CAPITAL IMPROVEMENT PROGRAM
City of Missoula CIP Project Request Form FY 2014-2018

Program Category:	Project Title:		12 Project #	13 Project #	14 Project #
Community Service	Salt Brine Facility			CS-17	CS-17

Description and justification of project and funding sources:

Construction of a salt brine facility would allow City street personnel to produce salt brine for deicer use in the winter. Estimated annual savings for City is $ 41,094. Estimated pay back time is 6.6 years, see support page # 1 for cost/benefit analysis.

Is this equipment prioritized on an equipment replacement schedule?	Yes	No	NA
			X

Are there any site requirements:

REVENUE

How is this project going to be funded:

Funding Source	Accounting Code	FY14	FY15	FY16	FY17	FY18	Funded in Prior Years
Road District					270,000		
		-	-	-	270,000	-	-

EXPENSE

How is this project going to be spent:

Budgeted Funds	Accounting Code	FY14	FY15	FY16	FY17	FY18	Spent in Prior Years
A. Land Cost							
B. Construction Cost					270,000		
C. Contingencies (10% of B)							
D. Design & Engineering (15% of B)							
E. Percent for Art (1% of B)							
F. Equipment Costs							
G. Other							
		-	-	-	270,000	-	-

OPERATING BUDGET COSTS

Does this project have any additional impact on the operating budget:

Expense Object	Accounting Code	FY14	FY15	FY16	FY17	FY18	Spent in Prior Years
Personnel							
Supplies					(41,094)	(41,094)	
Purchased Services							
Fixed Charges							
Capital Outlay							
Debt Service							
		-	-	-	(41,094)	(41,094)	-

Description of additional operating budget impact: This project will result in an estimated annual savings of $41,094 per year.

Responsible Person:	Responsible Department:	Date Submitted to Finance	Today's Date and Time	Preparer's Initials	Total Score
Brian Hensel	Public Works	3/11/2013	4/10/2013 15:54	JSM	-

CAPITAL IMPROVEMENT PROGRAM

Project Rating

(See C.I.P. Instructions For Explanation of Criteria)

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Qualitative Analysis	Yes	No	Comments
1. Is the project necessary to meet federal, state, or local legal requirements? This criterion includes projects mandated by Court Order to meet requirements of law or other requirements. Of special concern is that the project be accessible to the handicapped.		X	
2. Is the project necessary to fulfill a contractual requirement? This criterion includes Federal or State grants which require local participation. Indicate the Grant name and number in the comment column.		X	
3. Is this project urgently required? Will delay result in curtailment of an essential service? This statement should be checked "Yes" only if an emergency is clearly indicated; otherwise, answer "No". If "Yes", be sure to give full justification.		X	
4. Does the project provide for and/or improve public health and/or public safety? This criterion should be answered "No" unless public health and/or safety can be shown to be an urgent or critical factor.		X	

Quantitative Analysis	Raw Score Range	Comments	Weight	Total Score
5. Does the project result in maximum benefit to the community from the investment dollar?	(0-3)	The program will result in an annual savings of approximately $41,094.	5	-
6. Does the project require speedy implementation in order to assure its maximum effectiveness?	(0-3)	Construction and permit costs are highly likely to increase in future years if the project is delayed.	4	-
7. Does the project conserve energy, cultural or natural resources, or reduce pollution?	(0-3)	By producing our own deicer Street Division will not have to rely on semi-tractor delivery of mag chloride from Butte, which will result in less fossil fuel being consumed for hauling.	3	-
8. Does the project improve or expand upon essential City services where such services are recognized and accepted as being necessary and effective?	(0-2)	This program will allow the City to maintain current levels of deicing services at a cost savings.	4	-
9. Does the project specifically relate to the City's strategic planning priorities or other plans?	(0-3)	Implementation of this project will allow Street Division and the City to maintain fiscal sustainability by producing our own deicer product cheaper than mag chloride can be purchased.	4	-
			Total Score	-

Salt Brine Facility Cost/Benefit Analysis

Mag chloride use by Street Division last 3 years (FY 09 - FY 11) average :	249,672 Gals.
Current Mag Chloride cost/gal (FY 12):	$0.84
Salt Brine application rate 1.67 times more than mag chloride, per MDT equivalent volume of salt brine to 3 year average mag chloride use:	416,952 Gals.
Current salt brine production cost/gal, including labor, equipment, and inhibitor, per MDT	$0.40
Total cost to buy average volume of mag chloride at $0.84/gal:	$209,724.20
Cost to produce equivalent average volume of salt brine at $0.40/gal:	$166,780.90
Incidental cost to City for water per year:	$1,849.00
Total Cost to City to produce salt brine:	$168,629.90
Total average annual savings to City:	**$41,094.30**
Estimated Cost to construct City owned salt brine facility, including building, salt storage, plumbing, electrical, water service install, brine machine, building plans, permits, and fees:	**$270,000**
Estimated pay off time for capital investment:	**6.6 Years**