Montana Department of Environmental Quality

September 30, 2015

FINDING OF NO SIGNIFICANT IMPACT

TO ALL INTERESTED GOVERNMENTAL AGENCIES AND PUBLIC GROUPS

As required by state and federal rules for determining whether an Environmental Impact Statement is necessary, an environmental review has been performed on the proposed action below:

Project	City of Shelby –Stormwater Improvements Project
Location	Shelby, Montana
Project Number	WPCSRF Project # C301283
	Total Cost - $7,501,423

Shelby, through its May 2012 Preliminary Engineering Report (PER) and October 2014 Plan and Specification submittal, prepared by KLJ (engineer), has identified the need to make improvements to stormwater collection and conveyance to the ephemeral drainage just south of the existing city wastewater treatment ponds. The existing stormwater piping within the community is undersized, results in standing water and mosquito breeding in ditches and impoundments and has resulted in flooding along the Front Street location adjacent to the Amtrak Depot during past storm events.

The purpose of the project is to provide a new stormwater collection and conveyance system within the community to prevent flooding of areas near Front Street and other locations, prevent ponding that results in mosquito breeding and general health and safety concerns associated with inadequate storm drainage facilities.

Several areas of the proposed storm water improvements are located within 100 feet of potential contaminant sources (PCS's). A review performed by DEQ identified leaking underground fuel storage tanks, a state superfund site, an inactive hazardous waste handling facility and the Burlington Railroad as PCS's. It is possible that the contractor for this project could encounter petroleum-impacted soils during performance of the work. The project documents will be modified to require the contractor to contact DEQ in that event to develop an appropriate response should contaminants be encountered.

The DEQ and DNRC are proposing to fund the project with State Revolving Fund low interest loan funds at the county's request. Of the environmentally sensitive characteristics analyzed, which included wetlands, floodplains, historical sites, and threatened or endangered species, only wetlands are expected to be adversely impacted as a result of the proposed project. A wetland mitigation project is being proposed in conjunction with the project to offset the impact to wetlands associated with this work and work associated with the improvements proposed at the wastewater treatment ponds. The wetland mitigation work must be permitted or approved as appropriate by the Army Corp of Engineers prior to the work.

An environmental assessment (EA), which describes the project and analyzes the environmental impacts in more detail, is available for public scrutiny on the DEQ web site

(**http://www.deq.mt.gov/ea.mcpx**) and at the following locations:

Terry Campbell, P.E.
Department of Environmental Quality
1520 East Sixth Avenue
P.O. Box 200901
Helena, MT 59620-09011
tcampbell@mt.gov

Larry Bonderud, Mayor
City of Shelby
112 1st Street South
Shelby, MT 59474

Comments on the EA may be submitted to the Department of Environmental Quality at the above address. After evaluating substantive comments received, the department will revise the environmental assessment or determine if an environmental impact statement is necessary. If no substantive comments are received during the comment period, or if substantive comments are received and evaluated and the environmental impacts are still determined to be non-significant, the agency will make a final decision. No administrative action will be taken on the project for at least 30 calendar days after the date of this notice of the Finding of No Significant Impact.

Sincerely,

Todd Teegarden

Todd Teegarden, Bureau Chief
Technical and Financial Assistance Bureau

CITY OF SHELBY
STORM WATER FACILITY IMPROVEMENTS

ENVIRONMENTAL ASSESSMENT

I. PROJECT SUMMARY INFORMATION

A. PROJECT IDENTIFICATION

Name of Project:	Storm Water Facility Improvements
Applicant:	City of Shelby
Address:	112 1st Street South Shelby, MT 59474
DEQ Project Number:	C301283

B. CONTACT PERSON

Name:	Larry Bonderud, Mayor
Address:	112 1st Street South Shelby, MT 59474
Telephone:	(406) 434-5222

C. ABSTRACT

The City of Shelby in a May 2012 Preliminary Engineering Report (PER) and within design plans and specifications dated October 2014, prepared by KLJ, has identified the need to upgrade the storm water facility serving the community. The existing storm water facility in Shelby is generally made up of paved curb and gutter streets that convey storm water to storm water inlets or ditches. There are minimal detention facilities included as part of this system which are limited to some of the newer commercially developed areas. The storm water facility does not include a pumping station or treatment facilities. All of the storm water runoff from the city is conveyed to the dry unnamed tributary of the Marias River. The Marias River is located approximately 6.5 miles south of the city.

The improvements are necessary to properly convey storm water from portions of the community in a manner to better prevent flooding and standing water issues. Specifically, the PER identified flooding that occurred in the spring of 2011 along Front Street and the BNSF mainline, which is an Amtrak passenger train route. In 2011 Front Street and the mainline were closed during this flooding event. The depth of water running over Front Street was estimated to be in excess of 2 feet, posing a safety concern for the travelling public and for the businesses and homes in the area. Other areas have had storm water backing up into homes and businesses resulting in property damage that also need to be addressed according to the PER.

There are a number of identified potential contaminant sources within the proposed construction areas. These include State Superfund (CERCRA) sites; underground fuel storage tanks and leaking underground fuel storage tanks; an inactive hazardous waste handler; the BNSF railroad; drainage ditches and municipal sewer lines. It is possible the contractor for this project could encounter contaminated (especially petroleum-impacted) soils during the work. In the event contamination is encountered, the contractor will be required to immediately report the event to MDEQ and a proper course of action would be determined at that time dependent on the contaminant encountered.

Major storm water infrastructure improvements include:

- Approximately 22,000 lineal feet of new storm main and connection storm drains throughout the city along US 2 / Front Street, Oilfield Avenue, Sheridan Street, Sheridan Avenue, Granite Avenue, Galena Street, West Dawson Avenue, Rosebud Street, 6th and 7th Street South and within undeveloped areas along Alder Avenue.
- Approximately 121 manholes, 158 catchment basins, associated curb and gutter work and pavement replacement throughout these street locations.
- Approximately 4,000 lineal feet of re-graded and improved storm drainage channels within southeast Shelby adjacent to US 2 and the BNSF railroad.
- Approximately 800 lineal feet of re-graded ditches and culverts at road approaches along US 2 west of the interstate overpass in front of the commercial business areas at that location.
- Miscellaneous detention pond grading improvements.
- Wetland enhancement work downstream of the storm water improvements, south of the city, as wetland mitigation in compliance with the Army Corp of Engineers requirements.
- Four alternate bid items were included in the design, which include storm water improvements in the Heights area, along 1st Street and two separate areas along Dawson Street as depicted in Figure 5 at the end of this report. These portions of the project will be awarded if they can be funded within the approved city budget for the project.
- The work within the 1st Street South to collect and convey high groundwater to the storm water outfall location is one of the alternate bid items that may be awarded if bids are within the city budget.
- Additional work within the Dawson Street area identified as a lower priority as two alternate bid units, that may be awarded if bids are within the city budget.

The cost estimate for the proposed improvements is $7,501,423, which includes construction, engineering, and administrative costs. The city has secured grants from the Treasure State Endowment Program (TSEP) for $625,000 and the Montana Department of Transportation, Partnership grant for $334,316. The balance of approximately $6,542,107 will be covered with a 30-year, 2.5% interest rate loan from DEQ's State Revolving Fund program to finance the work. The expected impact to users will be in the form of a new storm water enterprise fund within the planning area. Historically storm water improvements within the city have been funded out of the wastewater account administered by the city. The new storm water fund is to be proposed to residents, heard publically and adopted by the city council prior to loan closing. Currently estimated rates are $20 per month for residential customers, $45 per month for commercial customers and a $0.015 per square foot per year fee for empty lots. If approved, these fees would be used for debt service and maintenance of the storm drainage system.

Of the environmentally sensitive characteristics such as wetlands, floodplains, threatened or endangered species and historical sites, only existing ditch wetlands will be impacted as a result of the proposed project. A wetland mitigation plan is included that will be permitted by the US Army Corp of Engineers to offset the minor ditch impacts. Additional environmental impacts related to land use, water quality, air quality, public health, energy, noise, and growth were also assessed. No significant long-term environmental impacts were identified.

DEQ's Technical and Financial Assistance Bureau, has prepared this Environmental Assessment to satisfy the requirements of the Montana Environmental Policy Act (MEPA) and the National Environmental Policy Act (NEPA).

D. COMMENT PERIOD

Thirty (30) calendar days.

II. PURPOSE OF AND NEED FOR ACTION

The current Shelby storm water collection and conveyance system includes areas where paved streets with curb and gutter systems are used to carry storm runoff away from the community. It also includes areas supported by storm drain piping that are undersized even for a flood event with a 2-year return frequency. Historically some of the storm water was carried away from the city proper via leaking sanitary sewer mains. In 2009-10, a large portion of those leaking sanitary sewers were repaired and replaced to reduce the infiltration of storm water into the sewer collection system. The city's storm water infrastructure is not as old as some of the city water and sewer piping, but is old relative to normal storm drain life expectancy and is not adequate to protect all areas of the community from flooding and property damage. The storm water facilities were evaluated by TD&H in the early 1980's, but most of the recommended improvements in that evaluation were not implemented.

Storm drainage areas within the community were defined within the PER to evaluate and enable planning for individual drainage basins. (Refer to Figure 2 at the end of this document for a depiction of the storm drainage areas analyzed in the PER). Problem areas within each of those drainage areas are summarized here:

S1 Drainage Area – The S1 drainage area is primarily comprised of the portion of the community southwest of the interstate overpass. Storm water from this area is conveyed by drainage ditch along US Highway 2 and flowing northeast, which contributes to the flooding that mainly occurs in drainage area S2. The ditches in this area are overgrown, do not properly convey storm water and result in stagnant pools.

S2 Drainage Area - Flooding along Front Street and the BNSF mainline, which are documented in the PER to occur regularly, impact the community and businesses within these areas. Front Street and the BNSF mainline were closed during a 2011 flooding event. The suspected cause was inadequate pipe capacity of the two 24" pipes running under the BNSF railroad bed (further referenced as pipe G within this report as shown in Figure 3) situated in front of Taylors True Value. Also, water regularly runs over Front Street at this same location. An analysis of the two 24" pipes under the tracks supports that storm events of a return frequency of less than two years can generate flows of almost twice what these pipes can convey. Storm water also has been documented to flood streets within the western portions of the community to the south of Highway 2 due to a drainage gulch that flows onto streets within this area. The drainage gulch contains three depressions that retain storm water. Those depressions spill out onto streets over a short period after storm events and all of this flow eventually reaches the Front Street area. Some year-round storm water retention in these three depressions becomes stagnant and presents a health and safety concern. Complaints from residents in that area related to mosquito breeding have been received by city staff.

S3 Drainage Area - Minor property damage has occurred to the businesses situated south of Main Street due to inadequately sized storm drain inlets and piping. Additionally, minor flooding due to the lack of storm drain infrastructure is documented to occur at the southern-most portion of the community.

S4 Drainage Area - The majority of the runoff from this region of the community is collected and conveyed in the paved streets generally flowing to the north to a low point that is located approximately 165 feet east of the intersection of Ash Avenue and 6th Street South. The city has excavated a drainage ditch at this location in an effort to drain the storm runoff from the streets.

S5 Drainage Area - The ditches within this southeast portion of the community convey all of the runoff from the city to the unnamed tributary near the wastewater treatment ponds. They are overgrown with vegetation and are poorly graded, which leads to slow drainage and standing water after storm events creating additional health and safety concerns.

N1 Drainage Area - The area north of Highway 2 and west of Oilfield Avenue has no storm drainage piping or inlets with the exception of a 48" pipe (further referenced as pipe P within this report and shown in Figure 4) located at the lowest point in the drainage area. The evaluation performed and contained in the PER shows this pipe is severely undersized to handle even a 2-year return frequency storm event. According to city officials this undersized pipe had resulted in flooding problems in the past that include property damage to some of the homes located directly upstream and downstream of the low point.

N2 Drainage Area - The area of the community north of Highway 2 and east of Oilfield Avenue is also connected to the same 48" conveyance pipe P from drainage area N1 that becomes inundated during very routine storm events and results flooding of Fergus Street and streets downstream all the way to the east side of the city where the runoff enters the drainage ditch in the S5 drainage area.

III. PRIORITIZATION AND ALTERNATIVES CONSIDERED

Within the 2012 PER there was a prioritization of needs and alternative screening performed for each of the prioritized areas. Top priority was given to the problems that if corrected would have the largest positive public health and safety impact on the entire city, including those areas downstream of the project. Once three priority groups (P1, P2 & P3) were established, various alternatives were reviewed for each priority group. These priority areas are described below:

Prioritization:

P1 – The main priority is to address issues with drainage areas S1, S2 and S5. In summary the main problems include:

- Undersized pipe G causes regular flooding near the 7th Avenue North and 6th Avenue North intersections with Front Street.
- Inadequate inlet capacity causes streets to become inundated during runoff events.
- Drainage area S2 is also a main contributor to the runoff experienced at pipe P, which is severely undersized and causes flooding problems downstream.
- Existing detention ponds not functioning correctly, causing stagnant water and breeding of mosquitoes.
- Ditch vegetative cover and lack of uniformity and grade with drainage areas S1 and S5.

P2 – The second priority is to address issues with drainage areas N1 and N2. In summary the main problems include:

- Undersized pipe P causing flooding upstream of the pipe in the area located south of Sheridan Street and west of Oilfield Avenue overpass. With the priority one (P1) improvements selected for additional analysis the runoff experienced at pipe P would be greatly reduced, improving the flooding problems encountered in the N1 and N2 drainage areas.
- Undersized storm drainage infrastructure located in drainage area N2 causing flooding generally located directly downstream of pipe P.
- Inadequate inlet capacity causing streets to become inundated during runoff events.

P3 – The third priority is to address the drainage issues associated with drainage areas S3 and S4. The S3 improvements would involve approximately 660 lineal feet of new groundwater collection piping to reduce flooding of building basements and crawl spaces within the 1st Street South area between 4th and 2nd Avenue South. The main problems with drainage area S4 include:

- The lowest elevation of the drainage area is located in a residential area that is only partially

developed, but is the most likely area for future residential development. There is currently no storm drainage in place to address runoff in much of this area.

- Water sits in the low area just off of the existing streets and adjacent to private homes and becomes stagnant and breeds mosquitoes. The mosquito problem is significant enough that the city currently sprays them during the summer months.

Alternatives Considered:

Under Priority 1, there were four alternatives considered within the 2012 PER. They are summarized as follows:

P1-A: NO ACTION – This alternative consists of taking no action to correct flooding associated with priority P1, disregarding the health and safety concerns associated with the problems described in these areas. The goal of this project is to decrease the potential for dangerous flooding in the area in an effort to better protect the public. This alternative does not achieve the goal. Therefore taking No Action was not considered viable and is not further considered.

P1-B: INCREASE PIPE CAPACITY OF PIPE G – This alternative consists of increasing the size of pipes that convey water beneath the railroad tracks from the area of concern to the north side of the tracks, which is within the south end of drainage area N2. It is feasible to increase the capacity of the crossing by upsizing the existing pipes, or adding additional pipes beneath the railroad tracks. This alternative does not include upsizing of the pipes downstream of this railroad crossing to handle the additional flows. The goal of this project is to decrease the potential for dangerous flooding in the area in an effort to better protect the public. This alternative does address the immediate problem experienced in the area but by increasing the capacity of pipe G, the flooding issues downstream are compounded. This alternative does not achieve the goal, therefore this alternative P1-B was not further considered.

P1-C: EXTEND EXISTING STORM DRAINAGE INFRASTRUCTURE – This alternative consists of extending the existing storm water infrastructure in Front Street further to the northwest to include the area around the undersized pipe G. To obtain inlet capacity the infrastructure would be extended to the intersection of Front Street and Marias Valley Road. With this alternative the flow through pipe G would be drastically reduced to almost no flow at all during normal runoff events therefore reducing the flooding events that occur in front of the True Value store and across Front Street at the BNSF mainline. This alternative also reduces flow received by pipe P on the north side of the tracks, thus reducing the potential for flooding downstream. With implementation of this alternative the pipe P drainage area would be reduced from approximately 928 acres to 510 acres. This alternative would also include installation of storm drainage infrastructure along 1st Street North to its intersection with 12th Avenue North and infrastructure would also be added in the downtown area. To accommodate the additional flow existing piping would be replaced with upsized piping. This alternative does achieve the goal, therefore is further considered.

P1-D: EXPAND STORM DRAINAGE INFRASTRUCTURE – This alternative would be the same as P1-C but would incorporate a new storm water trunk line in Front Street. This configuration would take advantage of the existing storm water infrastructure while upsizing to accommodate for the extra capacity that the existing system cannot provide. Like alternative P1-C, this alternative would drastically reduce the flow through pipe G to almost no flow during normal runoff events. This would significantly reduce the flooding that has historically occurred in front of the True Value and BNSF mainline. Reducing the flow through pipe G also improves the operation of pipe P on the north side of the tracks. This alternative would also include re-grading of the storm water ditches within areas S1 and S5 to improve conveyance and reduce the standing water issue that currently occurs in these locations. Flooding downstream of pipe P is thus reduced as well. With implementation of this alternative the pipe P drainage area would be reduced from approximately 928 acres to 510 acres. This alternative does

achieve the project goal, therefore is further considered.

Under Priority 2, there were three alternatives considered within the 2012 PER. They are summarized as follows:

P2-A: NO ACTION – This alternative consists of taking no action to correct flooding concerns located within drainage areas N1 and N2. With the P1-C and P1-D improvements discussed above a portion of the flooding concerns associated with drainage areas N1 and N2 will be improved. However, this alternative does not directly address many of the problems associated with the N1 and N2 drainage and therefore does not achieve the goal of this project is to decrease the potential for dangerous flooding in the area in an effort to better protect the public. Therefore taking No Action was not considered viable and is not further considered.

P2-B: N2 DRAINAGE AREA TRUNK-LINE – This alternative consists of installing trunk-line through the south end of the N2 drainage area (510 acres). Currently the existing infrastructure experiences runoff from S1, S2 and N1 drainage areas (928 acres), therefore if the Priority 1 improvements are made before this alternative, there will still be some benefit toward reducing flow received at this location, but this trunk line is still needed, but as a lower priority. This alternative helps to achieve the project goals, therefore is further considered.

P2-C: N2 DRAINAGE AREA INLET CAPACITY – This alternative consists of extending storm drainage infrastructure throughout the N2 drainage area in an effort to minimize the amount of runoff that accumulates in the streets before reaching the downstream end of the city. This alternative would best be implemented in combination with the P2-B. This alternative helps to achieve the project goals, therefore is further considered.

Under Priority 3, there were three alternatives considered within the 2012 PER. They are summarized as follows:

P3-A: NO ACTION - This alternative consists of taking no action to correct flooding concerns located in the S4 drainage area. The S4 drainage area is the most likely location to accommodate additional residential development in the future. Of all of the drainage areas discussed in this report this area has the highest potential for immediate growth. If implemented, improvements within the S4 Drainage area may not be eligible for SRF financing due to the undeveloped nature of this area. When the low lying area and its corresponding drainage area are developed it is likely even a small runoff event will cause property damage and potentially health and safety concerns for any new developed properties in this area. Therefore taking No Action was not considered viable and is not further considered.

P3-B: DRAIN LOW AREA TO THE SOUTH – This alternative consists of installing the storm drainage infrastructure to drain the low lying area of the S4 drainage area to the south. This alternative would drain the S4 area most likely to experience immediate growth. The storm drains would be constructed within future street right-of-way areas and sized to handle existing and future storm events. If implemented, improvements within the S4 Drainage area may not be eligible for SRF financing due to the undeveloped nature of this area. This alternative would address the problems associated with the S4 drainage area, so is further considered.

P3-C: DRAIN LOW AREA TO THE EAST – This alternative consists of installing the storm drainage infrastructure to drain the low lying area of the S4 drainage area to the east. This alternative would drain the S4 area onto the streets within the S3 drainage area, potentially posing a health and safety concern. The S3 drainage area is sloped toward the northeast toward Front Street. If implemented, improvements within the S4 Drainage area may not be eligible for SRF financing due to the undeveloped nature of this growth area. Using this alternative could increase the potential of flooding within the Priority 1 Front Street area. Because of these possible impacts, this alternative does not achieve the project goal and is

not further considered.

IV. COST COMPARISON FOR ALTERNATIVES USING PRESENT WORTH ANALYSIS

Present worth analysis is a method of comparing alternatives in present day dollars and is used to determine the most cost-effective alternative. An alternative with low initial capital cost may not be the most cost efficient project if high monthly operation and maintenance costs occur over the life of the alternative. Summaries of the present worth analyses for feasible treatment alternatives are provided in Table 1. These cost estimates were presented in the 2012 Preliminary Engineering Report for Shelby. An interest rate of 6% over the 20-year planning period (Design Year 2036) was used in the analysis.

TABLE 1 - ECONOMIC EVALUATION OF ALTERNATIVES

ALTERNATIVE	Present Worth Capital Cost	Increased O&M Cost (Annual)	O&M Present Worth Cost	Total Present Worth Cost
(PRIORITY 1 ALTERNATIVES)				
P1-C: EXTEND EXISTING STORM DRAINAGE INFRASTRUCTURE	$3,622,425	$0 [3]	$0 [3]	$3,622,425
P1-D: EXPAND STORM DRAINAGE INFRASTRUCTURE	$3,363,840	$0 [3]	$0 [3]	$3,363,840
(PRIORITY 2 ALTERNATIVES)				
P2-B: N2 DRAINAGE AREA TRUNK-LINE	$1,223,337	$0 [3]	$0 [3]	$1,223,337
P2-C: N2 DRAINAGE AREA INLET CAPACITY	$1,188,793	$0 [3]	$0 [3]	$1,188,793
(PRIORITY 3 ALTERNATIVES)				
P3-B: DRAIN LOW AREA TO THE SOUTH[4]	$548,758	$0 [3]	$0 [3]	$548,758

1 All capital and present worth costs presented include engineering, bond reserves, contingency & administrative costs.
2 Costs presented are estimates based on the PER and are included here for information purposes only.
3 This alternative is not projected to increase the facility O&M costs in the PER, so $0 was used as the O&M increase.
4 This alternative may not be eligible for SRF financing due to the growth related nature of this portion of the project.

V. BASIS OF SELECTION OF PREFERRED ALTERNATIVE

Selection of preferred alternatives was based upon screening of priorities and associated alternatives (as discussed in III. and IV. above) and the rating of those alternatives as described in A below.

A. SELECTED ALTERNATIVES

Within the 2012 PER there was a comparison analysis of alternatives to rate them based on 1) benefit to public health and safety; 2) financial feasibility; 3) environmental impact and 4) city priority. Financial feasibility was given the most weight. Table 2 below summarizes these rankings.

TABLE 2 – ALTERNATIVE COMPARISON ANALYSIS

Priority	Alternative	Public Health & Safety		Financial Feasibility		Environmental Impacts		Priority of City		TOTAL
		Weight Factor: 5		Weight Factor: 10		Weight Factor: 5		Weight Factor: 4		
		Score	Weighted Score	Score	Weighted Score	Score	Weighted Score	Score	Weighted Score	
1	P1-C	5	25	3	30	2	10	5	20	85
	P1-D	5	25	4	40	2	10	6	24	99
2	P2-B	3	15	5	50	2	10	1	4	79
	P2-C	2	10	6	60	2	10	2	8	88

The city has identified needed storm water improvements and projected the cost impact to users. The total project cost is $7,501,423 based on bids received in November 2014. This includes engineering, administrative and construction costs associated with awarding all of the recommended alternatives. The city has received grants for $625,000 from the Treasure State Endowment Program and $334,316 from the Montana Department of Transportation for project construction. The amount the city is proposing to borrow is $6,542,107. The city proposes to fund the project with a 30-year, 2.5% interest rate loan from DEQ's Water Pollution Control State Revolving Fund program. The city will provide loan repayment coverage with implementation of a storm drainage utility rate structure currently

proposed at $20 per month for residential properties and $45 per month for commercial properties. There would also be an assessment of $0.015 per square foot per year on undeveloped lots. The details of this rate structure are being developed and will be proposed in future public hearings during the adoption process. Ultimately, the city council will need to vote to adopt a rate structure adequate to repay any loans used to fund the project.

Alternative P1-D was chosen over other priority one alternatives based on the comparison analysis. Also, alternative P2-B and P2-C were chosen as selected alternatives due to the comparison analysis, but also because they further the goal of reducing street ponding and use of streets to convey storm water. Alternative P3-B was not included in the Comparison Analysis within the PER, but was chosen by the city due to the need to collect storm water from this area prior to it reaching the Front Street areas via surface runoff. This area is identified within the PER as the most likely area for future growth within the community, so the proposed improvements would be installed within right-of-way areas and would allow for future development. This alternative may not be eligible for SRF financing due to the undeveloped nature of this area.

It was determined the lower priority P2-B, P2-C and P3-B alternatives would be included within the design and be bid as project additive alternates. In that manner if bids came in within budget the city would have the flexibility to have this work completed along with the highest priority work along Front Street.

VI. AFFECTED ENVIRONMENT

A. PLANNING AREA & MAPS

The City of Shelby is located in northern Montana just south of the Canadian border on Interstate 15 (see Figure 1). The proposed storm water service area is shown in Figure 2. The service area includes residential homes, vacant lots, commercial businesses, and public entities. The proposed storm water improvements are shown in Figures 3 – 5. The project will involve excavation within both paved and unpaved areas, installation of new and up-sized drainage pipes, manholes, catchment basins, curb and gutter improvements and pavement replacement where needed. Construction for the proposed new storm water improvement requires completion prior to October, 2016 within the current design specifications. So work would most likely be started fall 2015 if the city is able to stay on the proposed schedule.

B. FLOW PROJECTIONS

The proposed new storm water improvements have been designed to meet Montana Department of Transportation criteria and DEQ Circular DEQ-8 standards where applicable as follows:

- Community evacuation routes were designed for a 25-year flood frequency (this includes the Front Street corridor).
- Interstate highway crossing areas were designed for a 50-year flood frequency. This applies at the ditch passing under the interstate overpass.
- Other areas were designed for a 10-year storm return period.
- Both the rational method and regression analysis were performed within the PER and during the design phase to ensure the flood events predicted were consistent with these two differing design approaches and it was confirmed that the design numbers were consistent.

Based on runoff calculations contained with the 2012 PER, the existing drainage basins that were evaluated have the following flow contributions during the 2-year and 10-year design storm events respectively and were then rated for inlet capacity as either "good" or "bad":

Drainage Area	Basin Size (acres)	2-year Storm	10-year Storm	Rating
S2	418	149cfs or (55,681gpm)	257cfs or (96,041gpm)	Bad
S3	89	112cfs or (41,854gpm)	193cfs or (72,124gpm)	Bad
S4	201	*	*	NA*
N1	510	89cfs or (33,259gpm)	153cfs or (57,176gpm)	Bad
N2	209	132cfs or (49,328gpm)	227cfs or (84,830gpm)	Bad

* Drainage Area S4 is designed to flow south away from the main Front Street area collection system, therefore, storm flows were not presented as contributing to downstream infrastructure within the PER.

In addition to the drainage areas, the individual storm drains within the community were also evaluated under 2-year and 10-year storm events. Of the 22 individual storm drains evaluated, only 4 were rated as "good" and the remaining 18 were rated "bad" with respect to serving these 2-year and 10-year storm events.

Storm water collected will continue to discharge to Medicine Rock Coulee via the improved ditch structure along Front Street and the BNSF railway in a southeasterly direction to a point just adjacent to the wastewater treatment lagoons, where it will reach the natural drainage channel outfall.

C. NATURAL FEATURES

The existing city storm water system consists of a central collection system, ditches and street channelization toward the discharge to Medicine Rock Coulee. Medicine Rock Coulee is classified as an ephemeral drainage to the Marias River. Medicine Rock Coulee drainage is not known to support fish populations, but does support other aquatic species on a periodic basis. Seasonally, during wet periods, Medicine Rock Coulee drainage reaches the Marias River, which is classified as a B-2 stream according to the Montana Water Use Classification, ARM 17.30.610. Waters classified as B-2 are suitable for drinking, culinary, and food processing purposes after conventional treatment. It is also considered suitable for bathing, swimming and recreation; growth and marginal propagation of salmonid fishes and associated aquatic life, waterfowl, and furbearers; and agricultural and industrial water supply. This reach of the Marias River has not been identified to have any use impairments, however all assessment work has not been completed and the total maximum daily load (TMDL) has not been developed for this stream segment.

Community topography is steeply sloping toward the Front Street corridor, then gently sloping to the southeast following the BNSF railway alignment. The topography results in storm water inundation within the Front Street roadway and other low points within the community.

USDA soils mapping of the project area reflects that site soils are primarily Kobase silty clay loam, Vanda silty clay, Bascovy clay loam, Phillips-Elloam clay loams and Ferd-Creed-Gerdrum complex soils. These are generally all well-drained soils with varying degree of permeability but otherwise very similar characteristics.

Groundwater within the community is seasonally very high and contributes to runoff. It is likely excavation will occur within the groundwater table in some areas. Any dewatering would require that a permit be obtained for storage, treatment, and disposal of water from dewatering efforts.

VII. ENVIRONMENTAL IMPACTS OF PROPOSED PROJECT

A. DIRECT AND INDIRECT ENVIRONMENTAL IMPACTS

1. Land Use –The work will be performed within US 2 right-of-way and other properties owned or within easement of the city and will not change existing land use. Wetland mitigation is required

and that work will require procurement of adjacent land suitable for wetland replacement work. The city is proposing to build a 16.1 acre constructed wetland as an additional city owned property located to the south of the existing city wastewater treatment ponds. This site is currently undeveloped land covered in native and field grass and bordering the ephemeral drainage that receives the city's storm water and wastewater discharge. None of the improvements will impact prime farmland.

2. Floodplain – The proposed project is located within partially mapped floodplain according to the FEMA Floodway Maps and State of Montana Department of Natural Resources and Conservation floodplain management section. Medicine Rock Coulee is a natural floodway that seasonally carries storm runoff to the Marias River. The proposed project is not anticipated to create floodplain impacts, but floodway permitting will be addressed with the local Floodplain Manager as needed.

3. Wetlands – Storm drainage ditches both west of the interstate overpass and southeast along Front Street and the BNSF railway have marginal wetland status. Due to the combination of the proposed re-grading of these ditches to better handle storm water and prevent ponding and stagnation issues the city has proposed to enhance wetlands downstream of the storm water and wastewater treatment pond outfalls. The city is working with the ACOE, Omaha District office to identify a mitigation approach within the ACOE administered permitting process. That mitigation work may take the form of fees paid to a mitigation bank for use by the ACOE at another wetland enhancement site, or wetland replacement near the project site if that approach is deemed appropriate by the ACOE permitting process. Wetland mitigation will need to be completed in compliance with any permit issued and a CWA Section 318 authorization will also need to be secured from DEQ for this mitigation plan. Details for that wetland work are proposed within the planning documents as bid item. The validity of this bid item will need to be vetted through the ACOE to ensure it will meet the objectives of the mitigation work deemed appropriate through that office prior to an award of a construction contract.

4. Vegetation – Vegetation within the project site generally consists of weeds with the exception of the wetland vegetation within the ditches that would be re-contoured as a part of the project. The Montana Natural Heritage Program listed no plants of concern within immediate proximity.

5. Cultural Resources – According to the Montana State Historic Preservation Office (SHPO), the culturally significant sites previously identified within the planning area are all structures. Within the storm water improvements alignment no properties or structures on or eligible for the National Register of Historic Places will be disturbed. An on-site cultural inventory may be required during any land acquisition or wetland permitting stage of the project. SHPO concluded there is a low likelihood cultural properties will be impacted.

6. Fish and Wildlife – The US Fish & Wildlife Service listed one mammal on the endangered species list (Black Footed Ferret) and one candidate bird species (Sprague's Pipit) within the project area. The agency further states in their comment letter that they do not anticipate adverse effects to threatened, endangered, candidate species, or critical habitat to result from implementation of the proposed project.

7. Water Quality – Water quality will improve due to the proposed project as will public health protection associated with exposure to standing water under current conditions. The proposed project will remove storm runoff from residential and commercial areas more rapidly, but allow for settling of solids prior to discharge in critical areas. Mosquito breeding and fecal coliform numbers associated with standing water after storm events would be expected to diminish due to the improvements.

The storm water contribution to Medicine Rock Coulee was channelized around the wastewater

lagoons to the west and converges with effluent flow approximately 450 feet downstream of the lagoon outfall in a wetland area. This channel only flows in response to precipitation events. From the wetland area below the lagoons, Medicine Rock Coulee reforms into a sinuous channel that joins the Marias River approximately six geographical miles to the south.

The Marias River at the junction of Medicine Rock Coulee is listed on the 1996 303(d) List. Probable impaired uses include aquatic life support, cold water fishery-trout, drinking water supply, recreation, and swimmable. Probable causes of impairment are nutrients, salinity/TDS/chlorides, thermal modifications, and pH. Probable impairment sources are agriculture, irrigated crop production, and natural sources. The steam segment was reassessed in August 2006 and all beneficial uses were determined to be fully supported. This reach is not listed on the 2012 303(d) List and no longer requires a TMDL because no pollutant-related use impairment is identified. Since Medicine Rock Coulee is ephemeral and the storm water enters six geographical miles upstream of the Marias River, it is not expected to impact water quality.

8. Air Quality – Short-term negative impacts on air quality will occur during construction from heavy equipment in the form of dust and exhaust fumes. Proper construction practices will minimize this problem. Project specifications will require dust control.

9. Public Health – Public health and safety will benefit from the project. The proposed improvements will prevent ponding water and stagnation issues that have been documented to result in mosquito breeding and complaints within the community. The storm water improvements will reduce the risk currently posed by breeding mosquitos and pathogens in runoff as well as minimize private propery damage in flood prone areas.

10. Energy – In the long-term, an increase in energy consumption is not anticipated as a result of these storm water improvements. There will be short term energy consumption associated with construction activity primarily in the form of fuel consumption and increased boarding at local motels and other businesses, but that is not expected to be adverse.

11. Noise – Short-term noise impacts may occur during construction. Construction will be limited to normal day-time hours to avoid early morning or late evening construction disturbances. In the long-term, noise levels associated with the storm water improvements will be the same as they are currently.

12. Growth – Growth within the City of Shelby was in decline within the recent past, but energy and railroad associated development has led to ups and downs in building starts and occupancy in the immediate area. The city has provided for reasonable growth within the design life of the proposed project.

    Improvements to the storm water collection and conveyance system will be a positive feature for the community and will help control and prevent flooding in the low-lying areas of the community. Improvements to this infrastructure may encourage development of land that is frequently flooded, possibly resulting in secondary impacts that are associated with the growth of the community. This project would allow the city to manage its growth in a proactive manner and promote urbanization within its service area. Secondary impacts may include impacts to: housing, commercial development, agriculture lands, transportation, and utilities.

13. Cumulative Effects – No significant adverse cumulati ve impacts are anticipated.

14. Environmental Justice – Environmental Justice Executive Order 12898: The proposed project will not result in disproportionately high or adverse human health or environmental effects on minority or low income populations. The economic impact will ultimately affect all of the users of the system

because of the increase in service costs due to the project costs. However, no disproportionate effect among any portion of the community is expected.

15. Wild and Scenic River – No wild and scenic rivers will be impacted.

B. UNAVOIDABLE ADVERSE IMPACTS

Short-term construction related impacts (i.e., noise, dust, traffic disruption, etc.) will occur but should be minimized through proper construction management. Energy consumption during construction primarily due to fuel consumption and short-term cannot be avoided.

VIII. PUBLIC PARTICIPATION

Presentations on the draft Preliminary Engineering Report (PER) and a public meetings were held on 4/2 and 4/16/2012. A final meeting of the city council to adopt a resolution accepting the project budget and a rate hearing will need to be completed prior to project award and any loan closure. The presentations and public meetings held in 2012 were at city hall, where the engineer presented an overview prior to soliciting comments. There was no documented opposition to the project contained within the summary materials presented in the PER. The recommendation was to bid the project based on a prioritization schedule as described within this report and award only as much of the work as the community would afford based on bids.

IX. AGENCY ACTION, APPLICABLE REGULATIONS AND PERMITTING AUTHORITIES

All proposed improvements will be designed to meet state standards in accordance with MDEQ Circular DEQ-8 as applicable and will be constructed using standard construction methods. Best management practices will be implemented to minimize or eliminate pollutants during construction. No additional permits will be required from the State Revolving Fund (SRF) section of DEQ for this project after the review and approval of the submitted plans and specifications. However, coverage under the storm water general discharge permit is required from DEQ's Water Protection Bureau prior to the beginning of construction. A 124 Permit from the Department of Fish, Wildlife and Parks, a 404 Permit from the U.S. Corps of Engineers, and a 318 Authorization from DEQ will be required for any work that occurs in a streambed or wetland, and will be obtained as necessary.

X. REFERENCE DOCUMENTS

The following documents have been utilized in the environmental review of this project and are considered to be part of the project file:

1. City of Shelby, Storm Water Facilities PER, prepared for the city, by KLJ, Inc., Kalispell, Montana, May 2012.
2. MT DEQ 8, Design Standards for Subdivision Storm Drainaige, 2002 Ed, MT DEQ.

XI. AGENCIES CONSULTED

The following agencies have been contacted in regard to the PER, which determined the basis for the proposed wastewater treatment and collection system project:

A. The Montana Department of Fish Wildlife and Parks (FWP) was consulted, and commented that "Fish, Wildlife and Parks (FWP) believes this project will have no adverse impacts related to fish and wildlife resources".

B. The U. S. Fish and Wildlife Service (FWS) was consulted and and provided the information

provided in item VII. 6 above. No impacts to any of the listed species are expected with respect to this project. Should species of concern be witnessed during planning or construction, the city, its engineer and its contractor would be obligated to report those observations and to suspend work until cleared to continue by the FWS.

C. The Montana State Historic Preservation Office (SHPO) considered the impacts of the proposed project on historical sites and cultural resources and indicated there appears to be no properties on or that are eligible for the National Register of Historic Places within the project area. The Montana State Historic Preservation Office asks to be contacted and the site investigated should cultural materials be inadvertently discovered during construction.

D. The U.S. Army Corps of Engineers (ACOE) reviewed the proposed project and determined that mitigation will be necessary to offset the impacts of this project and the combined impacts from the city's wastewater improvements project. The city is currently working to develop the permit application and determine the most feasible method of mitigating identified wetlands allowed under the permitting process. The city is currently proposing to develop an enhanced wetland within the area below the storm water outfall location in the coulee that eventually drains to the Marias River.

E. Montana Natural Heritage Program was contacted and concluded "we do not anticipate adverse effects to threatened, endangered, candidate species, or critical habitat to result from implementation of the proposed project".

F. Department of Natural Resources and Conservation (DNRC) reviewed the proposed project and determined that the project is located in a mapped 100-year floodplain and that a floodplain permit may need to be secured for work within the project area prior to construction.

Recommendation for Further Environmental Analysis:

[ ] EIS [ ] More Detailed EA [**X**] No Further Analysis

Rationale for Recommendation: Through the Preliminary Engineering Report, prepared by KLJ and the public process involved, the City of Shelby has determined the preferred storm water facilities improvements are needed to reduce flooding within many low lying areas of the community and to provide for improved public health protection. Through this EA, the MDEQ has verified none of the adverse impacts of the proposed storm water improvements are significant; therefore an environmental impact statement is not required. The environmental review was conducted in accordance with the Administrative Rules of Montana (ARM) 17.4.607, 17.4.608, 17.4.609 and 17.4.610. This EA is the appropriate level of analysis because none of the adverse effects of the impacts are significant.

EA Prepared By:

Terry Campbell, P.E. — 9/30/15 Date

Approved By:

Paul LaVigne, P.E. — 9/30/15 Date

FIGURE 1 – LOCATION MAP

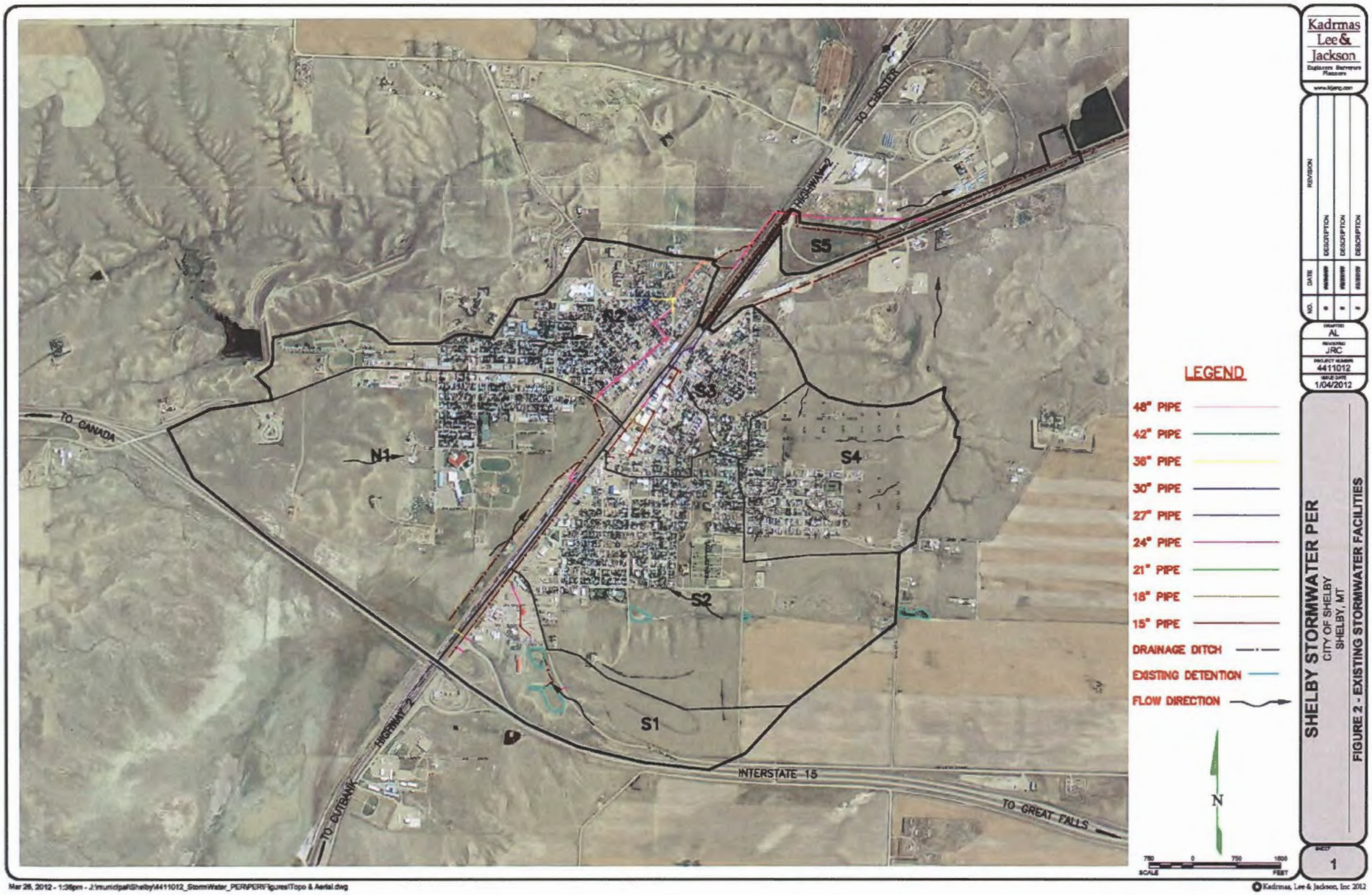


FIGURE 2 – STORM WATER IMPROVEMENTS FRONT STREET AREA

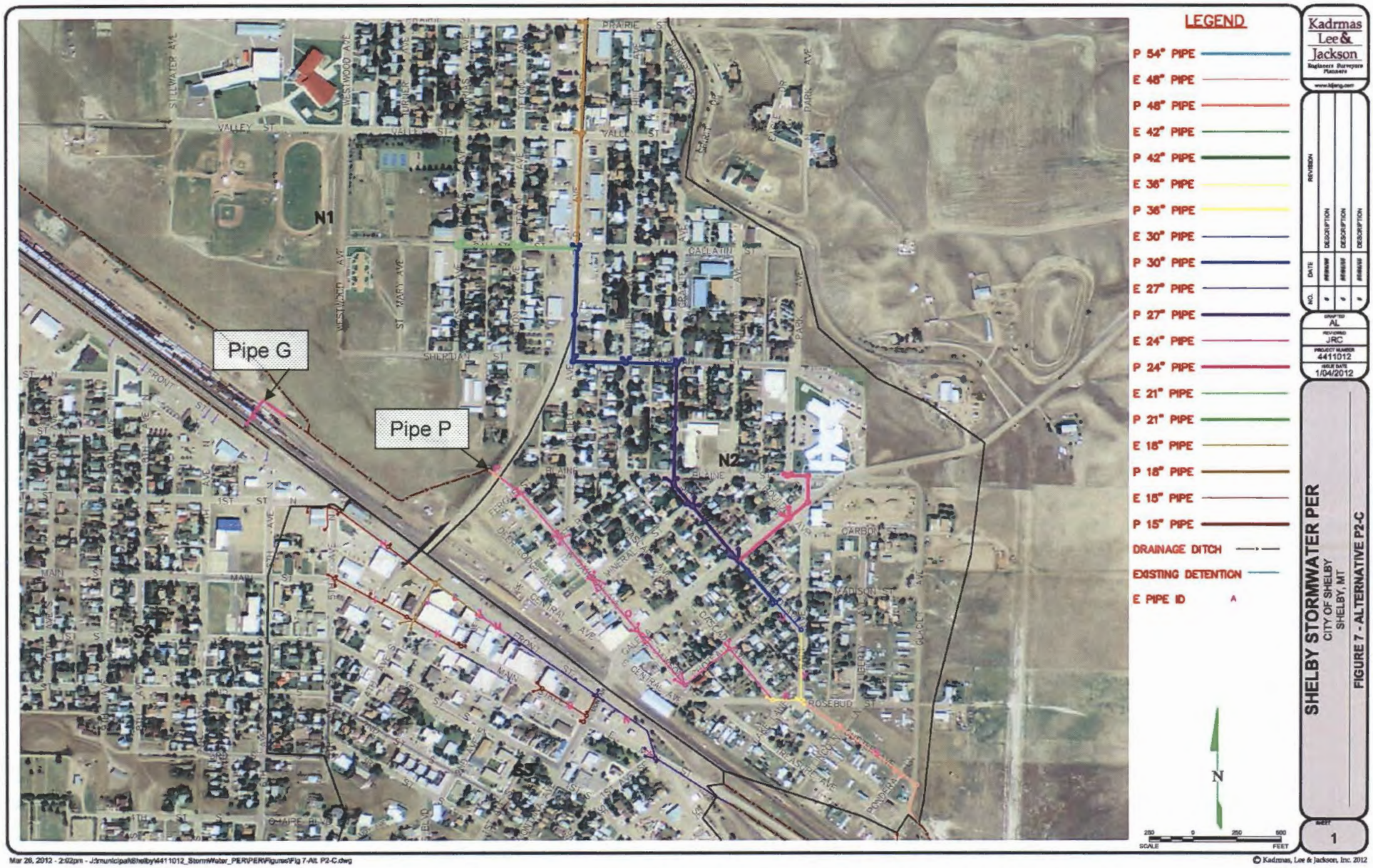


FIGURE 3 – STORM WATER IMPROVEMENTS N1 & N2 DRAINAGE AREAS

FIGURE 4 – STORM WATER IMPROVEMENTS S4 & S5 DRAINAGE AREAS

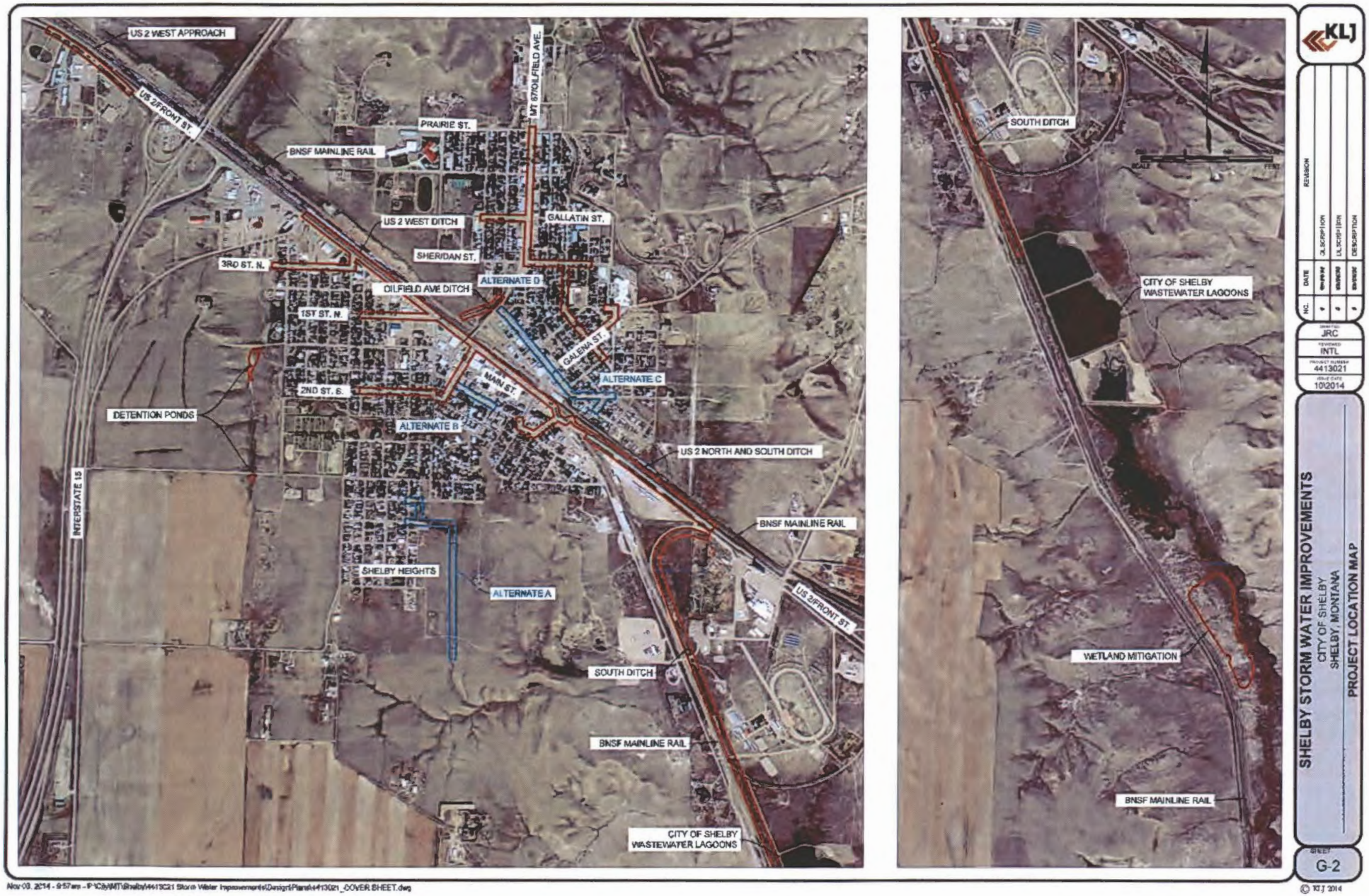


FIGURE 5 – STORM WATER IMPROVEMENTS – PROJECT LOCATION PLAN

DEQ
Montana Department
of Environmental Quality

Memorandum

To: Terry Campbell, CWSRF
From: Carolyn DeMartino, SWP Section CD
Date: September 23, 2015

Re: Potential Contaminant Source Review for the City of Shelby Storm Water Improvements

Based on a review by Source Water Protection Section staff and Hazardous Waste Cleanup Bureau staff; potential contaminant sources (PCSs) were identified within the100-foot buffer surrounding the proposed storm water improvement areas (Figure 1). PCSs identified include: State Superfund (CECRA) sites; underground fuel storage tanks (USTs), leaking USTs, and an inactive hazardous waste handler (Attachment A). Other PCSs include the Burlington Northern Santa Fe Railroad, drainage ditches, and municipal sewer lines.

The PCS review included the use of the following databases: Remediation Division databases (HWCS; State Superfund Section, Site Response Section, Federal Facilities and Brownfields Section, Petroleum Tank Cleanup Section); underground fuel storage tanks (USTs), active and abandoned mine sites, Montana Agricultural Chemical Groundwater Protection Act Sites, Water Quality Act Sites, landfills, transportation routes (roads/ railroads), petroleum pipelines, hazardous waste handlers, septic density, and wastewater discharge areas.

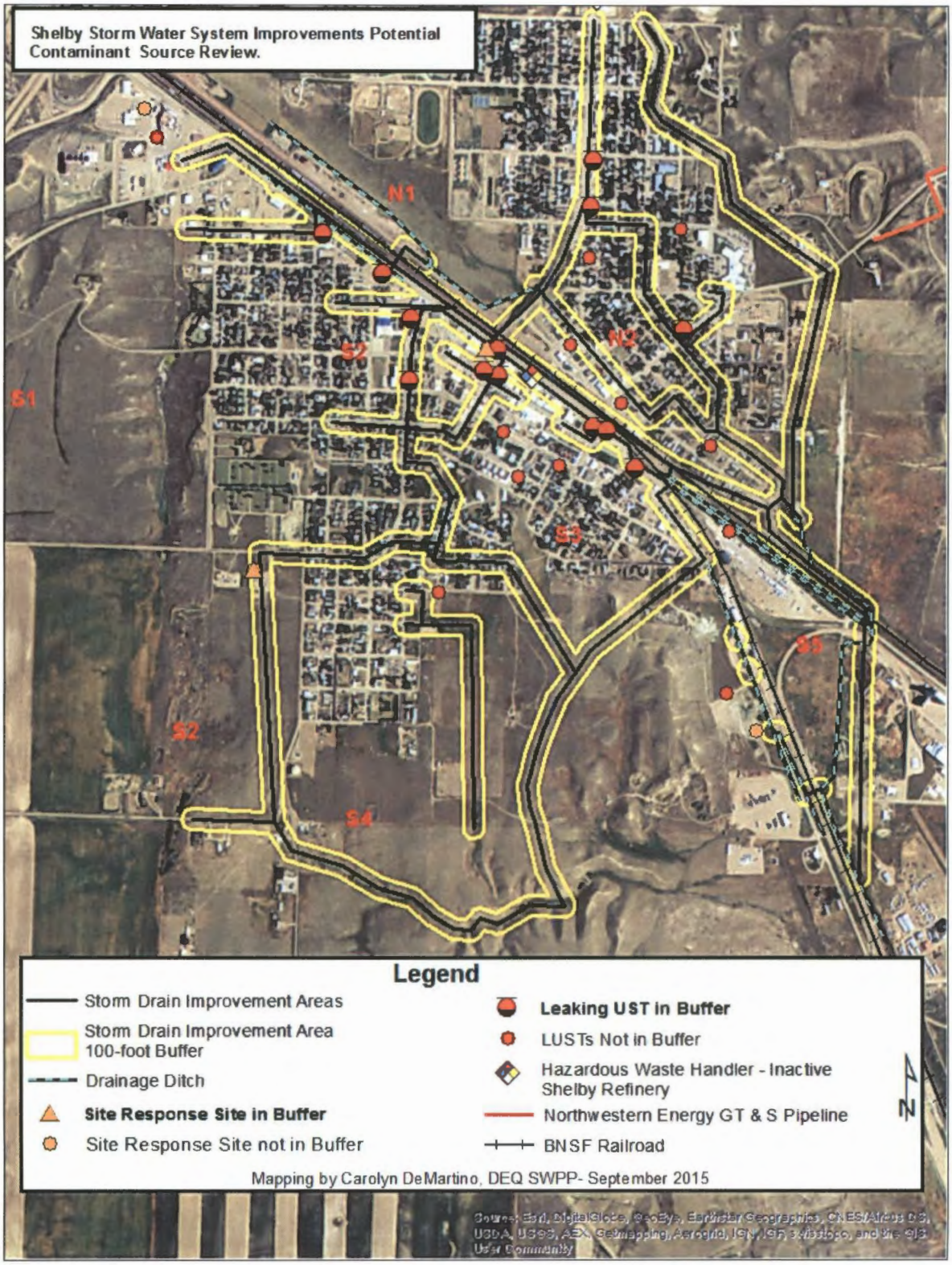
The PCSs described above are identified from readily available information. Consequently, unregulated activities or unreported contaminant releases may have been inadvertently overlooked. The geographic location accuracy (street address, latitude & longitude) of all identified tank (UST & Leaking UST) sites, should also be verified by the user. The use of multiple sources of information, however, should ensure that the majority of potential contaminant sources were addressed by this review.

It is possible that the contractor for this project could potentially encounter petroleum-impacted soils during this project. In the event contamination is encountered, the contractor should immediately report the event to an actual person using the Montana Department of Environmental Quality Hot Line at: 1-800-457-0568 or after hours and holidays 1-406-324-4777.

Thank you for giving me the opportunity to review this project. Please contact me at extension 0820, if you have any questions.

Steve Bullock, Governor I Tom Livers, Director I P.O. Box 200901 I Helena, MT 59620-0901 I (406) 444-2544 I www.deq.mt.gov

Figure 1


Shelby Storm Water System Improvements Potential Contaminant Source Review.
N1
N2
S1
S2
S3
S4
S5
Legend
Storm Drain Improvement Areas
Storm Drain Improvement Area 100-foot Buffer
Drainage Ditch
Site Response Site in Buffer
Site Response Site not in Buffer
Leaking UST in Buffer
LUSTs Not in Buffer
Hazardous Waste Handler - Inactive Shelby Refinery
Northwestern Energy GT & S Pipeline
BNSF Railroad
N
Mapping by Carolyn DeMartino, DEQ SWPP- September 2015

ATTACHMENT A

LUSTExport_Output selection

FID	Shape *	ReleaseID	FacilityID	SITENAME	ADDR_CITY	ADDR_STRT	CITY	Confirmed	Resolved	DLat	Dlong	LLMethod
0	Point	262	5101699	BUS BARN #262	SHELBY	133 6TH AVE S	SHELB	10/1/1989	9/26/1990	48.506272	-111.862579	Address Match, Exact Z4 USPS
3	Point	665	5103266	CITY SHOP #665	SHELBY		SHELB	3/25/1991	4/18/1991	48.505207	-111.855129	Address Matching, Near Match
4	Point	711	5110669	MOORES TRUCK STOP #711	SHELBY	950 W ROOSEVELT HWY	SHELB	4/22/1991	4/10/2013	48.51013	-111.86626	Address Matching, Near Match
6	Point	1025	5100513	FULTON PRODUCING CO #1025	SHELBY	127 MAIN ST	SHELB	11/27/1991	1/25/1993	48.504137	-111.853377	Address Match, Exact Z4 USPS
7	Point	1087	5106112	TAYLOR TRUE VALUE HARDWARE STORE #1087	SHELBY	614 W Roosevelt Hwy	SHELB	2/10/1992	10/6/1992	48.509118	-111.863804	Address Matching, Near Match
14	Point	2027	5113183	PETROLANE #2027	SHELBY	761 Oilfield Ave	SHELB	12/8/1993	2/22/2008	48.511108	-111.855487	Address Match, Exact Z4 USPS
15	Point	2220	5107718	C JS CHEVRON #2220	SHELBY	100 MAIN ST	SHELB	5/31/1994	9/13/1994	48.504137	-111.853377	Address Match, Exact Z4 USPS
18	Point	2570	5101487	SHELBY AUTOCRAFT SHOP #2570	SHELBY	824 OILFIELD AVE	SHELB	4/21/1995	7/12/1995	48.512315	-111.855411	Address Match, Exact Z4 USPS
22	Point	3085	5106111	BEN TAYLOR INC #3085	SHELBY	130 1/2 FRONT ST	SHELB	9/1/1993	<Null>	48.5072	-111.859034	Address Match, Exact ESRI ARC
23	Point	3149	5613784	CLAYTON CARTER #3149	SHELBY	131 N GRANITE AVE	SHELB	4/21/1997	1/16/1998	48.50788	-111.85155	Address Matching, Exact Match
27	Point	3333	5100104	NOONS 573 FORMER GASAMAT #3333	SHELBY	602 W Roosevelt Hwy	SHELB	1/14/1998	<Null>	48.507949	-111.862597	Address Match, Exact Z4 USPS
28	Point	3427	5104477	PETES NORTHSIDE GARAGE #3427	SHELBY	807 OILFIELD AVE	SHELB	5/20/1998	<Null>	48.512315	-111.855411	Address Match, Exact Z4 USPS
29	Point	3434	5109159	Q 18 #3434	SHELBY	US HIGHWAY 2	SHELB	5/19/1998	7/12/2010	48.505207	-111.855129	Address Matching, Near Match
34	Point	4095	5104030	SIMONS PETROLEUM BULK PLANT #4095	Shelby	530 W ROOSEVELT HWY	Shelby	4/25/2002	<Null>	48.5065	-111.859	Map Interpolation High Quality
38	Point	4605	5104291	ARTHUR ADAMSON #4605	SHELBY		SHELB	11/15/2007	11/16/2011	48.505207	-111.855129	Address Matching, Near Match
39	Point	4612	9995054	FORMER BEN TAYLOR OIL STORAGE WAREHOUSE #4612	Shelby	101 E Main St	Shelby	4/23/2007	4/3/2014	48.50513	-111.85454	Map Interpolation High Quality
43	Point	4904	5107144	FORMER BRYANS AUTO REPAIR #4904	SHELBY	400 MAIN ST	SHELB	5/7/2012	<Null>	48.50661	-111.859601	Navigation - Quality GPS

Site Response (CECRA) Sites

FID	Shape *	SITEID	SiteName	Program	SystemID	City	County	YLat	XLong	Miles
0	Point	30077	BURLINGTON NORTHERN FUELING FACILITY SHELBY	HWC	BNFS	SHELB	TOOLE	48.50722	-111.85944	0.072022
5	Point	30649	WESTERN AREA POWER ADMINISTRATION SUBSTATION	HWC	WAPA	SHELB	TOOLE	48.50111	-111.86861	0.666513

Hazardous Waste Handlers

OBJECTID	SITE_ID	EPA_ID	SITE_NAME	STAT_DESC	PERMITTED	GEN_STATUS	ADDR_ST_1	CNTY_NM	ADDR_CITY	LONGITUDE	LATITUDE
62376	172953	MTD986073336	SHELBY REFINERY	Inactive	NO	Conditionally Exempt	FRONT ST	TOOLE	SHELBY	-111.85763	48.50653
						Small Quantity Generator					