats on southern boundary
- Six anadromous streams
  - Meadow Cr
  - Little Meadow Cr
  - Fish Cr
  - Lucille Cr
  - Cottonwood Cr
  - Wasilla Cr
- City and Borough parks and recreation areas
- Public parks, recreation areas, wildlife refuges, historical sites protected under 4(f)



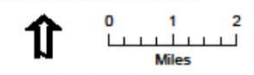




# Mat-Su Controlled Access Corridor RECREATIONAL AREAS

- ### LEGEND
- Project Area
  - Boat Launch
  - Campground/Boat Ramp
  - Campground
  - Multiuse Trail
  - Snowmachine Trail
  - Iditarod Trail
  - City and Borough Parks
  - Knik Sled Dog Rec. Area
  - Park or Refuge

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Date: September 14, 2009  
 Projection: Alaska State Plane Zone 4, NAD 83  
 Author: HDR Alaska, Inc.  
 Source: ADNIR, MSB GIS, HDR Alaska, Inc.

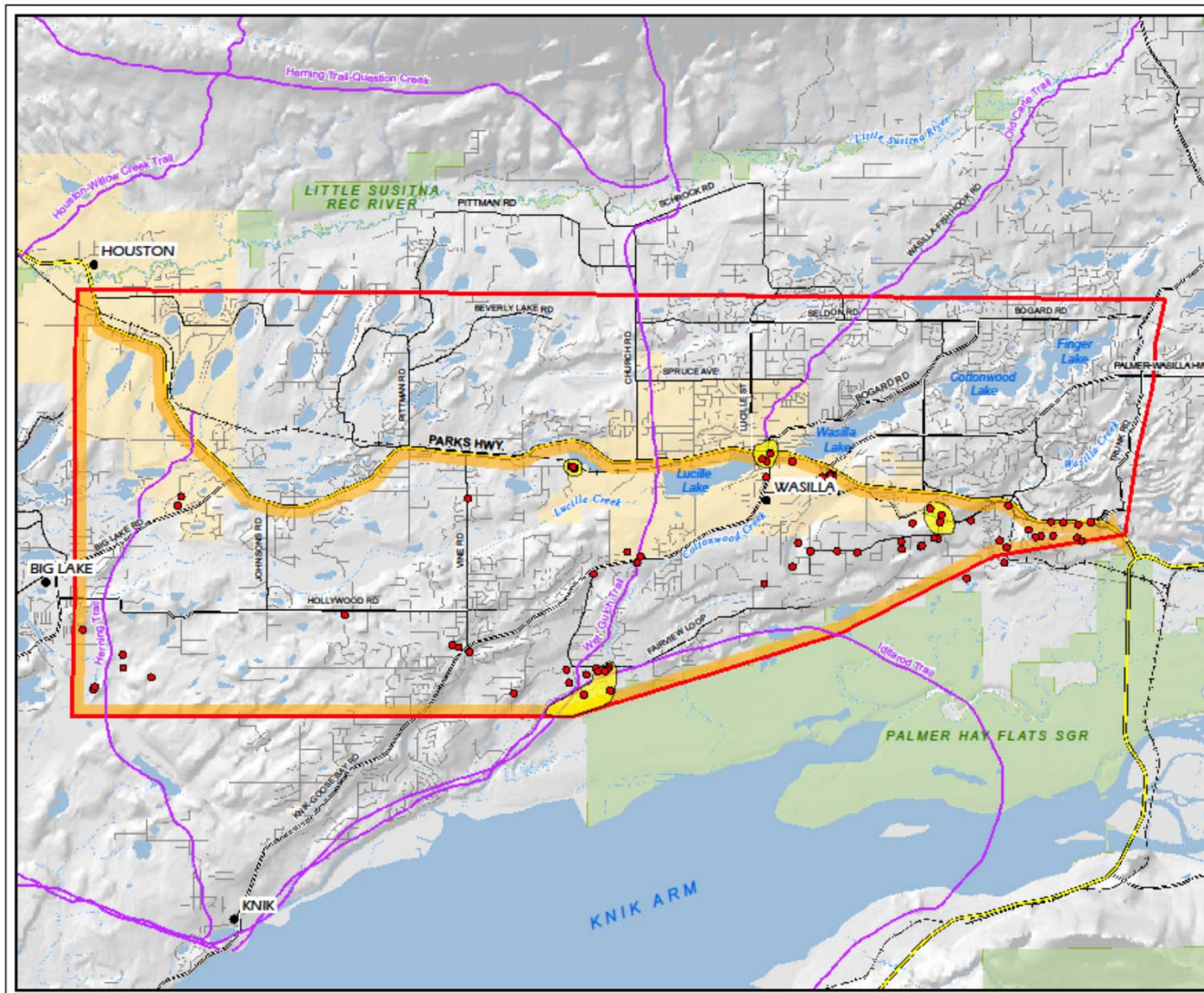
SOURCE: COURTESY OF THE MAT-SU BOROUGH OF WASILLA AND THE CITY OF BIG LAKE. COURTESY OF THE CITY OF PALMER AND THE CITY OF KNIK.

## 8 – Cultural Resources

- Pre-historic and historic sites
- Area occupied for past 8,500 years
- Several buildings dating to founding of Wasilla still standing
- 93 cultural resources recorded between Parks Hwy and south study area boundary
- 6 sites on National Register of Historic Places
- 78 sites not yet evaluated for eligibility







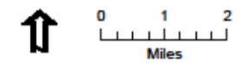
## Mat-Su Controlled Access Corridor CULTURAL RESOURCES

### LEGEND

- AHRS Site
- Area Containing National Register Determined Eligible and/or Listed Sites
- Historic Trails
- Cultural Resources Search Area
- Project Area
- +— Railroad
- Park or Refuge
- City Boundary



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Date: September 22, 2009  
 Projection: Alaska State Plane Zone 4, NAD 83  
 Author: HDR Alaska, Inc.  
 Source: SHPO, ADNR, MSB GIS, HDR Alaska, Inc.

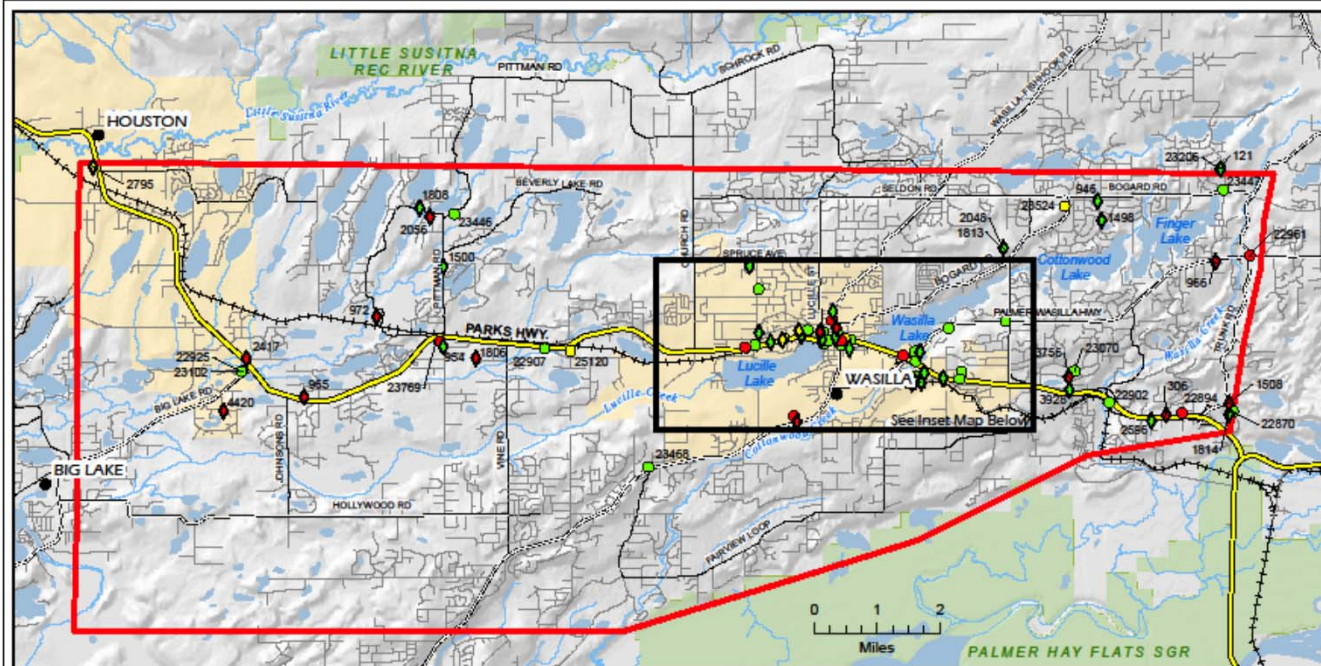


# 9 – Hazardous Sites

- Identify location of documented hazardous waste sites
- Specific corridor location may require on-site investigation
- Environmental Site Assessment may be required for specific sites



**Mat-Su Controlled Access Corridor**  
**FIGURE 1: LUST AND CONTAMINATED SITES**



**LEGEND**

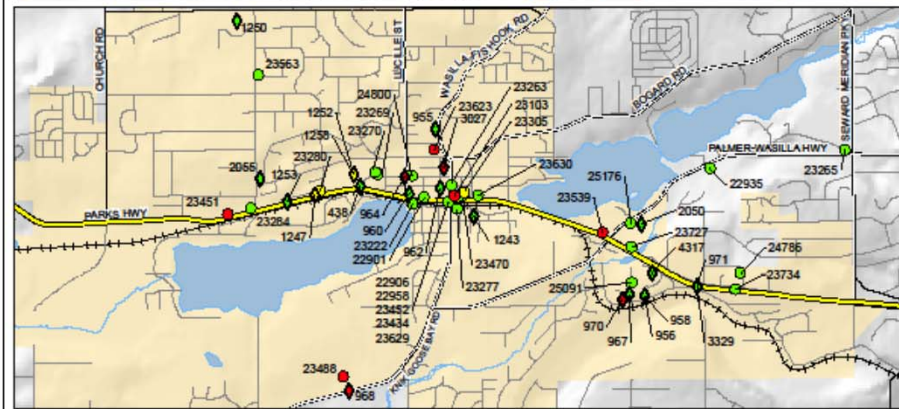
**Contaminated Site Status**

- ◆ Active
- ◆ Cleanup Complete
- ◆ Cleanup Complete / Institutional Controls

**LUST Site Status**

- Active
- Cleanup Complete
- Cleanup Complete / Institutional Controls

- ▭ Project Area
- Highway
- Major Rd.
- Medium Rd.
- Minor Rd.
- ++ Railroad
- Park or Refuge
- City Boundary



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Date: November 20, 2009  
 Projection: Alaska State Plane Zone 4, NAD 83  
 Author: HDR Alaska, Inc.  
 Sources: Shannon & Wilson (2009), ADNRMIS GIS, HDR Alaska, Inc.



# 10 - Streams

## Anadromous Fish Streams in Study Area

Stream	Species at Mouth	Species at Upper Extent
Meadow Creek	CHp, COp, Pp, Ss	CHp, COs, Pp, Ss
Little Meadow Creek	CHp, COs, Pp, Ss	COr, Ss
Fish Creek	CHp, COp, Kp, Ps, Sp	CHp, COsr, Ks, Pp, Ss
Lucile Creek	COr, Sp	COr
Cottonwood Creek	COp, Sp	COsr
Wasilla Creek	CHsr, COsr, Ksr, Sp	COsr

**Species:** CH = Chum Salmon, CO = Coho Salmon, P = Pink Salmon, K = Chinook Salmon, S = Sockeye Salmon

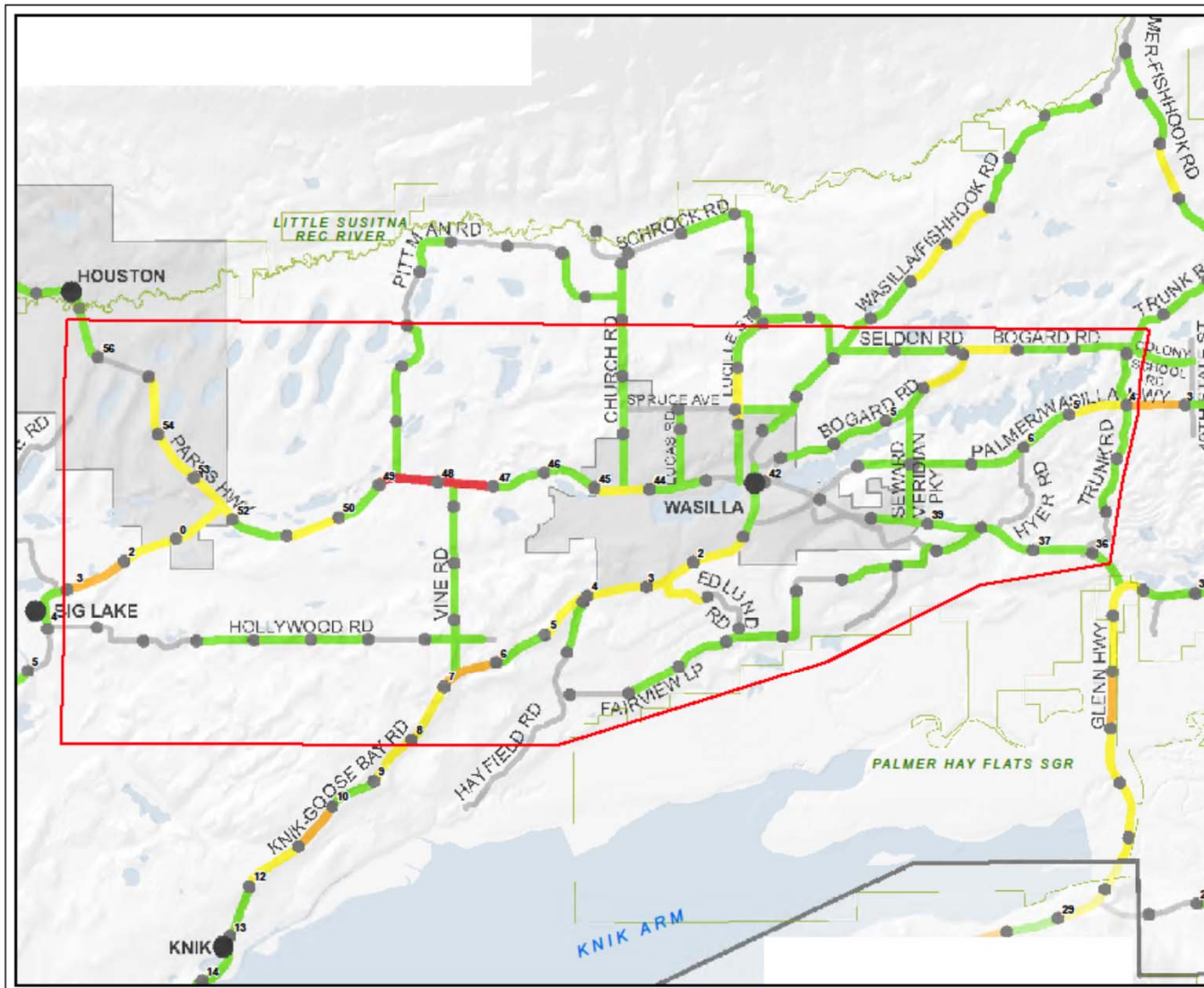
**Life Stages:** p = present, r = rearing, s = spawning

# 11 – Wildlife Resources

- GIS-based delineation of vegetation cover types or habitat types needed
- Fish-bearing waters and riparian corridors get significant use by brown and black bears
- Wildlife crossing corridors should be identified and considered for mitigating impacts
- Further analyses of available moose strike data needed
- Alignment alternatives that intersect a larger number of drainages are likely to have a greater impact on moose populations







## Mat-Su Controlled Access Corridor

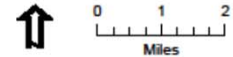
FIGURE 2  
VEHICLE-MOOSE COLLISIONS

### LEGEND

Moose Collisions per Mile from 2001 - 2005

- No Collisions or No Data
- Light Green 1 - 4
- Yellow 5 - 8
- Orange 9 - 12
- Red > 13
- Milepost
- City Location
- Red Box Project Area
- Grey Box City Boundary
- Yellow Box Park or Refuge
- Blue Water Bodies

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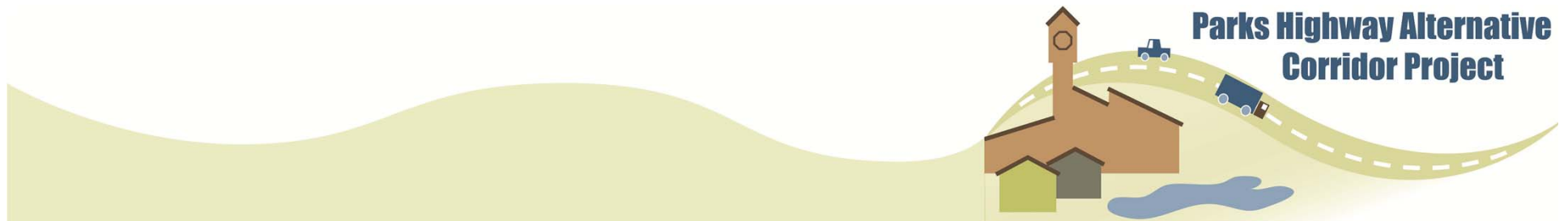


Date: October 2, 2009  
 Projection: Alaska State Plane Zone 4, NAD 83  
 Author: HDR Alaska, Inc.  
 Sources: ADOT&PF, MSB GIS, ADNR, HDR Alaska, Inc.



# 12 - Birds

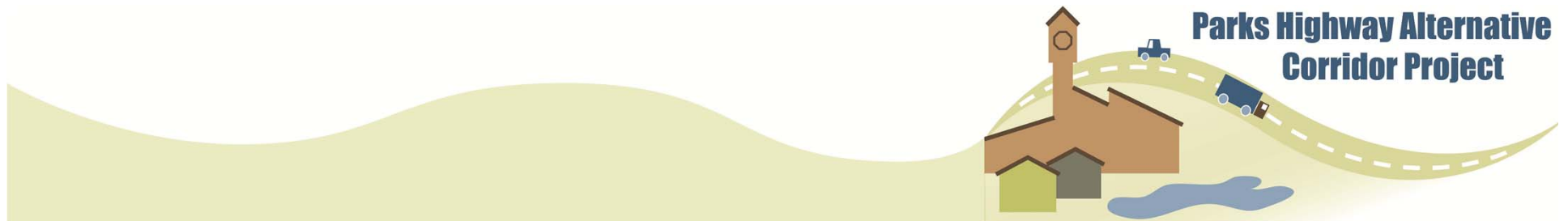
- Each alternative corridor that is considered should be surveyed to determine the presence of bald eagle and other raptor species nests.
- A detailed vegetation map for the study area is necessary to delineate key habitats for migratory birds.
- Breeding bird surveys should be conducted along the selected corridor to assist in the development of detailed bird habitat use associations.



# Project Financing

## Project Financing White Paper:

- Reviewed the MSB Parks Highway Alternative Corridor project
- Discussed the typical financing approaches used in Alaska
- Assessed all of the credible funding sources potentially available to the project
- Developed a framework for future evaluation of financing approaches
- Recommended using State funds for the project



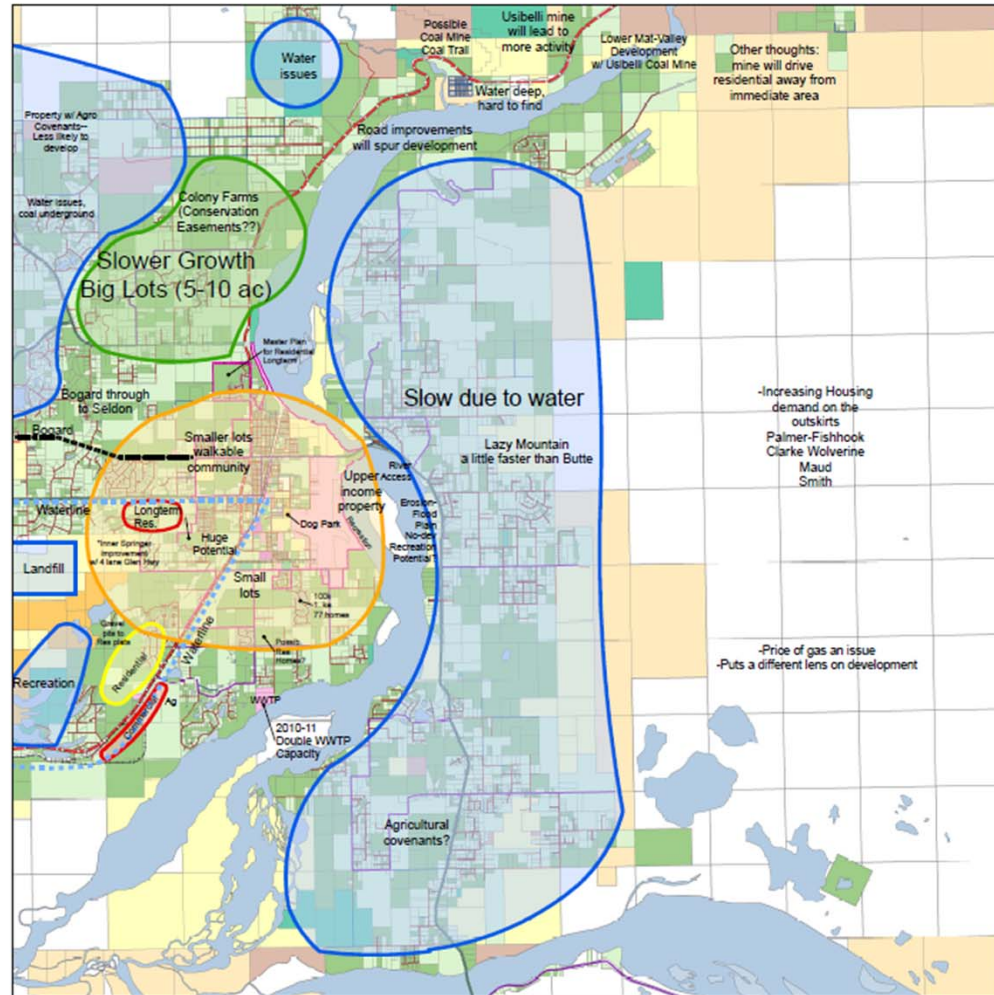
# MSB Growth Workshop

August 12, 2010

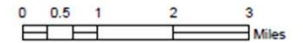
- Purpose: to learn more about future residential and commercial development and its likely location
- Attended by 27 private and public sector representatives knowledgeable of local development
- Input obtained through small group discussions, a large group discussion, and on comments sheets
- MSB Planning reviewed and concurred with results



# Workshop Results - Palmer



## Matanuska-Susitna Borough PALMER BASE

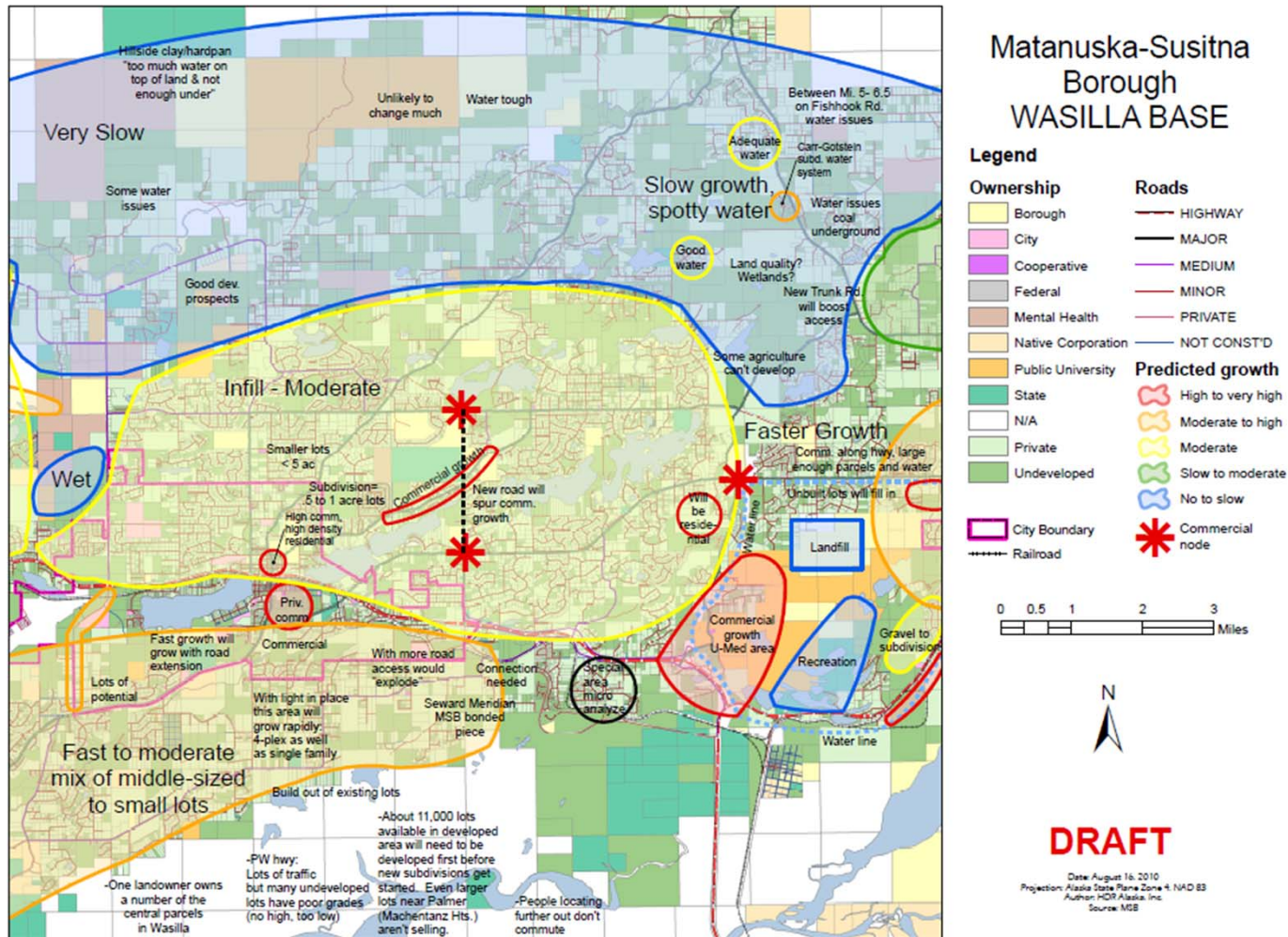


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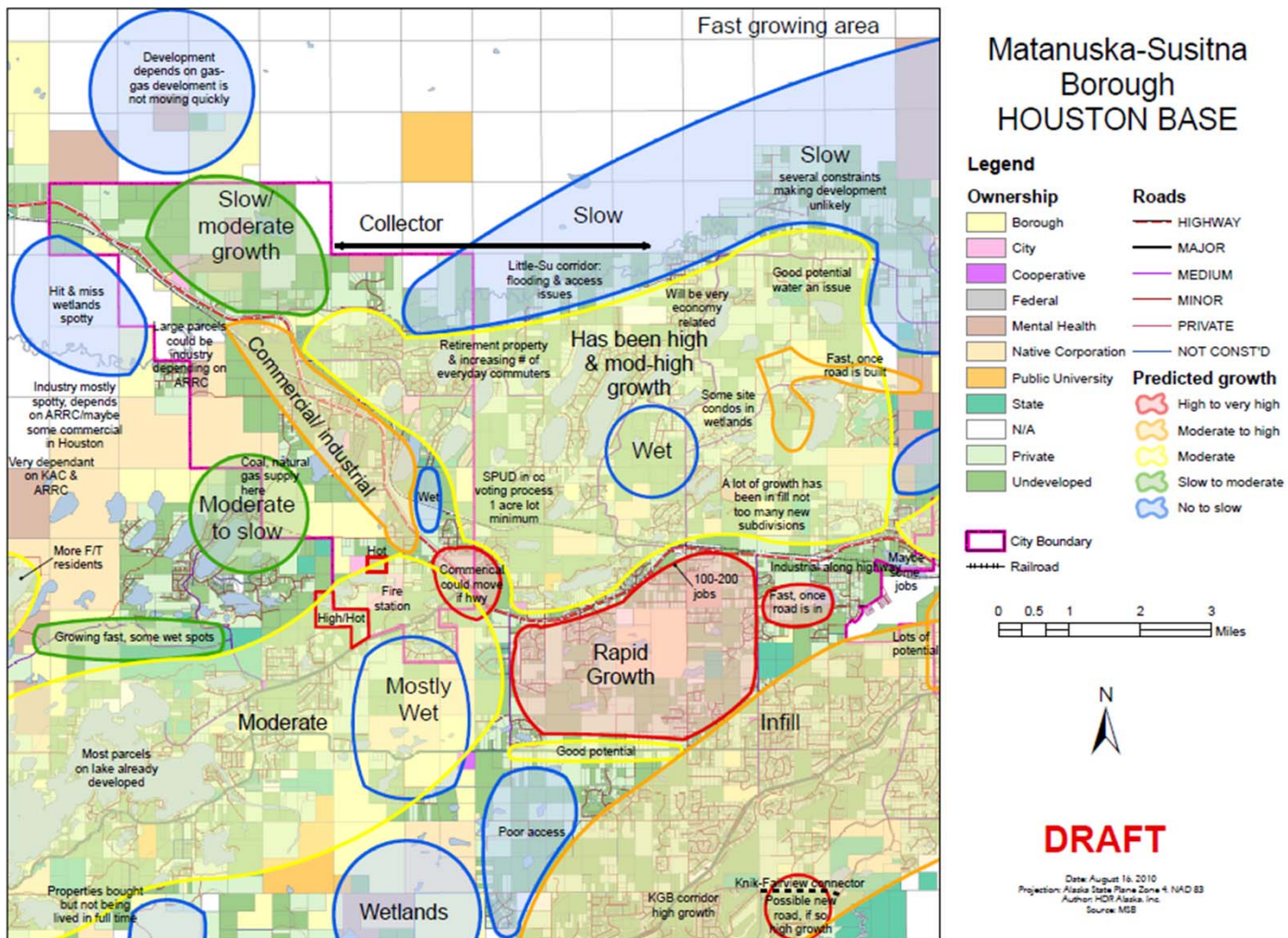
Date: August 16, 2010  
 Projection: Alaska State Plane Zone 4, NAD 83  
 Author: HDR Alaska, Inc.  
 Source: MGB



# Workshop Results - Wasilla

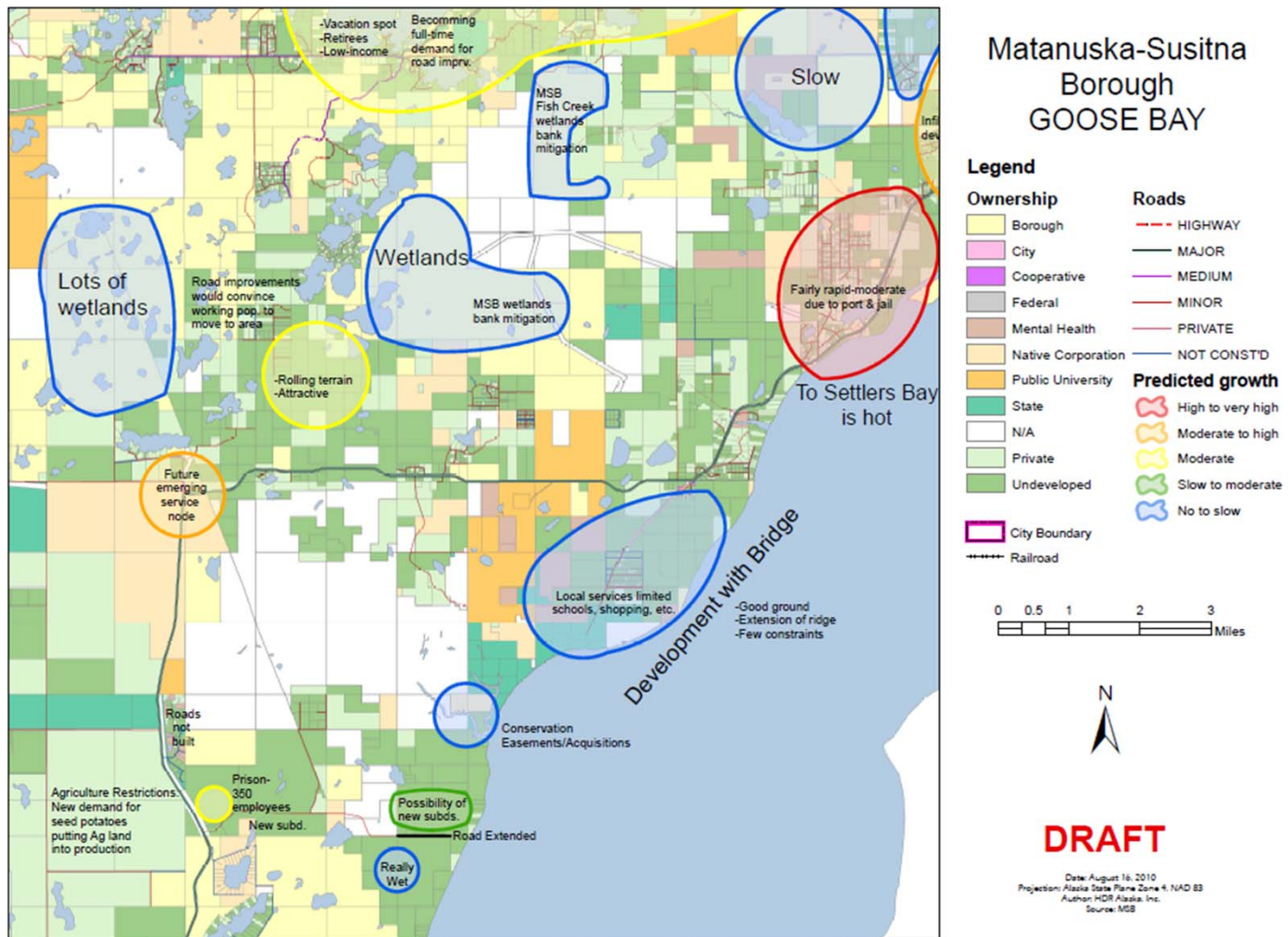


# Workshop Results - Houston



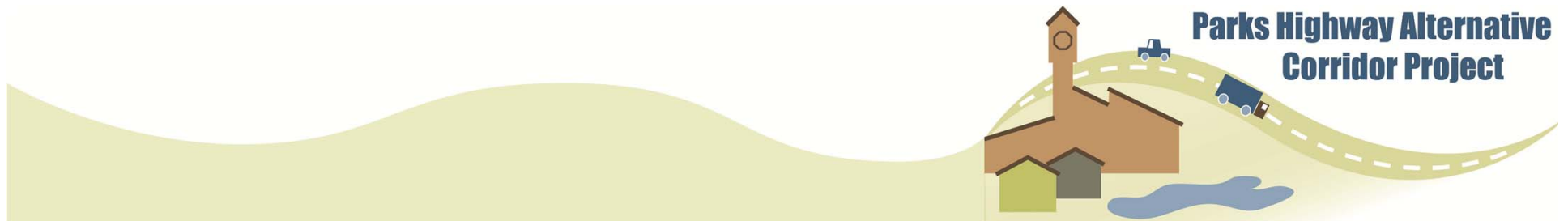


# Workshop Results – Goose Bay



# Update of Traffic Model

- Divide developed area into analysis zones
- Use results of growth workshop to predict residential and commercial development by zone
- Use ISER/DOL&WD population projections
- Analysis zone population & employment updates
- Road system update
- Run TransCAD model to predict 2030-2035 traffic volumes



# Break-even Analysis

Following update of traffic model:

- Develop comparison of traffic with and without project
  - Travel time
  - Level-of-service
  - Accidents
  - Right-of-way requirements
  - Freight movement
  - Quality of life
- Develop methodology for calculating a break-even point at which the benefits of an alternative corridor equal or exceed the costs
- Apply methodology to alternative corridors



# Corridor Evaluation

- Establish evaluation factors
- Review factors with DOT&PF, then Steering Committee
- Use GIS to screen potential corridors
- Apply evaluation factors to potential corridors

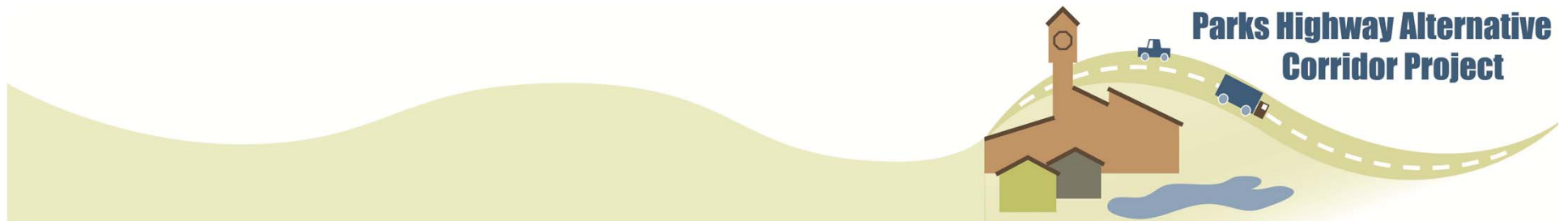
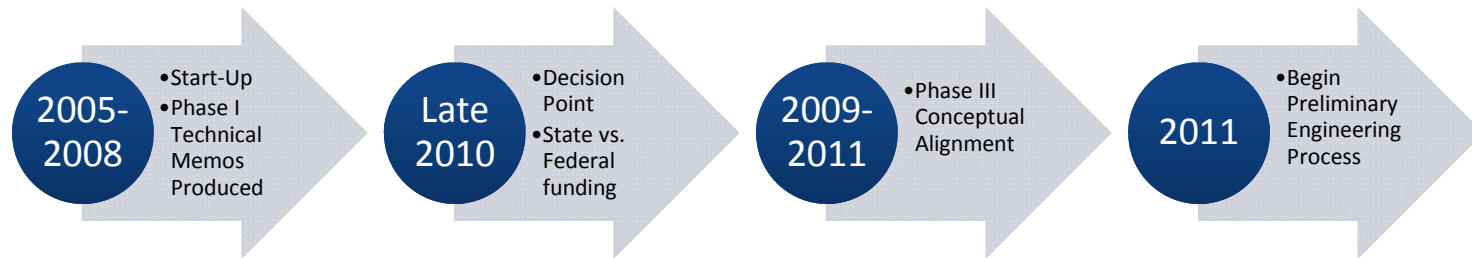


# Corridor Evaluation

- Review preliminary corridors with Agency, then Steering Committee
- Seek stakeholder, agency, and public input on draft corridor evaluation factors and results
- Change as appropriate, recommend corridors for engineering



# Project Schedule





# Questions?



# Contacts

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