AGENDA
LOVELAND CITY COUNCIL STUDY SESSION
TUESDAY, OCTOBER 13, 2015
CITY COUNCIL CHAMBERS
500 EAST THIRD STREET
LOVELAND, COLORADO

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Betsey Hale's Farewell Reception in the Lobby 5:00 – 6:30 P.M.

STUDY SESSION 6:30 P.M. STUDY SESSION AGENDA

1. PUBLIC WORKS AND LOVELAND FIRE RESCUE AUTHORITY
RAILROAD ISSUES
(presenters: Leah Browder, Jeff Bailey, Mark Miller, and Tim Smith)

This is an informational presentation to support City Council discussion regarding train issues including train horn noise, Quiet Zones, materials hauling and safety.
Should the City Council direct train issues as a priority work plan item, funding for a consultant to update the 2009 Quiet Zone Study and submit applications (Federal Railroad Administration, Colorado Public Utilities Commission, grants, etc.) would be required.

2. HUMAN RESOURCES
HEALTHSTAT CLINIC UPDATE
(presenter: Julia Holland)

This is an information only item to update Council on the City's Employee Clinic.

ADJOURN

CITY OF LOVELAND
PUBLIC WORKS DEPARTMENT
Administration Offices • 2525 W 1st Street • Loveland, Colorado 80537
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AGENDA ITEM: **1**
MEETING DATE: 10/13/2015
TO: City Council
FROM: Leah Browder, Public Works Director
Mark Miller, Chief, LFRA
PRESENTERS: Leah Browder, Public Works Director
Jeff Bailey, PE, Interim City Engineer
Mark Miller, Chief, LFRA
Tim Smith, Battalion Chief, LFRA

TITLE:
Train Issues – Horn Noise/Quiet Zones and Railroad Hazards

RECOMMENDED CITY COUNCIL ACTION:
This is an informational item.

SUMMARY:
This is an informational presentation to support City Council discussion regarding train issues including train horn noise, Quiet Zones, materials hauling and safety.

BUDGET IMPACT:
☐ Positive
☒ Negative
☐ Neutral or negligible
Should the City Council direct train issues as a priority work plan item, funding for a consultant to update the 2009 Quiet Zone Study and submit applications (Federal Railroad Administration, Colorado Public Utilities Commission, grants, etc.) would be required.

BACKGROUND:
Two areas of railroad issues will be presented in tonight's City Council Study Session:
1. Train Horn Noise and Quiet Zones (Public Works staff presentation)
2. Railroad Hazards (LFRA staff presentation)

TRAIN HORN NOISE/QUIET ZONES

Information provided in the staff memorandum for the October 13, 2015 City Council Study Session provides a brief history of this topic, an overview of federal requirements, options, citizen input, and cost estimates to reduce and/or eliminate train horn noise impacts for each of the 33 railroad crossings in Loveland. The staff memorandum also provides information about the efforts of other Colorado cities to establish Quiet Zones.

The City of Loveland contracted for a Quiet Zone Study in 2009. Study results indicated that the total cost to create "quiet" crossings at Loveland's 33 rail crossings totaled approximately $9.5 million in 2009 or an estimated $11.4 million in 2015. Potential implementation strategies,

including opportunities to phase-in Quiet Zone crossing improvements over time to address immediate and future needs as well as to respond to resource constraints is also included.

Citizens participating in a 2009 survey on this topic indicated the BNSF corridor between 1st, 4th, 6th, 7th, 10th and Garfield to be a top priority. Very preliminary estimates indicate a $2.64 million cost to establish a Quiet Zone for this corridor.

Cost estimates in the 2009 Quiet Zone Study do not include any potential additional costs that may be assigned to the requesting jurisdiction by some railroads. Additional costs may include reimbursement for railroad work such as investigation, engineering, and design, as well as on-going maintenance and replacement costs for Quiet Zone equipment.

Should the City Council wish to pursue Quiet Zone implementation at this time, it is recommended that this study be reviewed so that strategies and cost estimates can be updated with local comparatives now more available.

Cities that have successfully established Quiet Zones indicate that in certain circumstances, crossings can be realized in less than a year. More typically, projects take from 18 months to five years.

Discussion for funding any Quiet Zone improvements requires further work and consideration within the wider context of city-wide priorities.

RAILROAD HAZARDS

The Loveland Fire Rescue Authority (LFRA) will provide an overview of railway hazardous materials hauling and LFRA response preparedness.

REVIEWED BY CITY MANAGER:

William D. Cahill

LIST OF ATTACHMENTS:

1. Staff Memorandum
2. Train Horn Noise/Quiet Zones PowerPoint Presentation
3. Railroad Hazards PowerPoint Presentation
4. Proposed TIS Resolution

Memo

To: Mayor and City Council

Via: William D. Cahill, City Manager
Rod Wensing, Assistant City Manager

From: Leah Browder, Public Works Director
Mark Miller, Chief, Loveland Fire Rescue Authority
Jeff Bailey, PE, Interim City Engineer
Tim Smith, Battalion Chief

Date: October 7, 2015

Re: Train Issues – Horn Noise/Quiet Zones and Railroad Hazards

Summary:

This memo is intended to provide and review train information previously presented to City Council as well as some updates to support discussion regarding train issues in Loveland. Specifically, horn noise, quiet zones and railroad hazards. Staff support includes the Public Works Department and the Loveland Fire Rescue Authority.

TRAIN HORN NOISE AND QUIET ZONES

Train Horn Rule History and Evolution

In the late 1980's, the Federal Railroad Administration (FRA) observed a significant increase in nighttime train-vehicle collisions at certain gated highway-rail grade crossings on the Florida East Coast Railway (FEC) where nighttime whistle bans had been established in accordance with State statute. Florida's law permitted the establishment of whistle bans from 10 p.m. to 6 a.m. at crossings located on railroads that operated only within the state of Florida that were equipped with flashing lights and gates. The study compared the number of collisions before and after the implementation of the Florida Whistle Ban. The results identified a 195% increase in train-vehicle collisions during the ban hours at hornless gated grade crossings. There was not a similar increase in collisions during the time period that horns were sounded. After considering many possible factors that could have contributed in the increase in the number of collisions, FRA concluded that the whistle ban was the primary factor contributing to the increase in grade crossing collisions and subsequently issued Emergency Order 15, which overturned Florida's ban and required trains to resume sounding their horns. The rate of nighttime collisions at the whistle ban crossings returned to the level that existed prior to the establishment of the whistle bans.

The study of Florida's whistle bans raised concerns about the impact of whistle bans on crossing collisions nationwide. A national study concluded that the lack of a train horn increased the risk of a collision by 66.8% at crossings that were equipped with flashing lights and gates. These studies prompted Congress to take further action by directing FRA to issue a federal regulation requiring trains to sound locomotive horns at all public highway-rail grade crossings. It also gave FRA the ability to determine

exceptions to that requirement by allowing communities to establish quiet zones to mitigate the use of horns without compromising safety.

Prior to 2005, the rules for use of train horns allowed for more discretion by the locomotive engineers. The pattern and decibel level of the horn sound varied greatly. Locomotive engineers also had the option of not sounding the horn when there was no hazard on the tracks, which was appreciated, particularly during nighttime hours. While the flexibility in using the locomotive horn provided communities with less horn noise, it also resulted in less consistency not only among train engineers and their use of the horn, but also in driver expectation when approaching a crossing.

New federal rules (Final Rule on Use of Locomotive Horns at Highway-Rail Grade Crossings, June 2005, Amended August 2006) were adopted in 2005, mandating a consistent pattern and decibel level of horn sounding at public at-grade crossings. Train horn use is now more consistent than prior to 2005, which results in an increase in horn noise over the previous discretionary horn sounding condition.

The Final Rule on Use of Locomotive Horns at Highway-Rail Grade Crossings, published in the Federal Register on April 27, 2005, includes the following points:

1. Under the Train Horn Rule (49 CFR Part 222), locomotive engineers must begin to sound train horns at least 15 seconds, and no more than 20 seconds, in advance of all public grade crossings.
2. If a train is traveling faster than 60 mph, engineers will not sound the horn until it is within ¼ mile of the crossing, even if the advance warning is less than 15 seconds.
3. There is a "good faith" exception for locations where engineers can't precisely estimate their arrival at a crossing and begin to sound the horn no more than 25 seconds before arriving at the crossing.
4. Train horns must be sounded in a standardized pattern of 2 long, 1 short and 1 long blasts. The pattern must be repeated or prolonged until the lead locomotive or lead cab car occupies the grade crossing. The rule does not stipulate the durations of long and short blasts.
5. The maximum volume level for the train horn is 110 decibels which is a new requirement. The minimum sound level remains 96 decibels.

The FRA states that fatalities and accidents at train crossings nationwide are down significantly since the changes implemented in 2005. The FRA recorded 14,523 "accidents/incidents" at train crossings in 2004. In 2012, that number was 10,906 — a decline of more than 24 percent.

Quiet Zones

The Final Rule provides an opportunity for localities nationwide to mitigate the effects of train horn noise by establishing new Quiet Zones. In a Quiet Zone, railroads have been directed to cease the routine sounding of their horns when approaching public highway-rail grade crossings. Localities desiring to establish a Quiet Zone are first required to mitigate the increased risk caused by the absence of a horn.

A Quiet Zone is a section of a rail line at least one-half mile in length that contains one or more consecutive public highway-rail grade crossings at which locomotive horns are not routinely sounded when trains are approaching the crossings. The prohibited use of train horns at Quiet Zones only applies to trains when approaching and entering crossings and does not include train horn use within passenger stations or rail yards. Train horns may be sounded in emergency situations or to comply with other

railroad or FRA rules even within a Quiet Zone. Quiet Zone regulations also do not eliminate the use of locomotive bells at crossings.

Since the federal government began allowing Quiet Zones in 2005, the FRA says that 647 have been established nationwide. That includes 12 in Colorado in six different communities. Four in Commerce City, four in Arvada, and one each in Monument, Fort Morgan, Winter Park and El Paso County.

City of Loveland Quiet Zone Study

In response to concerns expressed by the community regarding the impacts of train horn noise, the City of Loveland commissioned a Railroad Quiet Zone study in 2009. The purpose of the study, completed by Felsburg Holt and Ullevig (FHU), was to evaluate and recommend improvements at the 33 highway-rail grade crossings located within the city and its Growth Management Area (GMA).

There are three rail corridors in the city of Loveland:

1. The Burlington Northern Santa Fe (BNSF)

The BNSF is oriented north-south through the community with three crossings east of the downtown switch leading to the Great Western Railway line that are still under the control of the BNSF. This line includes 19 crossings (16 public and 3 private).

BNSF operates 24 hours a day running approximately 16 trains a day with a maximum speed of 49 MPH north of 29th Street and south of 28th Street. Train speeds through downtown are restricted to 25 MPH.

2. Great Western Railway (GWR) is managed by OmniTRAX.

The GWR line is oriented east-west through the community beginning at Monroe Street and continuing east through seven public and two private at-grade crossings to the crossing of the I-25 Frontage Road.

GWR operates 24 hours a day running four trains per day at a maximum speed of 35 MPH.

3. Union Pacific Railroad (UPRR)

The UPRR runs northwest-southeast through the northeast quadrant of Loveland's BMA and encompasses five public at-grade crossings.

UPRR is a 24 hour a day operation running two trains per day, with switching operations only at the crossing of Boyd Lake Avenue. Train speeds are restricted to 25 MPH along this line, with an allowable increase to 40 MPH through the Rocky Mountain Avenue crossing.

The table below provides an overview of the 33 highway-rail grade crossings including estimated costs for Quiet Zone construction located within the city including the Growth Management Area (GMA):

	LOCATION	RAIL	Distance Between Crossings	Total Trains	RR Circuitry	GATE/ LIGHT	ADT	YEAR	Adjacent Land Use	Estimated Construction Cost
GWR Future	I25 FRONTAGE RD	GWR	0.76	4	DC/AFO	YES	50	1980	Open	$324,000
	(MCKEE FARM)	GWR	0.32	0	NONE	NO			Open	Close w/ Dev
	(MCKEE FARM)	GWR	0.32	0	NONE	NO			Open	Close w/ Dev
GWR Corridor 1	CR 9 (Boyd Lake Ave)	GWR	0.41	4	CWT	YES	7,400	2007	Open	$372,000
	DENVER SO US 34	GWR	0.32	0	CWT	NO	11,800	2007	Open	$252,000
	BOISE AVE	GWR	0.18		CWT	YES	7,700	2007	Industrial	$264,000
	MADISON NO 8TH	GWR	0.18	4	DC	NO	11,000	2006	Industrial	$468,000
	MONROE SO 11th	GWR	0.11	10	NONE	NO	1,300	1994	Residential	$360,000
	WASHINGTON SO 11th	GWR	0.11	10	NONE	NO	2,050	1994	Residential	$360,000
UPRR Corridor	CR3 SO SH 34	UPRR	0.14	2	NONE	NO	110	1994	Open	$456,000
	US 34A WO CR3	UPRR	0.14	2	DC/AFO	NO	43,500	2006	Open	$720,000
	ROCKY MOUNTAIN AVE	UPRR	0.67	2	CWT	YES	8,300	2007	Residential	ytbd
	BOYDLKAVCR9NOUS34	UPRR	1.51	2	NONE	YES	4,300	2007	Residential	$552,000
	CR30	UPRR	1.53	2	NONE	YES	700	1994	Open	$624,000
BNSF Corridor 5	CAMP RD (CR14/42nd ST SW)	BNSF	1.00	16	DC/AFO	YES	2,500	1994	Residential	$1,224,000
	PRIVATE (FARMSTEAD)	BNSF		16	NONE	NO			Residential	$252,000
	CO RD 16 (28th ST SW)	BNSF	1.00	16	DC/AFO	YES	750	1994	Residential	$792,000
BNSF Corridor 4	14th ST SW	BNSF	0.54	16	DC/AFO	YES	15,695	2008	Residential	$876,000
	PRIVATE (JANSMA BROS.)	BNSF		16	NONE	NO			Industrial	$252,000
	PRIVATE (RESIDENTIAL)	BNSF		16	NONE	NO			Residential	$252,000
	ROOSEVELT AVE (RAILROAD)	BNSF	0.54	16	DC/AFO	YES	1,862	2008	Industrial	$984,000
BNSF Corridor 1	1st STREET	BNSF	0.19	16	DC/AFO	YES	11,219	2008	Commercial	$456,000
	4th STREET	BNSF	0.06	16	DC/AFO	YES	3,455	2008	Commercial	$456,000
	6TH ST	BNSF	0.07	15	DC/AFO	YES	1,903	2008	Residential	$948,000
	7TH ST	BNSF	0.07	15	CWT	YES	3,700	1994	Residential	$120,000
	10th ST (WEST)	BNSF	0.07	15	CWT	YES	1,374	2008	Residential	$240,000
	GARFIELD ST	BNSF	0.50	15	CWT	YES	5,877	2008	Residential	$420,000
BNSF Corridor 3	10TH ST (EAST) – WYE	BNSF	0.06	2	NONE	NO	1,650	1994	Residential	$792,000
	CLEVELAND NO 19TH (SB)	BNSF	0.07	7	DC/AFO	NO	15,000	1996	Residential	$432,000
	LINCOLN NO 10TH	BNSF	0.07	7	DC/AFO	NO	15,000	1996	Residential	$432,000
BNSF Corridor 2	29TH ST	BNSF	0.51	15	DC/AFO	YES	15,481	2008	Residential	$1,284,000
	37TH ST	BNSF	0.63	15	DC/AFO	YES	11,162	2008	Residential	$672,000
	57TH ST	BNSF	1.45	15	DC/AFO	YES	8,125	2008	Residential	$336,000

Crossing has adjacent crossing closer than ¼ mile. Must be addressed as a corridor.

Crossing has upgraded circuitry required for establishment of Quiet Zone.

Quiet Zone Requirements

The FRA requires communities to install Supplemental Safety Measures (SSMs) and/or Alternative Safety Measures (ASMs) to create Quiet Zones.

Loveland's 2009 Quiet Zone Study assessed current conditions and determined if Supplemental Safety Measures (SSMs), Alternative Safety Measures (ASMs), or Wayside Horns should be used to fully compensate for the absence of the train horn.

SSMs include physical barriers to prevent vehicles from entering the railroad track area when a train is present. Examples include railroad crossing gates and raised medians/curbs. The SSMs considered, as identified in the Final Rule, included the following:

- Temporary Closure (used with a nighttime-only Quiet Zone)
- Four-Quadrant Gate System
- Gates with raised Medians or Channelization Devices
- Conversion to One-Way Street with Gates across the roadway
- Permanent Crossing Closure

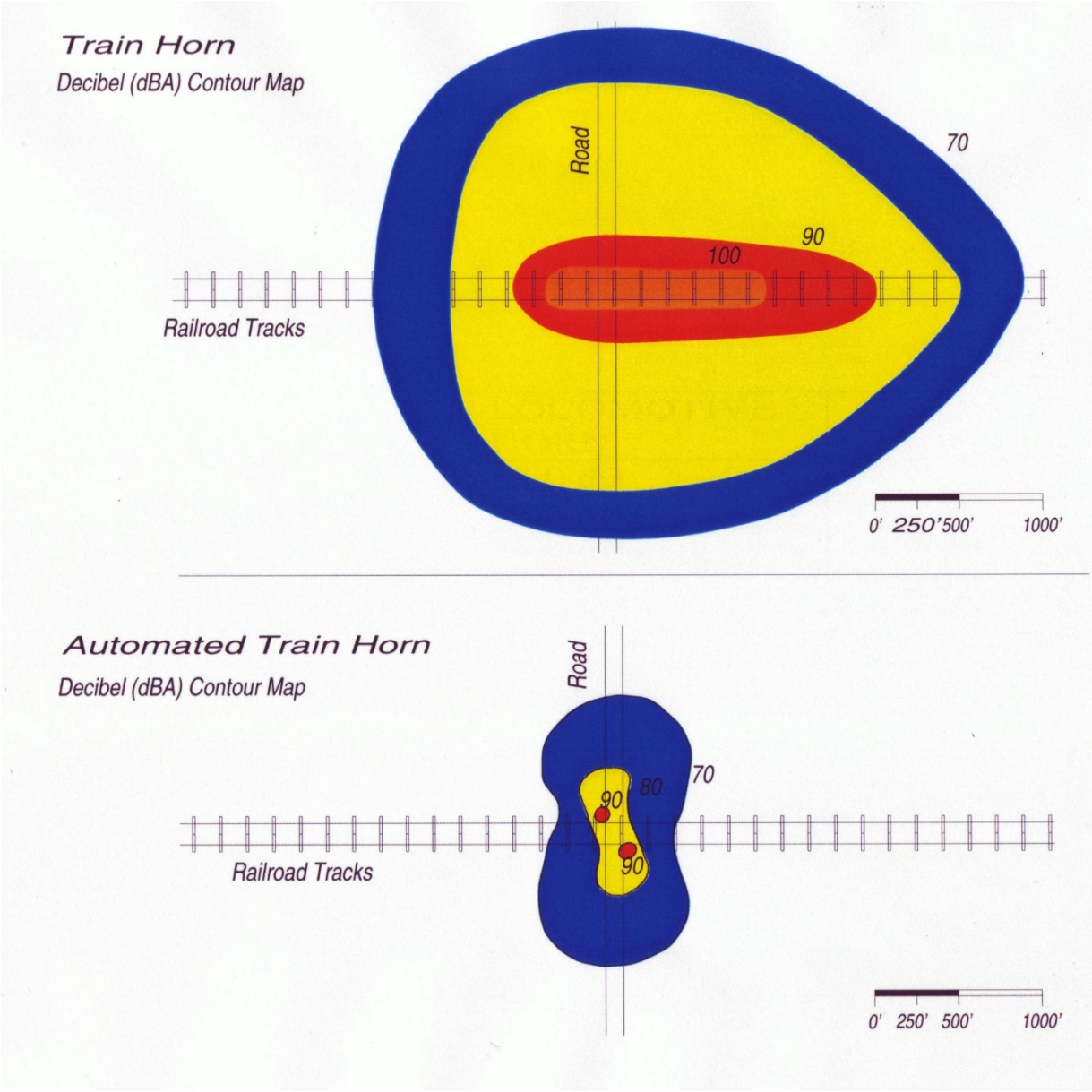
SSMs physically prevent accidents at crossings. These are recognized measures that do not require further FRA review or approval prior to implementation.

While not included in this study due to significant cost implications and practical considerations, another option is to build more overpasses so that motorists can safely cross over or under the track without regard for when trains operate. When most communities built roads across rail lines, they had the option of building an overpass or underpass over, or under, the track. Most chose the less expensive option, which was to build the road at grade level with the tracks.

The federal highway system incorporates under- and overpasses. Trains and motor vehicles safely pass over and under each other without danger of collision or the need to blow a horn.

Wayside Horns are FRA approved devices that may be used in lieu of locomotive horns at individual or multiple highway-rail grade crossings, including those within Quiet Zones. The wayside horn is a stationary horn located at a highway-rail grade crossing, designed to provide audible warning to oncoming motorists of the approach of a train. This configuration also requires a Quiet Zone indication that notifies the train crew that the wayside horn is working properly so that it is not necessary to sound the locomotive horn. While wayside horns do not eliminate train horn noise for a true "quiet zone", they are typically a less expensive option that provides a narrower noise pattern that is focused on the approaching street, rather than impacting the larger surrounding neighborhood or area.

A comparison of train horn and wayside horn noise footprints is depicted in the following diagram from the FRA.



The Final Rule indicates that a highway-rail grade crossing with a wayside horn shall be considered in the same manner as a crossing treated with an SSM.

Alternative Safety Measures (ASMs) consist of improvements that fall outside the scope of SSMs and may be proposed to FRA for consideration and approval. Examples of ASMs are:

- Supplemental SSMs that do not fully comply with the FRA requirements
- Programmed law enforcement
- Public education and awareness
- Video enforcement the monitors traffic flow and records traffic violations

The effectiveness rate of ASMs must be determined prior to FRA approval. It should be noted that the implementation of several ASMs may be required in order to reduce the risk below the threshold for the silencing of train horns.

To date, these types of measures have only been approved for use in communities in conjunction with infrastructure improvements to create Quiet Zones. There are no examples nationally of communities employing only non-infrastructure measures to successfully achieve a Quiet Zone designation. These types of measures appear most effective when implemented in concert with physical infrastructure improvements to create Quiet Zones. This is due to potential safety risks and on-going, uncertain cost factors associated with developing, gaining approvals, implementing, monitoring, and maintaining these types of programs in accordance with FRA requirements if they were to be done as "stand alone" safety measures.

Costs and Timeframes for Loveland Quiet Zones

Study results indicated that the total cost to create "quiet" crossings at Loveland's 33 rail crossings totaled approximately $9.5 million in 2009 or an estimated $11.4 million in 2015. Should the City Council wish to pursue Quiet Zone implementation at this time, it is recommended that this study be reviewed so that strategies and cost estimates can be updated with local comparatives now more available.

From a practical standpoint, should construction of Quiet Zones be pursued, the City may want to consider implementing Quiet Zones in segments - bundling a set of crossing improvements - to create economies of scale for implementation and a noise relief benefit for people living/working adjacent to closely spaced railroad crossings.

Citizens participating in a 2009 survey on this topic indicated the BNSF corridor between 1st, 4th, 6th, 7th, 10th and Garfield to be a top priority. Very preliminary estimates indicate a $2.64 million cost to establish a Quiet Zone for this corridor.

Cost estimates in the 2009 Quiet Zone Study do not include any potential additional costs that may be assigned to the requesting jurisdiction by some railroads. Additional costs may include reimbursement for railroad work such as investigation, engineering, and design, as well as on-going maintenance and replacement costs for Quiet Zone equipment.

Cities that have successfully established Quiet Zones indicate that crossings with much of the equipment already present using the SSM treatment that have been tested and approved by the FRA can achieve a Quiet Zone in less than a year. Those crossings requiring a greater amount of equipment installation or roadway construction can be established in 18 months to five years. It is possible for a proposal to fail or to take many years if it includes nonstandard approaches, is very complex and/or includes construction complications.

Loveland Quiet Zone Survey and Open House Results

A 2009 citizen survey on Train Horn Noise and Quiet Zones yielded over 333 responses. Of those responding to the survey, 61 indicated they lived within 100 yards of a railroad line; 114 within ¼ mile; and 97 within ½ a mile.

When asked, "If you believe there is a problem, what time of day do you believe the problem exists?" 35% believe there is a problem at night only; 28% believe that all day is a problem; and 34% of respondents indicated they believe there is no problem;

Of 325 respondents answering the question, "Do you believe the City of Loveland should redirect funds from other capital projects (library, roads, parks for example to fund a Quiet Zone?" 62% responded, "No."

Over 300 participants answered the question, "If a Quiet Zone project was undertaken what percentage of the project cost (estimated at $9,000,000), do you believe should come from the City's general tax support fund?" Over 150 or 50% said that zero dollars should come from the general tax support fund and 29 or 9% said 100% of the Quiet Zone funding should come from general taxes.

When asked if they would support a special district to collect funds to pay for a Quiet Zone, 211 (65%) said, "No" and 116 respondents (35%) said, "Yes."

A total of 67 comments sheets were received at a Public Open House held on February 19, 2009 in association with the Quiet Zone Study.

The single crossing with the highest number of comments indicating a desire for Quiet Zone improvements was the BNSF Garfield Street crossing.

The corridor of street crossings with the highest number of comments indicating a desire for Quiet Zone improvements were BNSF's 10th Street, 7th Street, 6th Street, 4th Street, and 1st Street.

City and Coalition Efforts to Date

March 2014 – At the request of the Northern Colorado Highway 287 Corridor Coalition, a Quiet Zone Technical Coalition (QZTC) forms comprised of technical staff from Loveland, Longmont, Fort Collins, Windsor, Larimer County and Boulder County.

July 2014 – QZTC position paper outlining shared areas of concern and providing recommendations approved by 287 Coalition in preparation for opening of the Rule.

August 2014 – Loveland hosts a statewide conference call of all concerned entities on the topic of train horn noise and the proposed opening of the Rule.

November 2014 – Loveland takes leadership role in catalyzing National League of Cities Train Horn Noise Resolution.

January 2015 – 287 Coalition sends letters to Senators Bennett and Gardner, as well as Congressman Polis, requesting help in expediting the opening of the Rule for comment.

September 2015 – 287 Coalition sends another round of letters requesting help to stimulate the opening of the Rule now promised for two years by the FRA with no action forthcoming.

Expanding Quiet Zone Partnerships

Should the City Council direct modification of the City Workplan to include additional effort toward train horn noise and Quiet Zones, a variety of updated partnership options may exist.

Through its participation in the US 287 Highway Coalition, the City could create more comprehensive partnerships with Larimer County and/or neighboring cities such as Fort Collins, Berthoud and

Longmont to develop local Quiet Zone studies and leverage resources with consultants. Coordinating Quiet Zone implementation with neighboring communities could further maximize effectiveness since train horn noise crosses jurisdictions due to horn engagement length and duration requirements. An option may include seeking federal/state/regional grant funding opportunities working in partnership with Larimer County and neighboring communities along the BNSF corridor.

Locally, there may be opportunities to pursue potential public/private partnerships, including consideration of participation by adjacent property owners and/or developers, to create Quiet Zones within new mixed use, transit-oriented districts or other areas along the BNSF corridor. Funding proposals could arise in the future through grant applications, the annual budget and annual capital improvement program. Efforts to coordinate with other Colorado municipalities will continue to monitor future statewide and federal legislative initiatives related to train horn noise and Quiet Zone regulations.

Challenges

Because railroad operations are authorized and regulated by federal law, local ordinances and state statues are not enforceable to control railroad operations.

While an Editorial in the August 30, 2015, "The Coloradoan" was aimed at the problem of parked trains blocking road crossings, it described the challenge of influencing this federal agency as follows:

"Yes, Fort Collins has grown up around the trains that came before; they are rooted in our history and undoubtedly are part of our future. However, the railways – BNSF, Great Western and Union Pacific – today bring with them a sense of arrogance and a detachment from our community.

We think they should be a partner and friend with which we can work with, not against.

City officials have walked a fine line when dealing with a bureaucratic agency such as the Federal Railroad Administration, or even the individual railways. They have to maintain a cordial working relationship. And the city alone can only do so much."

"Here is an opportunity for our legislators to step up. There are solutions to our train issues. And those whom we put in office can advocate for them."

"The legislation, which remains at a stop in Congress, has languished since January in the House Transportation Subcommittee on Railroads, Pipelines and Hazardous Materials.

The chance for passage today? Slim. The railroads are powerful and have a long history of lobbying Congress.

What we're asking isn't easy, but we believe it's right. Now is the time to make a little noise of our own, Northern Colorado."

Other Local Efforts

Arvada: The City recently passed a Resolution committing $1.8 million to establish Quiet Zones at four intersections.

Commerce City: The City established the first Quiet Zone in Colorado at a cost of $2 million and completed its fifth zone in 2014.

Fort Collins: The City has submitted an application for a 1.16 mile long Quiet Zone stretching from Old Main Drive on the Colorado State University campus to College Avenue just north of its intersection with Cherry Street.

BNSF tracks cross 12 intersections along the proposed Quiet Zone. Of those, two meet FRA requirements for warning lights, gates and circuitry connected to the railroad tracks to be part of a Quiet Zones.

Three intersections—Old Main Drive at DSU plus Magnolia and Myrtle Streets along Mason Street – would be closed to crossing traffic.

There is not enough space at other intersections along the tracks to install gates in all four directions so they City's application includes a waiver of a portion of the train horn rule so gates would not have to be added along Mason Street at Maple, Oak, Olive, Magnolia, Mulberry and Myrtle Streets, as well as at La Porte and Mountain Avenues.

The City spent $4 million on improvements along Mason Street in 2012 with the MAX bus rapid transit system construction. Additional expenses depend on the conditions imposed by the FRA, but the City estimates $5 million not including acquisition of right-of-way and other construction costs.

Longmont: The City is considering building Quiet Zones at its 21 at-grade crossings for an estimated cost of $6 million.

Windsor: The Town plans to reduce train noise at 13 railroad crossings within the town. The Quiet Zone will run southeast from Larimer County Road 15 – about a mile north of Colorado Highway 392 – to Weld County Road 19 – less than a mile south of Colorado 392 – and then south to Colorado Highway 257 at Eastman Park Drive.

A U.S. Department of Transportation grant will be used for the $3.3 million project scheduled to be complete by the end of 2015.

Conclusion

An updated effort to pursue implementation of Quiet Zones in Loveland would require significant staff time investment and consultant support, as well as additional state and federal legislative support.

RAILROAD HAZARDS

The Loveland Fire Rescue Authority (LFRA) will provide an overview of railway hazardous materials hauling and LFRA response preparedness during the October 13, 2015 City Council Study Session.

We look forward to opportunities to further discuss the information contained in this Memo.

If you have any questions or comments, please do not hesitate to contact Leah Browder at (970) 962-2520 or email at leah.browder@cityofloveland.org or Jeff Bailey at (970) 962-2551 or email at jeff.bailey@cityofloveland.org regarding train horn noise and Quiet Zones. For questions regarding

railroad hazards, please contact Chief Mark Miller (970) 962-2827 or email at mark.miller@cityofloveland.org or Battalion Chief Tim Smith at (970) 962-2803 or tim.smith@cityofloveland.org. Thank you.

Railroad Issues

Train Horn Noise and Quiet Zones

OCTOBER 13, 2015 CITY COUNCIL STUDY SESSION

LEAH BROWDER, PUBLIC WORKS DIRECTOR

JEFF BAILEY, PE, INTERIM CITY ENGINEER

Agenda

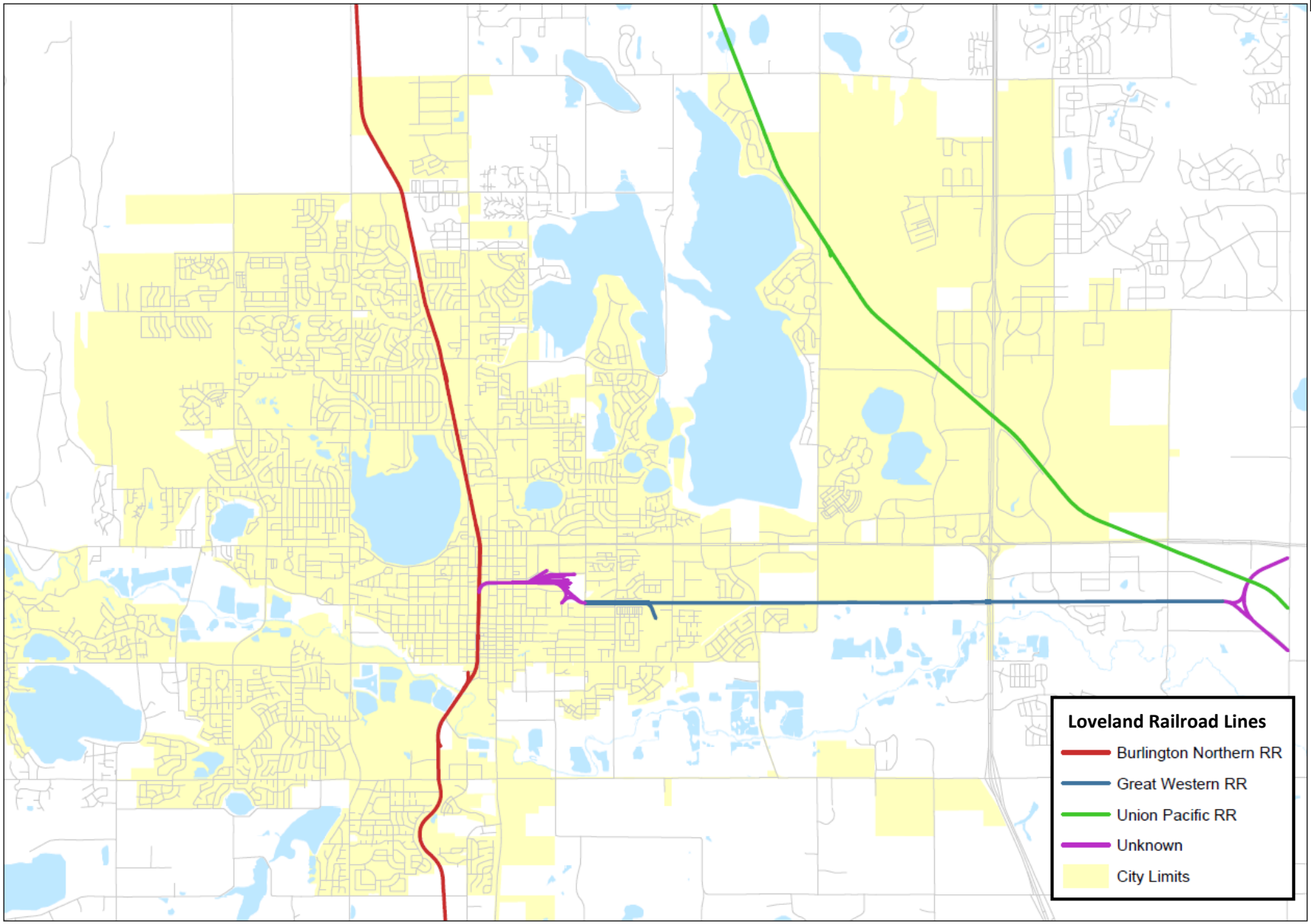
- Goal: Provide review and update 2035 Transportation Plan
- Federal History
- Quiet Zones
- Loveland Rail Crossings
- Loveland's Quiet Zones
- 2009 Citizen Survey
- City Efforts to Date
- Other Quiet Zone Efforts
- Discussion

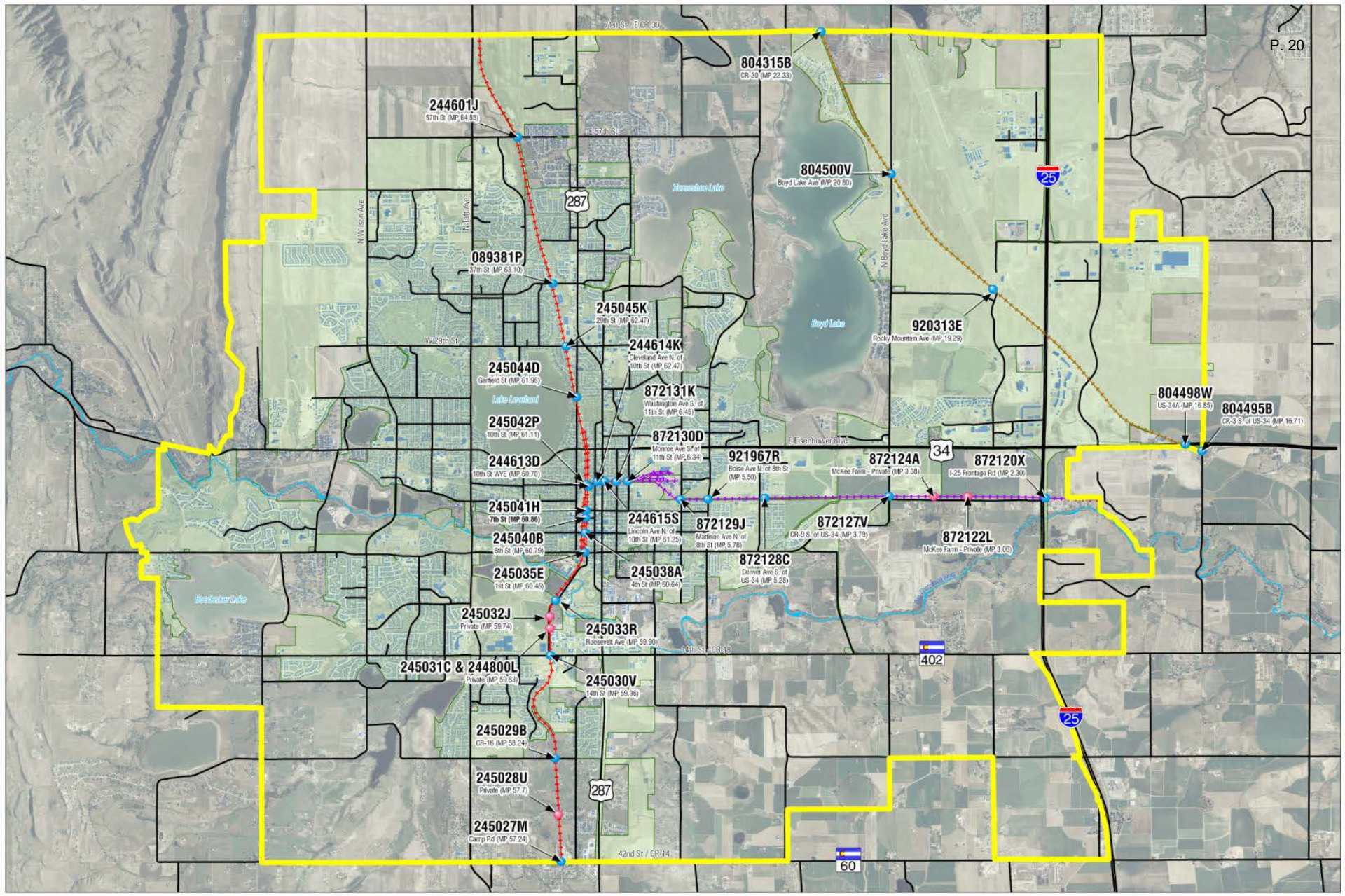
Federal History

- 1980's
  - 195% increase in train-vehicle collisions at Florida hornless gated grade crossings
  - 66.8% increased risk of collision even with flashing lights and gates if no horn
- Pre-2005
  - Rules for use of train horns at discretion of locomotive engineers
- 2005
  - "Final Rule" adopted
  - Train Horn Rule
    - at least 15 seconds and no more than 20 seconds
    - 2 long, 2 short and 1 long (duration unspecified)
- FRA reports 24% decline in accidents/incidents
  - 2004 = 14,523
  - 2012 = 10,906

Quiet Zones

- Supplemental Safety Measures (SSMs)
  - Physically prevent vehicles in track area when train present
- Wayside Horns
  - Stationary horn used in lieu of locomotive horns
- Alternative Safety Measures (ASMs)
  - Enforcement
  - Public Education and Awareness
  - Video Enforcement
  - None approved as stand-alone to date


Loveland Railroad Lines
Burlington Northern RR
Great Western RR
Union Pacific RR
Unknown
City Limits



LEGEND

- Public Railroad Grade Crossings (28 Crossings)
- Private Railroad Grade Crossings (5 Crossings)
- City of Loveland Boundary
- Loveland Growth Management Area
- BNSF Railway (19 Crossings)
- Great Western Railway (9 Crossings)
- Union Pacific Railroad (5 Crossings)

0 1 2 Miles

NORTH

City of Loveland

Railroad Grade Crossings
for Quiet Zone Study
February 2009

Loveland's Quiet Zones

- 2009 Consultant Quiet Zone Study
- 33 Crossings
- $9.5 million (2009) = $11.4 million (2015)
- Railroad may impose additional requirements that increase costs
- Citizen Open House
  - Priority Corridor: 1st, 4th, 6th, 7th, 10th and Garfield
  - $2.64 million project cost estimate
- Projects could be bundled and phased
- Implementation: 18 months to 5 years

	LOCATION	RAIL	Distance Between Crossings	Total Trains	RR Circuitry	GATE/ LIGHT	ADT	YEAR	Adjacent Land Use	Estimated Construction Cost
GWR Future	I25 FRONTAGE RD	GWR	0.76	4	DC/AFO	YES	50	1980	Open	$324,000
	(MCKEE FARM)	GWR	0.32	0	NONE	NO			Open	Close w/ Dev
	(MCKEE FARM)	GWR	0.32	0	NONE	NO			Open	Close w/ Dev
GWR Corridor 1	CR 9 (Boyd Lake Ave)	GWR	0.41	4	CWT	YES	7,400	2007	Open	$372,000
	DENVER SO US 34	GWR	0.32	0	CWT	NO	11,800	2007	Open	$252,000
	BOISE AVE	GWR	0.18		CWT	YES	7,700	2007	Industrial	$264,000
	MADISON NO 8TH	GWR	0.18	4	DC	NO	11,000	2006	Industrial	$468,000
	MONROE SO 11th	GWR	0.11	10	NONE	NO	1,300	1994	Residential	$360,000
	WASHINGTON SO 11th	GWR	0.11	10	NONE	NO	2,050	1994	Residential	$360,000
UPRR Corridor	CR3 SO SH 34	UPRR	0.14	2	NONE	NO	110	1994	Open	$456,000
	US 34A WO CR3	UPRR	0.14	2	DC/AFO	NO	43,500	2006	Open	$720,000
	ROCKY MOUNTAIN AVE	UPRR	0.67	2	CWT	YES	8,300	2007	Residential	ytbd
	BOYDLKAVCR9NOUS34	UPRR	1.51	2	NONE	YES	4,300	2007	Residential	$552,000
	CR30	UPRR	1.53	2	NONE	YES	700	1994	Open	$624,000
BNSF Corridor 5	CAMP RD (CR14/42nd ST SW)	BNSF	1.00	16	DC/AFO	YES	2,500	1994	Residential	$1,224,000
	PRIVATE (FARMSTEAD)	BNSF		16	NONE	NO			Residential	$252,000
	CO RD 16 (28th ST SW)	BNSF	1.00	16	DC/AFO	YES	750	1994	Residential	$792,000
BNSF Corridor 4	14th ST SW	BNSF	0.54	16	DC/AFO	YES	15,695	2008	Residential	$876,000
	PRIVATE (JANSMA BROS.)	BNSF		16	NONE	NO			Industrial	$252,000
	PRIVATE (RESIDENTIAL)	BNSF		16	NONE	NO			Residential	$252,000
	ROOSEVELT AVE (RAILROAD)	BNSF	0.54	16	DC/AFO	YES	1,862	2008	Industrial	$984,000
BNSF Corridor 1	1st STREET	BNSF	0.19	16	DC/AFO	YES	11,219	2008	Commercial	$456,000
	4th STREET	BNSF	0.06	16	DC/AFO	YES	3,455	2008	Commercial	$456,000
	6TH ST	BNSF	0.07	15	DC/AFO	YES	1,903	2008	Residential	$948,000
	7TH ST	BNSF	0.07	15	CWT	YES	3,700	1994	Residential	$120,000
	10th ST (WEST)	BNSF	0.07	15	CWT	YES	1,374	2008	Residential	$240,000
	GARFIELD ST	BNSF	0.50	15	CWT	YES	5,877	2008	Residential	$420,000
BNSF Corridor 3	10TH ST (EAST) – WYE	BNSF	0.06	2	NONE	NO	1,650	1994	Residential	$792,000
	CLEVELAND NO 19TH (SB)	BNSF	0.07	7	DC/AFO	NO	15,000	1996	Residential	$432,000
	LINCOLN NO 10TH	BNSF	0.07	7	DC/AFO	NO	15,000	1996	Residential	$432,000
BNSF Corridor 2	29TH ST	BNSF	0.51	15	DC/AFO	YES	15,481	2008	Residential	$1,284,000
	37TH ST	BNSF	0.63	15	DC/AFO	YES	11,162	2008	Residential	$672,000
	57TH ST	BNSF	1.45	15	DC/AFO	YES	8,125	2008	Residential	$336,000

Crossing has adjacent crossing closer than ¼ mile. Must be addressed as a corridor.

Crossing has upgraded circuitry required for establishment of Quiet Zone.

Page 4
Staff Memo

2009 Citizen Survey

- 300+ Respondents
- 35% said nighttime problem only
- 34% said there is no problem
- 62% said no to redirecting funds from other capital projects
- 50% said zero dollars should come from the general tax support fund
- 65% said they would not support a special district to collect funds

City Efforts to Date

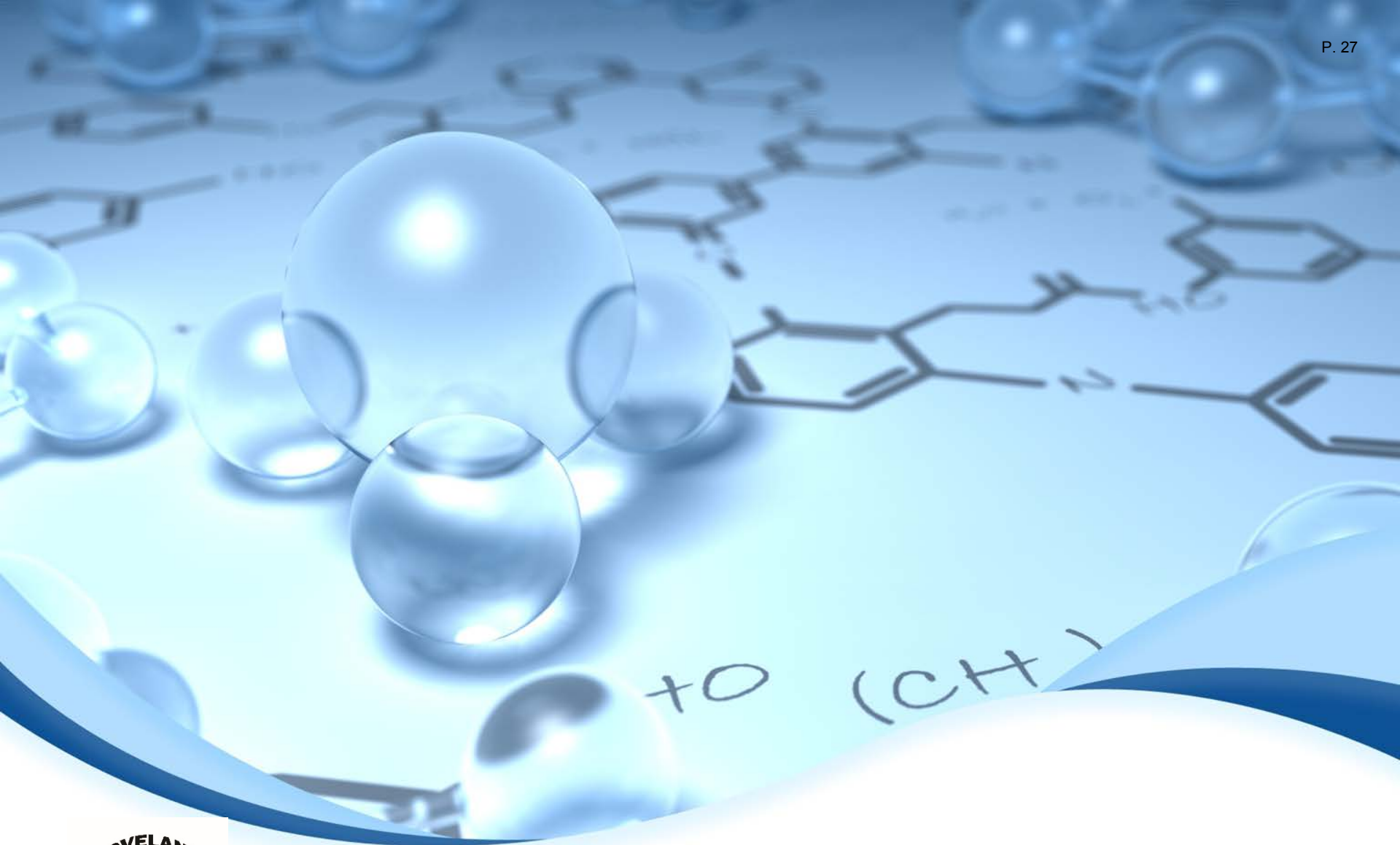
- March 2014: Quiet Zone Technical Coalition (QZTC) formed
- July 2014: QZTC Position Paper prepared for opening of the Final Rule
- August 2014: Loveland hosts statewide conference call
- November 2014: Loveland and 287 Coalition catalyzes National League of Cities Train Horn Noise Resolution
- January 2015: 287 Coalition sends letter to Senators and Congressman
- September 2015: 287 Coalition sends letters again due to FRA failed two-year promise

Other Quiet Zone Efforts

- Arvada
  - Resolution 4 intersections
  - $1.8m
- Commerce City
  - 5 zones implemented
- Fort Collins
  - Application for 1.16 mile zone
  - $4m already invested, $5m more?
- Longmont
  - Considering 21 crossings
  - $6m
- Windsor
  - 13 crossings
  - $3.3m grant

Train Horn Noise and Quiet Zones

Discussion



Railroad Hazards

For Loveland City Council Study Session

By **Battalion Chief Tim B. Smith**

Rail Line Information

Presented to the City of Loveland Council Members

- Rail Lines & Associated Hazards
- Loveland's Train Activity
- Most Common Hazardous Materials
- Product Identification
- How Loveland Fire Rescue Authority Responds
- Resources

Rail Lines & Associated Hazards

Rail Lines:

- Burlington Northern Santa Fe (BNSF)
- OmniTRAX (previously known as Great Western)
- Union Pacific Railroad (UP)

Associated Hazards:

- Grassfires
- Motor Vehicle Accidents
- Derailments
- Hazardous Materials Releases

Loveland's Train Activity

BNSF
8 Trains (6AM-6PM)
8 Trains (6PM-6AM)
Average Speed – 25 MPH

OmniTRAX
2 Trains (6AM-6PM)
2 Trains (6PM-6AM)
Average Speed – 10 MPH

Union Pacific
1 Train (6AM-6PM)
1 Train (6PM-6AM)
Average Speed – 25 MPH

Most Common Hazardous Materials

Top 10 HazMats:

1. Liquefied Petroleum Gas
2. Petroleum Crude Oil
3. Elevated Temp Liquid N.O.S.
4. Sulphuric Acid
5. Flammable Liquids, N.O.S.
6. Fuel Oil
7. Diesel Fuel
8. Hydrochloric Acid Solution
9. Molten Sulphur
10. Alcohols N.O.S.

Product Identification

Find train crew

Obtain waybill

Utilize Emergency Response Guide (ERG)

Request Resources

Product Identification

Nine Classes of Hazardous Materials

Class 1: Explosives
Divisions: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6

Class 2: Gases
Divisions: 2.1, 2.2, 2.3

Class 3: Flammable Liquid and Combustible Liquid

Class 4: Flammable Solid, Spontaneously Combustible, and Dangerous When Wet
Divisions 4.1, 4.2, 4.3

Class 5: Oxidizer and Organic Peroxide
Divisions 5.1, 5.2

Class 6: Poison (Toxic) and Poison Inhalation Hazard

Class 7: Radioactive

Class 8: Corrosive

Class 9: Miscellaneous

Dangerous

Revised 06/05

Federal Motor Carrier Safety Administration

U.S. Department of Transportation
www.fmcsa.dot.gov

Product Identification (our most common)

Hazard Classifications

1. – Flammable Liquid (Class 3)
Petroleum Crude Oil

2. – Flammable Gas (Class 2)
Liquefied Petroleum Gas

Product Identification (our most common)

Hazard Classifications

3. – Miscellaneous (Class 9)
Elevated Temperature Liquid

4. – Corrosive (Class 8)
Sulphuric Acid

How Loveland Fire Rescue Authority (LFRA) Responds

76 – Full time personnel

12 – Part time personnel

5 – Reserve personnel

7 - Companies
- 5 Engines
- 2 Support

22 – Daily Staffing

How LFRA Responds

Hazardous Materials Responses

LFRA is the Designated Emergency Response Authority (DERA) for the City of Loveland

Hazardous Materials Response:

- 2 – Engines
- Rescue 2
- HazMat 1
- Battalion 1
- TVEMS
- Pre-alert page sent to the Special Operations Team

How LFRA Responds

Incident Command

Upon LFRA's arrival Command is established

Unified Command is built as other agencies arrive

(dependent upon the complexity of the incident)

Resources

- Recall page sent for off duty response
- Mutual Aid HazMat Teams response
- CHEMTREC
- State (CSP, EOC)
- BNSF/OT/UP
- Federal (EPA)

Resources

Front Range Fire Consortium (FRFC) HazMat Consortium

LFRA is a member of the FRFC HazMat Consortium

Regional training and collaboration in mutual aid responses for Large HazMat incidents.

- Boulder Fire
- Greeley Fire
- Longmont Fire
- Loveland Fire Rescue Authority
- Poudre Fire Authority

Questions?

Railroad Hazards
Battalion Chief Tim B. Smith
970-222-9220
tim.smith@cityofloveland.org

PROPOSED TIS RESOLUTION

PROTECTING CITIES AND TOWNS FROM RAIL DISASTERS INVOLVING HAZARDOUS MATERIALS[1]

[TIS Steering Committee Recommendation: Adopt]

WHEREAS, new technologies have resulted in the development of unprecedented amounts of both domestic and foreign oil, natural gas, tar sands, bitumen, and other petroleum products and derivatives, which, in turn is expected to significantly increase the volume of petroleum products transported across the nation by land and waterways; and

WHEREAS, the U.S. Department of Transportation (DOT) Pipeline and Hazardous Materials Safety Administration has determined that crude oil originating in the Bakken formation is more flammable than traditional crude oil; and

WHEREAS, in many instances, the rail lines that carry hazardous material, such as crude oil and ethanol, as well as other hazardous explosives, compressed gases, flammable liquids and solids, oxidizers and organic peroxides, toxic materials, radioactive material, and corrosive material[2], transported through and adjacent to city neighborhoods, schools, parks, business and industrial areas, and along waterfronts, creeks, wetlands and other sensitive natural areas; and

WHEREAS, state and local emergency managers may not have the necessary, accurate or timely information on the materials transported through their communities or the resources to adequately respond to an emergency; and

WHEREAS, local governments are concerned about the potential impacts on public safety, infrastructure, drinking water supplies, and resulting economic disruptions from possible derailments and spills of hazardous materials as trains run through their communities and surrounding areas, as well as the direct and indirect costs associated with response and recovery from a derailment and spill; and

WHEREAS, there have been a number of significant rail accidents involving hazardous materials causing tragic impacts on the affected communities, including instances such as a train carrying ethanol that derailed outside Rockford, Illinois, on June 20, 2009, killing one person; a train carrying crude oil that derailed in Lac Megantic, Quebec, on July 6, 2013, killing 47 people; a train carrying crude oil that derailed on December 30, 2013, in Casselton, North Dakota, causing violent explosions and a hazardous plume of smoke; and a train carrying crude oil that derailed in Lynchburg, Virginia, on April 30, 2014; and

WHEREAS, it is the responsibility of federal regulators to assure that the transport of hazardous materials does not pose a significant threat to the public safety and welfare; and

[1] Joint resolution by the Energy, Environment and Natural Resources Committee, Public Safety and Crime Prevention Committee, and Transportation Infrastructure and Services Committee.

[2] Classes of hazardous material, U.S. Department of Transportation.

WHEREAS, DOT analysis concluded that many freight railroad insurance policies are not likely sufficient to cover damages resulting from a moderate to severe train accident involving hazardous materials[3]; and

WHEREAS, the National Transportation Safety Board has advised industry and regulators since 1991 that the DOT-111 tank car that is used as the primary packaging for the shipment of hazardous materials is unusually prone to puncture in rail accidents and derailments; and

WHEREAS, DOT has initiated a rulemaking process to improve the safe transportation of large quantities of flammable and hazardous materials by rail, including enhanced tank car standards, reduced operating speeds, and emergency response notification.

NOW, THEREFORE, BE IT RESOLVED that the National League of Cities (NLC) urges Congress and the Administration to create clear, forward-looking, and comprehensive regulations with sufficient regulatory enforcement resources to improve the safety of rail transport of hazardous materials so as to assure the public that its safety is not being unduly threatened by this transport; and

BE IT FURTHER RESOLVED that NLC urges Congress and the Administration to create regulations for tracking chemical composition of transported flammable and hazardous materials and liquids so that local governments and emergency managers can better understand and plan for the risks associated with the specific types of hazardous materials traveling on rail lines through their communities; and

BE IT FURTHER RESOLVED that NLC urges Congress and the Administration to develop an appropriate mechanism for rail transporters and product shippers/importers to provide, in the event of an incident, state and local emergency managers with accurate and immediate/real time information, using available technology, such as radio frequency ID tags, regarding the identity and location of all hazardous materials on a train; and

BE IT FURTHER RESOLVED that NLC urges Congress and the Administration to require rail transporters and product shippers/importers to prepare and fund an emergency response assistance plan for their products and routes, in consultation with states and local governments, to ensure sufficient emergency response supplies, equipment, personnel and resources are available for rapid response assistance on rail lines that serve as routes for hazardous materials; and

BE IT FURTHER RESOLVED that NLC urges Congress and the Administration to require all rail transporters and product shippers/importers of hazardous materials to maintain sufficient liability coverage for accidents and to provide the community with full cost recovery on the response through final clean up in a timely manner; and

BE IT FURTHER RESOLVED that NLC urges the federal government to develop and implement new regulations improving federal tank car design, operation requirements and rail infrastructure, including the phase-out of older-model tank cars used to transport hazardous

[3] Wolfe, Kathryn A., "DOT: Rail Insurance Inadequate for Oil Train Accidents," Politico, (Aug. 6, 2014) *available at:* http://www.politico.com/story/2014/08/dot-rail-insurance-inadequate-for-oil-train-accidents-109744.html

materials on an aggressive timetable and a prohibition on introducing Canadian-banned railcars in the U.S.; and

BE IT FURTHER RESOLVED that NLC urges the federal government to require railroad companies to use alternative routes, if available, when transporting hazardous materials through or near major population centers.

CITY OF LOVELAND
HUMAN RESOURCES DEPARTMENT
Civic Center • 500 East Third • Loveland, Colorado 80537
(970) 962-2371 • FAX (970) 962-2919 • TDD (970) 962-2620

AGENDA ITEM: **2**
MEETING DATE: 10/13/2015
TO: City Council
FROM: Julia Holland, Human Resources Director
PRESENTER: Julia Holland, Human Resources Director

TITLE:
Healthstat Employee Clinic Update

RECOMMENDED CITY COUNCIL ACTION:
Information only item.

SUMMARY:
This is an information only item to update Council on the City's Employee Clinic.

BUDGET IMPACT:
☐ Positive
☐ Negative
☒ Neutral or negligible

BACKGROUND:
The Employee Clinic has been open to employees and dependents on the medical plan since April 2011. The Clinic was initially projected to achieve a full return on investment within five years of implementation, although it was expected to start providing cost savings within three years. Although at this point there is insufficient data to determine a full return on investment, this report is intended to update Council on the progress of the clinic.

REVIEWED BY CITY MANAGER:

LIST OF ATTACHMENTS:
Employee Clinic Update Presentation

Healthstat Employee Clinic

2015 Impact Analysis

healthstat
employee health clinic

Clinic Overview

- Implemented in April 2011
- Operates 30 hours per week, staffed by Physician's Assistant and Office Assistant
- Provides preventive care, acute care, laboratory services, generic prescriptions, and wellness services
- Service is provided for medical plan participants and their dependents ages 2 and up
- No out of pocket cost, fees, or copays for clinic services for participants
- Participants (employees and spouses) are required to complete a Health Risk Assessment in order to utilize clinic services

Clinic Objectives

- Reduce the cost of medical care through controlled costs for office visits, prescriptions, and laboratory services
- Reduce healthcare inflation trend to help mitigate rising cost of healthcare
- Improve employee health through health risk and disease management programs
- Increase productivity by reducing time employees spend away from work for medical care

Healthstat Return on Investment

- Assumes without Clinic the City would have a 10% increase in claim costs annually from our baseline due to trend/medical inflation
- Excludes claimants over $150k

Year	Projected Claims	Actual Claims	Claims Savings
April 2011 – March 2012	$6,523,211	$6,410,868	$112,343
April 2012 – March 2013	$7,049,787	$5,819,585	$1,230,202
April 2013 – March 2014	$8,107,255	$7,324,459	$782,797
April 2014 – March 2015	$9,330,260	$7,250,118	$2,080,142
Total	**$31,010,513**	**$26,805,030**	**$4,205,484**
ROI*	**1.74**		

**Per Healthstat Methodology – comparing total savings and program costs*

City Analysis of Clinic

- **Estimated Claims Savings**
  - Measures actual and projected claims and Rx costs versus total operating cost of clinic
- **Clinic Utilization**
  - Examines participation (employee/dependent) versus total eligible
- **Estimated Cost Diversion Savings**
  - Compares cost of a clinic visit versus the cost of a visit per our medical claims history
  - Considers the differences in the length of time employees spend away from work for a clinic visit versus Physician visit.
- **Health & Wellness Impact**
  - Examines the improvement of Risk Factors for those participants who have at least two Health Risk Assessment measurements.

Estimated Claims Costs/Savings*

- Assumes without Clinic the City would have a 7% increase in claim costs annually from our baseline due to trend/medical inflation
- Reduces claims savings by total clinic expenses

Year	Projected Claims (Cost)/Savings	Actual Claims (Cost)/Savings
2011	($158,184)	($429,225)
2012	($40,883)	$1,197,481
2013	$178,824	$195,846
2014	$608,470	($330,842)
2015	$1,050,209	($168,262) Projected

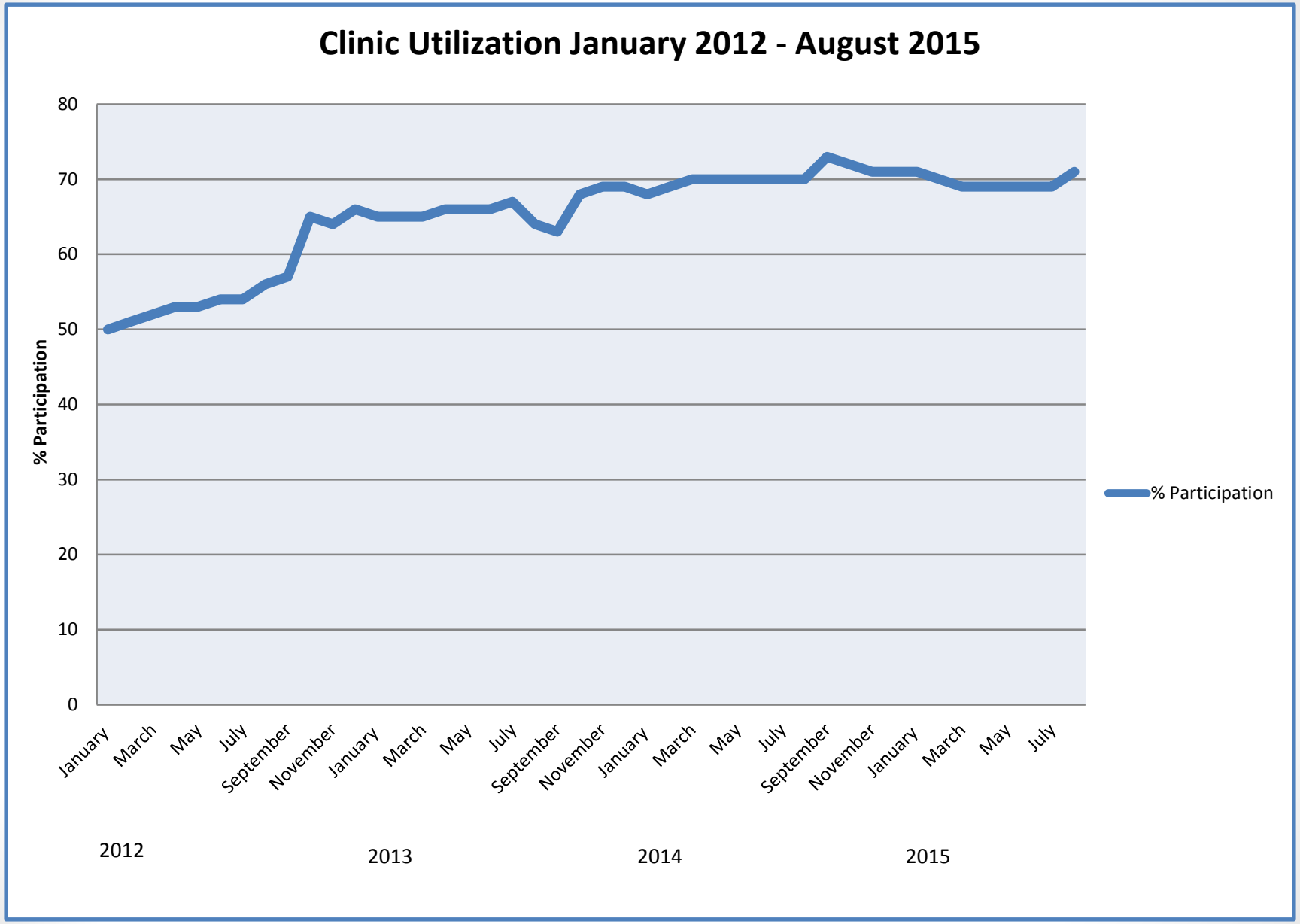
**Per City Methodology – not Healthstat*

Clinic Utilization

- Overall clinic participation is 70%, which is considered very high for a clinic that does not have a mandatory compliance program

Year	Projected Participation	Actual Participation
2011	31%	45%
2012	36%	56%
2013	41%	66%
2014	46%	70%
2015	46%	70% (YTD August 2015)

Clinic participation percentage is not by month or year; it includes total participation (employee/dependent) usage versus total eligible


Clinic Utilization January 2012 - August 2015
% Participation
80
70
60
50
40
30
20
10
0
January
March
May
July
September
November
January
March
May
July
September
November
January
March
May
July
September
November
January
March
May
July
2012
2013
2014
2015
% Participation

Cost Diversion Analysis (2014)

- Physician Visits
  - Estimated average cost of a visit per Medical Claims $146.03*
  - Estimated average cost of a clinic visit $126.39**
  - Total cost of clinic per visit $149.50***
- Lost Time Savings
  - Average physician office visit takes 2 hours including travel time
  - Clinic office visit takes 30 – 45 minutes including travel time
  - Estimated lost time work savings of 1.5 hours per visit
  - Per 2,948 visits, estimated work hours saved equals 4,422 hours
  - Estimated lost work time saving equals $130,758.84

**Per historical claims data*
***Clinic costs/number of visits*
****Clinic costs/number of visits – Includes labs/Rx*

Wellness Impact (2014) Risk Factor Changes

Risk Factors	• The number of low risk Participants (0 risk factor) increased by 7%. • The number of high risk Participants (4+ risk factors) decreased by 13%.
Improved Health	• 122 (30%) Participants decreased their number of risk factors from 2011 to 2014.
Maintained Health	• 183 (45%) Participants maintained their number of risk factors from 2011 to 2014.
Declined Health	• 99 (25%) Participants increased their number of risk factors from 2011 to 2014.

Wellness Impact (2014) High Risk Participants

Illustrates improvement in all 8 measured risk categories within top 20% of high risk patients/participants.

# Risk Factors	• Improved by 33%
Total Cholesterol	• Improved by 6%
LDL Cholesterol	• Improved by 10%
HDL Cholesterol	• Improved by 15%
Systolic Blood Pressure	• Improved by 10%
Diastolic Blood Pressure	• Improved by 8%
Triglycerides	• Improved by 16%
Glucose	• Increased by 3%
BMI	• Increased by 1%

Summary

- Cost reduction/control
  - The savings as calculated by the Healthstat method demonstrates we are receiving a return on our investment
  - After 5 years of experience the return on investment analysis is considered to be fully credible (April of 2016)
  - After 5 years it is expected the city will have cost savings, equal to 50% of trend
  - Recent claims experience driving reduction in City's methodology for ROI
  - Compliance program is expected to drive higher participation and ROI
- Employee satisfaction/wellness
  - Valued benefit – can assist with recruitment and retention
  - Significant impact in several situations for employee health and well-being
  - Compliance program is expected to increase positive results in risk factor movement and disease management

QUESTIONS OR COMMENTS?