

**CAPITAL IMPROVEMENT PROGRAM**  
**City of Missoula CIP Project Request Form FY 2013-2017**

Program Category:	Project Title:	11 Project #	12 Project #	13 Project #
Parks, Recreation and Open Space	Stump Cutter			PR-17

**Description and justification of project and funding sources:**

Purchase a new stump cutter to replace the stump grinder #69037 retired in early 2010.  
 Justification: A fully functional Urban Forestry Program needs to be able to work from the top of a tree to the roots. Over 60% of the City's Urban Forest is comprised of mature or overly-mature trees. 92% of these trees are in poor condition. As these mature and overly-mature trees continue to age a larger percentage will need to be removed. During the last two block pruning projects approximately 18% of the trees were rated as hazards and removed. The City's Arborists, without a stump cutter, cannot complete tree removal projects in a timely and efficient manner. Stumps are left in street boulevards and in parks from 6-8 months waiting for contract bids to be approved and contractors to grind them out. Each day a stump remains in the boulevard or park is a day someone may be injured by a tripping hazard. This presents an unnecessary liability to the City. Purchase now as costs continue to escalate on equipment. In FY2003 a CIP request asked for \$29,000 to replace the old stump grinder, In FY2006 the request was for \$33,000. The cost is now at \$45,000 plus a one time cost of \$7,000 for optional enhanced safety equipment. Total \$52,000

**Is this equipment prioritized on an equipment replacement schedule?**

Yes

No

NA

X

**Are there any site requirements:**

**How is this project going to be funded:**

Funding Source	Accounting Code	FY13	FY14	FY15	FY16	FY17	Funded in Prior Years
Park District 1		52,000					
		52,000	-	-	-	-	-

**How is this project going to be spent:**

Budgeted Funds	Accounting Code	FY13	FY14	FY15	FY16	FY17	Spent in Prior Years
A. Land Cost							
B. Construction Cost							
C. Contingencies (10% of B)							
D. Design & Engineering (15% of B)							
E. Percent for Art (1% of B)							
F. Equipment Costs		45,000					
G. Other		7,000					
		52,000	-	-	-	-	-

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

Expense Object	Accounting Code	FY13	FY14	FY15	FY16	FY17	Spent in Prior Years
Personnel							
Supplies		100	100	150	150	175	
Purchased Services							
Fixed Charges							
Capital Outlay							
Debt Service							
		100	100	150	150	175	-

Description of additional operating budget impact: Over the lifetime of the machine there will be additional costs related to normal wear and tear costs, grease and hydraulic fluids, replacement cutter teeth, and fuel.

Responsible Person:

Responsible Department:

Date Submitted to Finance

Today's Date and Time

Preparer's Initials

Total Score

Gregory B. Howe

Parks and Recreation

4/20/2012 14:14

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CAPITAL IMPROVEMENT PROGRAM					
Project Rating					
(See C.I.P. Instructions For Explanation of Criteria)					
Program Category:	Project Title:				10 Project #
Parks, Recreation and Open Space	Stump Cutter				PR-17
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	Stumps left in boulevards, parks or on other city properties are potential legal liabilities. The City must be able to prove a reasonable process for eliminating the hazard to avoid financial jeopardy. A stump cutter and its efficient use can provide that legal protection.	
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	One of the main goals of the Parks and Recreation Department is to provide for the health and safety of the citizens. Trees when healthy provide many social, economical and psychological benefits to the public. Being able to remove a stump in a timely fashion and plant a new tree provides an opportunity to increase the public's health. By removing stumps in a timely fashion with a stump cutter public safety is served.	
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) 3	Yes, This equipment will allow City Arborists to remove stumps in a timely fashion and will show a return on investment within 5 years well within the lifecycle of the equipment.		5	15
6. Does the project require speedy implementation in order to assure its maximum effectiveness?	(0-3) 2	This equipment should be funded at the beginning of the fiscal year to maximize the benefits of the equipment.		4	8
7. Does the project conserve energy, cultural or natural resources, or reduce pollution?	(0-3) 1	The new engine is more fuel efficient conserving natural resources such as oil reserves and releases less emissions which reduces pollution.		3	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) 2	Urban Forestry is an essential City service protecting the citizens from hazardous trees and providing for the care and maintenance in developing healthy trees which benefit all citizens. This equipment will reduce overall costs for stump grinding thereby saving money and removing tripping hazards.		4	8
9. Does the project specifically relate to the City's strategic planning priorities or other plans?	(0-3) 2	Currently Urban Forestry staff and the Friends of the Urban Forest are working a plan to develop an Urban Forest Management Plan. One of the strategic goals of that management plan will be to increase stump removal and provide for new tree planting locations. This will be best accomplished by a stump cutter.		4	8
Total Score					42

## **Cost/Benefit Analysis Stump Cutter FY 2012**

### **Costs:**

The FY2012 Urban Forestry budget dedicated to the Care and Maintenance of Trees generally is used to hire contractors to prune trees which will be completely absorbed by stump cutting. Even after the contract is complete there will be a surplus of stumps in parks as there are not enough contract dollars to do all of the stumps currently existing. Leaving stumps for prolonged periods of time can create a trip hazard, which is a liability for the city. While this risk cannot be totally averted, if the Urban Forestry Program has a stump cutter for timely removals this risk is greatly decreased. A new stump cutter unit will allow the City's Arborists to be more productive and able to complete a trees removal from the top branches down to the roots.

Over the last several years since the former stump grinder was retired stump grinding contracts have increase in number of stumps and cost per diameter inch which has resulted in increased costs. The average stump grinding contract over the last 3 years has been \$11,348. If this number doesn't increase over the next 5 years as it is expected to do the city will only spend \$56,742 in contracts. By purchasing this equipment the City will see a return on investment within 5 years of purchase.

Put another way the average stump costs \$230 to remove. After 225 stumps are removed the cutter will have paid for itself. This should take approximately 4.2 years at the current rate of tree removal.

### **Benefits:**

A new stump grinder will benefit the Urban Forestry Program and the City as a whole due to an increase in overall work productivity, work completed in a timely fashion and reduced liability exposure. The former stump grinder had been up for replacement for over a decade. The new unit will also grind to a depth of 25" allowing the Urban Forestry crew to use it to dig holes for planting trees reducing costs on other equipment and increasing time efficiencies in planting. The Tier 4 motor is more environmentally friendly regarding the release of emission and the engine is more fuel efficient over earlier models.