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## SUMMARY

*Snowmobile and off-highway vehicle (OHV) trails are funded primarily from vehicle registration fees and gasoline taxes. Funding for snowmobiles and OHVs has increased (after adjusting for inflation) since 1991, due largely to an increase in the number of registered vehicles. The Department of Natural Resources (DNR) has used the snowmobile account to (1) fund grants-in-aid to snowmobile clubs to develop, maintain, and groom snowmobile trails, (2) develop and maintain its own trails, and (3) administer the entire snowmobile program. The OHV accounts have not funded many grant-in-aid trails but have, in recent years, been used to develop an OHV riding park in northeast Minnesota. The fund balances of the snowmobile and OHV accounts have been increasing, making it possible for the Legislature to appropriate more money for programs, if needed. The current percentages of gasoline taxes allocated to the four recreational vehicle accounts probably do not reflect the actual percentage of gasoline taxes paid by users of these vehicles for off-road use. The Legislature should reexamine the studies used to determine gas tax allocations to the snowmobile and OHV accounts.*

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**F**our dedicated accounts in the Natural Resources Fund are used to finance expenditures on snowmobile and OHV trails. These accounts fund the planning, development, maintenance, administration, and enforcement of DNR-managed and grant-in-aid trails. In this chapter, we review the financing of snowmobile and OHV trails and address the following questions:

- **How does Minnesota finance the development, maintenance, and management of its motorized recreational vehicle trails, and how are the funds spent?**
- **Do the four dedicated accounts for motorized recreation have sufficient balances to finance additional spending?**
- **Has the percentage of gasoline tax revenues paid to the snowmobile and OHV dedicated accounts reflected the actual percentage of gas taxes paid by snowmobile and OHV riders?**

To answer these questions, we reviewed fund statements for the four dedicated accounts and other financial data, and we interviewed DNR officials in the Trails and Waterways Division and other divisions. We also reviewed the gasoline tax

studies that were used to determine the percentage of gas tax revenue allocated to the snowmobile and OHV accounts.

## BACKGROUND

Registration fees and gas taxes have been the main sources of snowmobile funding since the 1970s. The Legislature first regulated snowmobiles in 1967. It required registration of snowmobiles with a registration fee of \$8 for three years deposited in the General Fund to be used to fund the snowmobile program.<sup>1</sup> The registration fee has been raised several times over the years and is now \$45 every three years.<sup>2</sup> There is also a \$2 filing fee and a \$1.50 fee to cover costs associated with electronic licensing.<sup>3</sup>

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**Snowmobiles, ATVs, dirt bikes, and 4X4 trucks each have their own dedicated account.**

In 1973, the Legislature established 0.375 percent as the proportion of the gas tax generated by snowmobile use, and it authorized those taxes to be credited to the General Fund to be used for the snowmobile program.<sup>4</sup> It increased the percentage to 0.75 percent in 1976 and to 1 percent in 1997. (In 2001, the allocation briefly reverted back to 0.75 percent, but it has since returned to 1 percent.)<sup>5</sup>

The 1982 Legislature created the “snowmobile trails and enforcement account” in the Natural Resources Fund. The account is funded primarily with registration fees and gas tax collections and is used for (1) grants-in-aid to counties and municipalities for construction and maintenance of snowmobile trails, (2) acquisition, development, and maintenance of state snowmobile trails, (3) snowmobile safety programs, and (4) administration and enforcement of snowmobile laws.<sup>6</sup>

In 1984, the Legislature regulated all-terrain vehicles (ATVs) in a manner similar to snowmobile regulation, required ATVs to be registered, and set the fee at \$18 for three years where it has remained to this day.<sup>7</sup> The Legislature required registration proceeds to be deposited in the “all-terrain vehicle account” (originally called the “three-wheel off-road vehicles account”) in the Natural Resources Fund. It also provided that funds from the account could be used

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<sup>1</sup> *Laws of Minnesota* (1967), ch. 876, sec. 4.

<sup>2</sup> *Minn. Stat.* (2002), §84.82, subd. 3.

<sup>3</sup> *Minn. Stat.* (2002), §84.82, subd. 2 (d) and *Minn. Stat.* (2002), §84.027, subd. 15.

<sup>4</sup> *Laws of Minnesota* (1973), ch. 648, sec. 1.

<sup>5</sup> *Laws of Minnesota* (1976), ch. 319, sec. 1 and *Laws of Minnesota* (1997), ch. 159, art. 2, sec. 39. The 1997 law was effective only for fiscal years 1998 and 1999. The 1999 Legislature extended the 1 percent rate one more year. *Laws of Minnesota* (1999), ch. 238, art. 2, sec. 68. The percentage reverted back to 0.75 percent for fiscal year 2001. The 2001 Legislature restored the 1 percent rate for fiscal year 2002 and subsequent years. *Laws of Minnesota* (Sp 2001), ch. 8, art. 2, sec. 62.

<sup>6</sup> *Laws of Minnesota* (1982), ch. 580, sec. 1 and *Minn. Stat.* (2002), §84.83, subd. 3. The grant-in-aid program was actually first established by the 1971 Legislature with a \$100,000 appropriation from the General Fund. *Laws of Minnesota* (Sp 1971), ch. 3, sec. 36, subd. 1 (c).

<sup>7</sup> The 1989 Legislature established a lower \$6 three-year registration fee for ATVs used exclusively for private or agricultural use or exclusively on private property. There is also a \$2 filing fee and a \$1.50 fee for electronic licensing. *Laws of Minnesota* (1989), ch. 331, sec. 11 and *Minn. Stat.* (2002), §84.922.



Gasoline taxes attributed to snowmobiles and OHVs are allocated to dedicated accounts for these vehicles.

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**Registration fees and gas taxes are the main sources of funding for snowmobile and OHV trails.**

for (1) education and training, (2) administration of the ATV program, (3) acquisition, maintenance, and development of vehicle trails and use areas, and (4) grants-in-aid to counties and municipalities to construct and maintain ATV trails and use areas.<sup>8</sup> Finally, it authorized DNR, the Department of Transportation (MnDOT), and the Department of Revenue to jointly determine the appropriate percentage of gas tax revenue attributable to ATV use and authorized the transfer of those revenues to the ATV account. That percentage was subsequently set at 0.15 percent and has not changed.<sup>9</sup>

In 1993, the Legislature enacted similar statutes for dirt bikes and 4X4 trucks. It established dedicated accounts in the Natural Resources Fund and provided that the accounts should be used for (1) administration and enforcement, (2) acquisition, development, and maintenance of trails and use areas, (3) grants-in-aid to local government, and (4) safety programs. It set registration fees of \$30 for three years and required DNR, MnDOT, and the Department of Revenue to jointly determine the appropriate percentage of gas tax revenues attributable to dirt-bike and 4X4-truck use.<sup>10</sup> Those percentages were subsequently set at 0.046 percent for the dirt bikes and 0.164 percent for 4X4 trucks.<sup>11</sup>

In total, DNR encumbered about \$9 million on snowmobile trails and \$2.4 million on OHV trails and recreation areas in 2002. (An encumbrance is a commitment to

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<sup>8</sup> *Laws of Minnesota* (1984), ch. 647, sec. 6 and *Minn. Stat.* (2002), §84.927.

<sup>9</sup> *Laws of Minnesota* (1986), ch. 452, sec. 21.

<sup>10</sup> *Laws of Minnesota* (1993), ch. 311, art. 1, sec. 2 and 8 and art. 2, sec. 2 and 7. There is also a \$2 filing fee and a \$1.50 fee for electronic licensing.

<sup>11</sup> *Laws of Minnesota* (1994), ch. 587, art. 12, sec. 10.

spend funds for a specific activity. Some encumbrances will be spent in the year they are made, while others will be spent in later years as bills are paid.) The Trails and Waterways Division also develops and maintains non-motorized trails. Non-motorized trails receive the bulk of their funding from the General Fund, but also receive funds from lottery proceeds and the Legislative Commission on Minnesota Resources. Excluding bonding, the division encumbered about \$6.6 million on non-motorized trails in 2002, including about \$2.1 million for the Trails and Waterways Division, \$1.8 million for grants to local governments to develop and maintain trails, \$2.4 million for specific projects, and \$0.3 million for cross-country ski trails.

## RECEIPTS

We reviewed annual year-end fund statements for the four dedicated accounts to determine how they are funded and how their receipts have changed over the last decade.

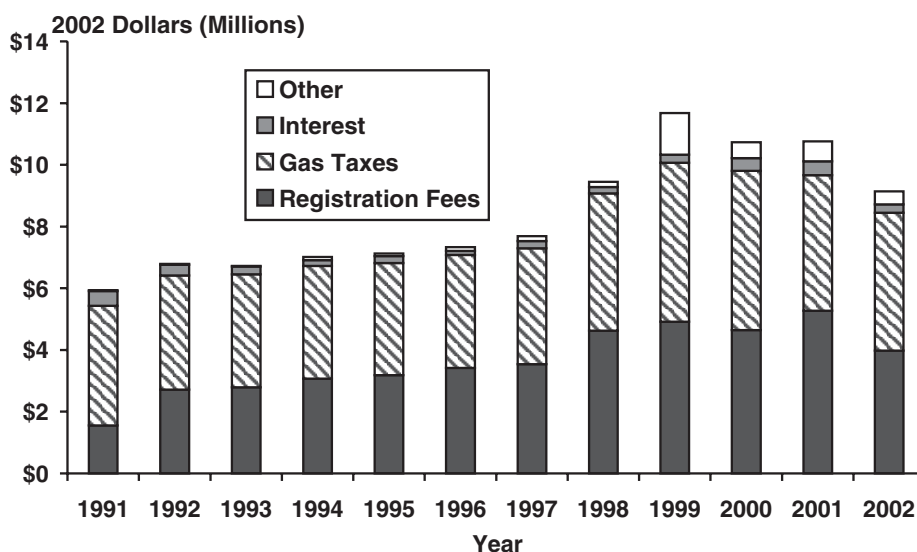
### Snowmobile Receipts

As shown in Figure 5.1:

- The snowmobile account receives most of its funding from vehicle registration fees and gasoline taxes.

While snowmobile account receipts increased from 1991 through 1999, they have started to decline.

**Figure 5.1: Snowmobile Account Receipts, FY 1991-2002**



SOURCE: Office of the Legislative Auditor analysis of Natural Resources Fund closing statements, fiscal years 1991-2002.

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**The snowmobile gas tax allocation has varied over the last several years.**

In 2002, gasoline taxes were the source of 49 percent of snowmobile account receipts, and registration fees provided 44 percent.<sup>12</sup> Metal track sticker fees and investment income each provided 3 percent, and 1 percent came from safety training fees. Total snowmobile account receipts were \$9.1 million. Figure 5.1 also shows that:

- **After adjusting for inflation, snowmobile account receipts have increased by 54 percent since 1991, due primarily to increased registration fees.**

Snowmobile registration receipts increased by 155 percent, from \$1.6 million in 1991 to almost \$4 million in 2002, due to increases in the number of registered snowmobiles plus a 1997 hike in the registration fee, from \$34 to \$45 for three years.<sup>13</sup> (Unless noted otherwise, all receipts, encumbrances, and account balances cited in this chapter were adjusted for inflation and are stated in 2002 dollars.)<sup>14</sup> Registration receipts in 2002 were down 25 percent from 2001, perhaps because 2002 had relatively little snow. Gasoline tax receipts were comparatively stable, increasing by 15 percent between 1991 and 2002. Gas tax receipts in 2001 and 2002 were about \$700,000 less than in 1999 and 2000. This was the result of a reduction for calendar year 2001 (half of fiscal year 2001 and half of fiscal year 2002) in the percentage of gas taxes attributable to snowmobiles from 1 percent to 0.75 percent. As noted earlier, the 1 percent rate has since been restored. Thus, beginning in 2003, gas tax receipts should revert to 2000 levels (about \$5.2 million per year). In addition, there have been several proposals to increase the gasoline tax rate by five or more cents per gallon. If a five-cent increase were enacted, the snowmobile account would receive approximately \$1.25 million more each year.<sup>15</sup>

## Off-Highway Vehicle Receipts

Figure 5.2 shows receipts for the ATV account. Like snowmobiles:

- **The ATV account has received nearly all of its funding from vehicle registration fees and gasoline taxes.**

In 2002, the ATV account received 63 percent of its funding from registration fees and 37 percent from gasoline taxes. Total 2002 receipts were \$2.1 million. After adjusting for inflation, this represents a 66 percent increase over 1991 receipts. The increase is entirely the result of increases in the number of ATV registrations, as both the registration fee and the percentage of gas tax going to the ATV account have not changed.<sup>16</sup>

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<sup>12</sup> Registration fees include filing fees and permit fees for out-of-state snowmobiles.

<sup>13</sup> *Laws of Minnesota* (1997), ch. 216, sec. 61.

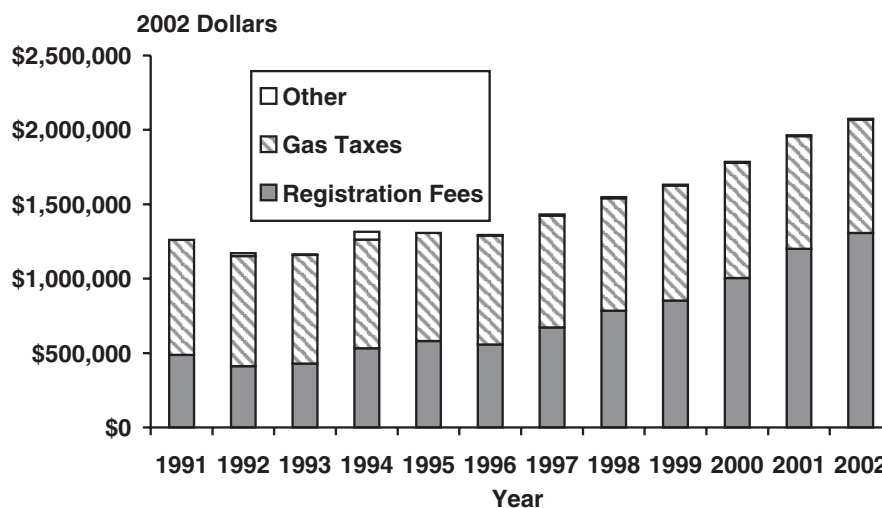
<sup>14</sup> Inflation adjustments are based on the Bureau of Economic Analysis, *Price Deflator for State and Local Government* (Washington, 2002); <http://www.besa.gov/bea/dn/nipaweb/TableViewFixed.asp?SelectedTable=144&FirstYear=2001&LastYear=2002&Freq=Qtr>; accessed June 3, 2002.

<sup>15</sup> Based on 2.5 billion gallons of taxable petroleum sold in 2001 times five cents per gallon (proposed increase) times 1 percent (snowmobile account's share).

<sup>16</sup> Actual gas tax revenues increased at about the same rate as inflation.

After adjusting for inflation, ATV account receipts increased by 66 percent between 1991 and 2002.

**Figure 5.2: ATV Account Receipts, FY 1991-2002**



NOTE: The figure excludes transfers in 1999 of \$737,843 from the 4X4 truck account and \$147,569 from the dirt bike account.

SOURCE: Office of the Legislative Auditor analysis of Natural Resources Fund closing statements, fiscal years 1991-2002.

The dedicated account for dirt bikes (the “off-highway motorcycle account”) received \$0.3 million in 2002. It received 74 percent of its 2002 receipts from gasoline taxes and 26 percent from vehicle registrations. After adjusting for inflation, receipts in 2002 were 32 percent more than in 1996, the first full year gas taxes were paid to the account. The increase is due entirely to an increase in the number of registered vehicles. The dedicated account for 4X4 trucks (the “off-road vehicle account”) had receipts of \$0.9 million in 2002. Because there are so few registered 4X4 trucks (1,416 as of 2001), 96 percent of the account’s receipts in 2002 were from gas taxes and only 4 percent from registration fees. Receipts for this account have been stable over the last five years.

## ENCUMBRANCES

We also examined encumbrances from each of the four dedicated accounts. (As mentioned earlier, an encumbrance is a commitment to spend funds for a specified purpose, either immediately or in the future.)

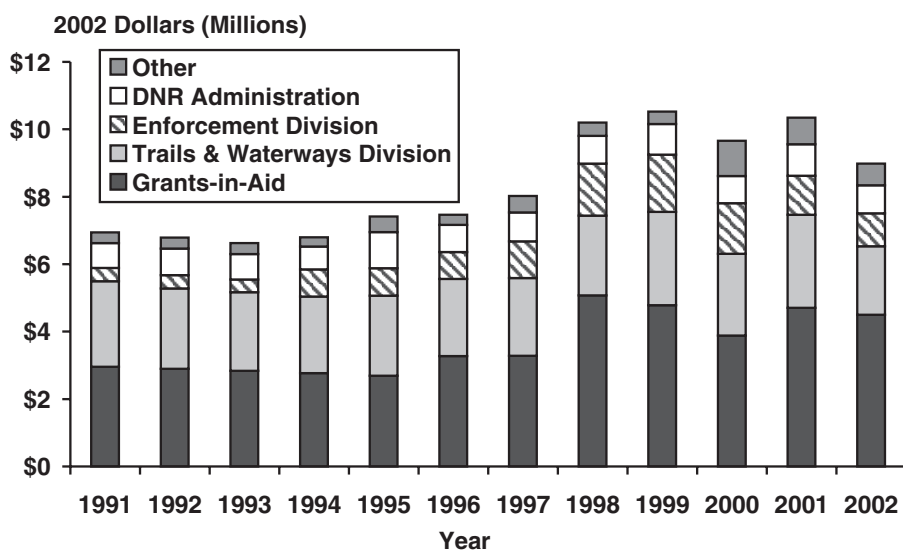
### Snowmobile Encumbrances

Figure 5.3 shows inflation-adjusted encumbrances from the snowmobile account from fiscal years 1991 to 2002. It indicates that:



- DNR has used the snowmobile account to develop, maintain, and groom snowmobile trails, to enforce snowmobile regulations, and to administer the snowmobile program.

**Figure 5.3: Snowmobile Account Encumbrances, FY 1991-2002**



SOURCE: Office of the Legislative Auditor analysis of Natural Resources Fund closing statements, fiscal years 1991-2002.

**The primary spending category in the snowmobile account is grants-in-aid.**

In 2002, for example, the state encumbered \$4.5 million (50 percent of the \$9 million total) on grants-in-aid to snowmobile clubs to develop, maintain, and groom snowmobile trails. An additional \$2 million (23 percent) went to the Trails and Waterways Division to oversee the overall snowmobile program and to develop and maintain its own trails.<sup>17</sup> Eleven percent of encumbrances were for enforcement and 9 percent went to DNR's central office for administrative expenses such as licensing, data systems, and personnel. Finally, 4 percent of encumbrances were for local enforcement grants, and 2 percent went to the Minnesota Conservation Corps for summer and after school work programs for youth to help maintain trails.

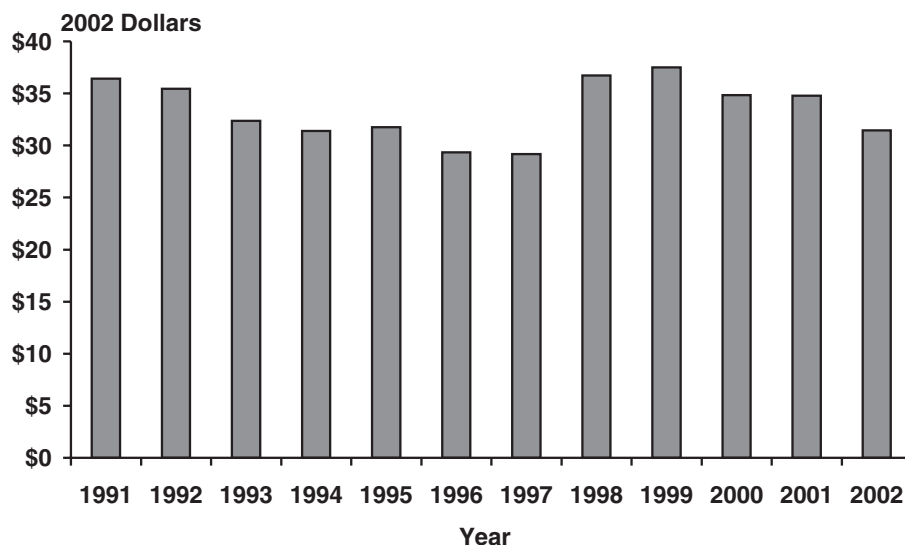
Figure 5.3 also shows that annual encumbrances have increased by 29 percent between 1991 and 2002. The largest increases were for enforcement (150 percent) and grants-in-aid (52 percent). However, as shown in Figure 5.4:

- **Overall snowmobile encumbrances per vehicle have remained fairly constant since 1991.**

Between 1991 and 2002, encumbrances per registered snowmobile have ranged from a low of \$29.19 in 1997 to a high of \$37.50 in 1999 as the result of

<sup>17</sup> See Chapter 1 for a description of the state's trail system.

**Figure 5.4: Snowmobile Account Encumbrances per Vehicle, FY 1991-2002**



SOURCE: Office of the Legislative Auditor analysis of Natural Resources Fund closing statements, fiscal years 1991-2002.

**The amount of grooming and maintenance that snowmobile trails receive is highly dependent on snow conditions.**

supplemental appropriations for grant-in-aid trails and enforcement. Encumbrances per vehicle have since declined to \$31.45 in 2002.

The amount of grooming and maintenance that snowmobile trails receive is highly dependent on snow conditions. Abundant snow means the trails will have to be groomed more frequently and for a longer season. Accordingly, we examined how grant-in-aid expenditures varied in high- and low-snow years. Under the grant-in-aid program, DNR and the trail sponsors enter into a two-year grant agreement, and clubs have two years to spend their funds. Table 5.1 shows that:

- **In high-snow years, clubs spent a higher percentage of their grant-in-aid allotment during the first year of a two-year agreement than low-snow years.**

The years with the most days with 12 or more inches of snow on the ground, 1996 and 1997, were also the years where the highest percentage of grant-in-aid allotments was spent during the first year of the grant agreement.<sup>18</sup> In the years with less snow, clubs spent a smaller portion of their grant-in-aid allotments during the first year of the agreement.

We also looked at how DNR allocates grants-in-aid to regions. According to DNR officials, the agency does not have a formula to determine how much to allocate to each region. Rather, DNR allots funds based on historical allotments

<sup>18</sup> Allotments are funds budgeted, usually on an annual basis, for a specific activity.



**Table 5.1: Snowmobile Grant-in-Aid Expenditure Patterns and Snow Conditions, FY 1996-2002**

<u>Budget Year</u>	<u>Amount Allotted</u>	<u>Amount Spent During First Year of Two-Year Grant</u>	<u>Percentage Spent</u>	<u>Days With 12+ Inches of Snow</u>
1996	\$2,820,296	\$2,087,085	74%	59
1997	2,298,925	2,116,043	92	83
1998	4,649,000	2,040,023	44	7
1999	4,378,392	1,480,199	34	14
2000	3,688,953	1,207,646	33	3
2001	4,649,000	3,055,544	66	55
2002	4,497,000	2,652,296	59	2

NOTE: Snow depth is based on an average of 30 reporting stations located in all regions of the state. Dollar figures are not adjusted for inflation.

SOURCE: Office of the Legislative Auditor analysis of MAPS data and data provided by the State Climatologist.

with adjustments made for known changes, such as the addition of new trails. Figure 5.5 shows that:

- **DNR has appropriately allotted more grant-in-aid funds to the northern regions than the southern regions.**

For both 2001 and 2002, snowmobile clubs in the northern regions received more funding than southern region clubs. In our view, this is reasonable because the northern regions have more miles of snowmobile trails and normally receive more snow than the southern regions.<sup>19</sup> Combining 2001 (a high snow year) and 2002 (a low snow year), we found that DNR annually allotted \$307 per mile of grant-in-aid trail to snowmobile clubs in the northern three regions and only \$260 per mile of trail in the three southern regions.<sup>20</sup>

## Off-Highway Vehicle Encumbrances

As noted above, three accounts fund OHV trails. Figure 5.6 shows inflation-adjusted encumbrances from one of those accounts, the ATV account, for fiscal years 1991 through 2002. It shows that:

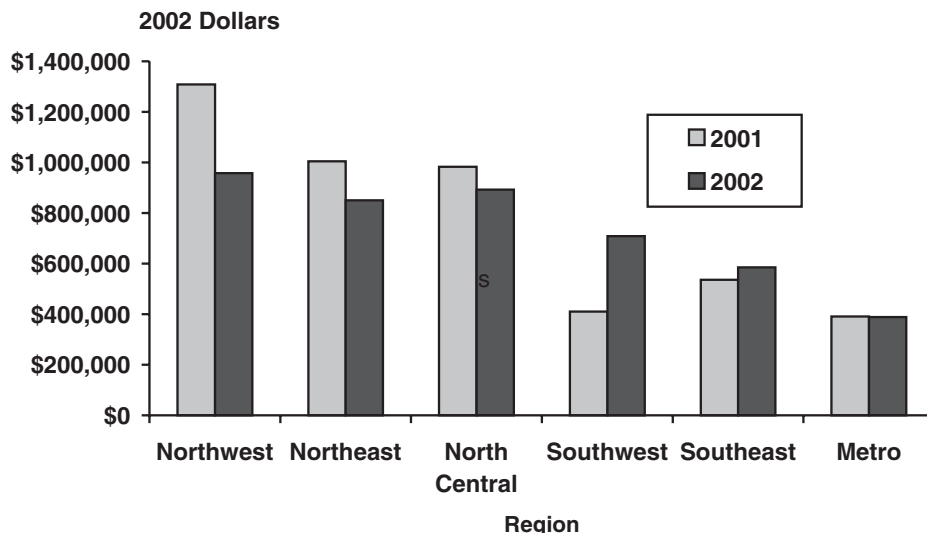
- **The ATV account has not funded many grant-in-aid trails but, in recent years, has been used to develop the Iron Range OHV Park in northeast Minnesota.**

**Minnesota's northern regions have more trails and snow, and they receive more snowmobile grant-in-aid money than the southern regions.**

<sup>19</sup> Excluding the 2,900 miles of trails added to the grant-in-aid program during calendar year 2002, 64 percent of the snowmobile grant-in-aid trails were in the three northern regions. Between 1991 and 2002, the northern regions averaged 40 days with 12 or more inches of snow on the ground, while the southern regions averaged 15 such days.

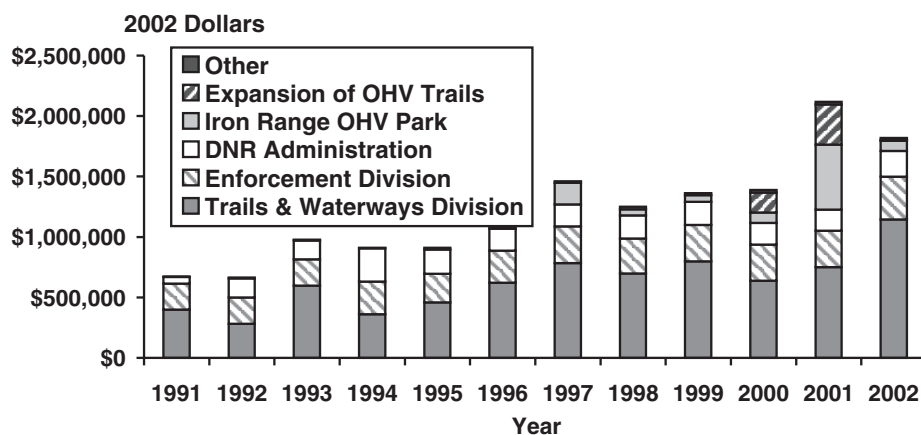
<sup>20</sup> Our calculation excluded the additional miles and allotments added to the grant-in-aid system in calendar year 2002.

**Figure 5.5: Snowmobile Grant-in-Aid Allotments by Region, FY 2001-2002**



SOURCE: Office of the Legislative Auditor analysis of DNR Appropriation-Allotment Summary Balance Reports, fiscal years 2001-2002.

**Figure 5.6: ATV Account Encumbrances, FY 1991-2002**



NOTE: Encumbrances for the Iron Range Off-Highway Vehicle Park exclude \$737,843 transferred from the off-road vehicle account (4X4 trucks) and \$147,569 transferred from the off-highway motorcycle account (dirt bikes). See *Laws of Minnesota* (1996), ch. 407, sec. 3. Trails & Waterways Division expenditures include grants-in-aid to local clubs to maintain trails.

SOURCE: Office of the Legislative Auditor analysis of Natural Resources Fund closing statements, fiscal years 1991-2002.

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**In 2002,  
grants-in-aid  
accounted for a  
smaller portion  
of funding for  
OHVs than for  
snowmobiles.**

As we discussed in Chapter 1, DNR funds far fewer grant-in-aid trails for ATVs than snowmobiles. In fact, we estimate that in 2002 roughly 18 percent of the ATV funds were encumbered for grant-in-aid trails, while for snowmobiles, grant-in-aid accounted for 50 percent of encumbrances. Although the ATV fund statements do not separate encumbrances for grant-in-aid trails from other Trails and Waterways Division encumbrances, we did examine the division's ATV funding allotment for 2002. (This is the ATV funding budgeted for various ATV activities, rather than the amount encumbered or spent.) In 2002, the state allotted 30 percent of the ATV funding for the Trails and Waterways Division to grant-in-aid trails. Therefore, we assumed that 30 percent of the encumbrances for the Trails and Waterways Division were for grant-in-aid trails. Figure 5.6 shows the breakdown of encumbrances from the ATV account by program activity. In 2002, grant-in-aid trails accounted for about 30 percent of the bottom "Trails and Waterways Division" segment of the bar. Figure 5.6 also shows that the Iron Range OHV Park, particularly in 2001, accounted for a significant portion of the encumbrances (25 percent in 2001 but only 5 percent in 2002).<sup>21</sup> Enforcement and DNR administration were the other significant encumbrance categories, accounting for 20 percent and 12 percent of ATV account encumbrances in 2002.

Encumbrances from the account for 4X4 trucks totaled \$1.1 million in 2002. Most of the money (85 percent) went to the Trails and Waterways Division. Five percent was encumbered for enforcement and 2 percent for administration. The state encumbered about \$0.4 million from the account for dirt bikes in 2002. The majority (65 percent) went to the Trails and Waterways Division, 18 percent was encumbered for enforcement, and 11 percent was encumbered for administration.<sup>22</sup>

As indicated by Figure 5.6, ATV encumbrances increased by 170 percent between 1991 and 2002 after adjusting for inflation. However, we found that:

- **Spending on ATV trails and use areas has not kept pace with the increase in ATV registrations.**

As shown by Figure 5.7, after adjusting for inflation, ATV account encumbrances per vehicle declined by 37 percent, from \$18 in 1991 to \$11 in 2002.<sup>23</sup> With the exception of 2001, when the ATV account helped fund the construction of the Iron Range OHV Park, encumbrances per registered ATV since 1998 have been lower than they were in the early 1990s. This differs from snowmobile encumbrances per vehicle which, as we noted earlier, have remained mostly stable since 1991.

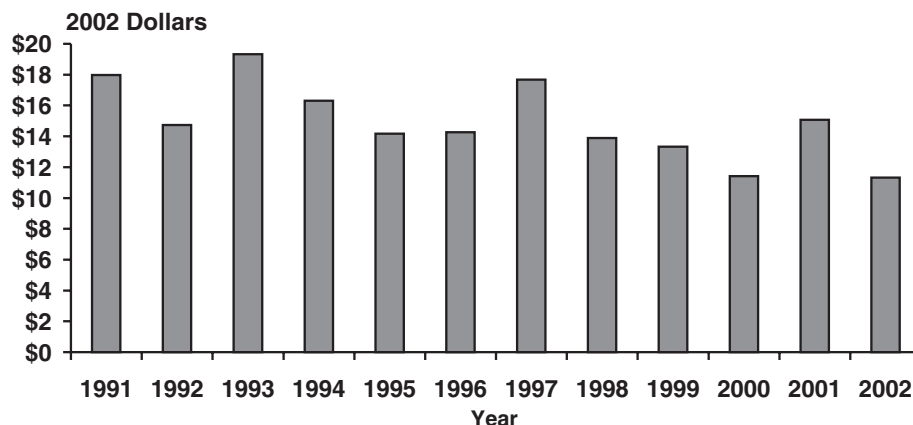
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<sup>21</sup> Encumbrances for the Iron Range OHV Park exclude \$737,843 (in 2002 dollars) transferred from the off-road vehicle account (4X4 trucks) and \$147,569 from the off-highway motorcycle account (dirt bikes). See *Laws of Minnesota* (1996), ch. 407, sec. 3.

<sup>22</sup> The remaining 5 percent of encumbrances from the dirt-bike account and 7 percent from the 4X4 truck account represent the funds used to build the Iron Range OHV Park.

<sup>23</sup> ATV registrations for 2002 were not available at the time we did our analysis. We estimated the number of registered ATVs to be 160,578, based on the average rate of increase in the number of registered ATVs since 1997. We did not calculate encumbrances per vehicle for the dirt bikes and 4X4 trucks because of the low number of registered vehicles in those categories.

**Figure 5.7: ATV Account Encumbrances per Vehicle, FY 1991-2002**



NOTE: The 2002 figure is based on an estimate of 160,578 registered vehicles. Amounts exclude \$737,843 transferred from the off-road vehicle account (4X4 trucks) and \$147,569 transferred from the off-highway motorcycle account (dirt bikes) to fund the Iron Range Off-Highway Vehicle Park.

SOURCE: Office of the Legislative Auditor analysis of Natural Resources Fund closing statements and DNR vehicle registration data, 1991-2002.

## FUND BALANCES

We reviewed the fund balances in the four recreational vehicle accounts to see if the accounts have sufficient funds to meet current and projected needs for snowmobile and OHV spending. While there is no precise definition of what constitutes an appropriate fund balance, we found that:

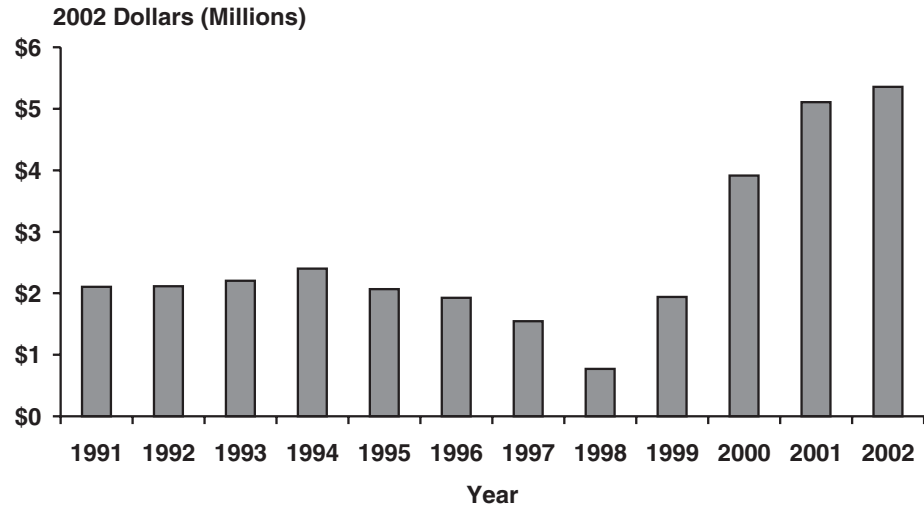
- **The fund balances in the four recreational vehicle accounts are adequate to meet current spending levels and could be drawn down to support funding for additional needs.**

**The fund balance in the snowmobile account has grown substantially since 1998.**

In recent years, the snowmobile account has received more money than it has spent, resulting in increases in the fund balance. As shown in Figure 5.8, after hovering at around \$2 million in the early 1990s, the fund balance fell to a low of \$773,000 in 1998. Since then, the fund balance has risen dramatically to \$5.4 million at the end of fiscal year 2002. Even after incorporating additional trails into its grant-in-aid system in 2002 and encumbering funds to maintain the added trails, the fund balance increased in 2002. At the end of 2002, the fund balance represented 60 percent of encumbrances from the snowmobile account that year.

Figure 5.9 shows fund balances for the ATV account. ATV fund balances have consistently been above \$4 million in the 1990s and, after rising steadily, have leveled off at around \$6 million. At the end of 2002, the fund balance represented three times what it needed to meet its financial commitments that year.

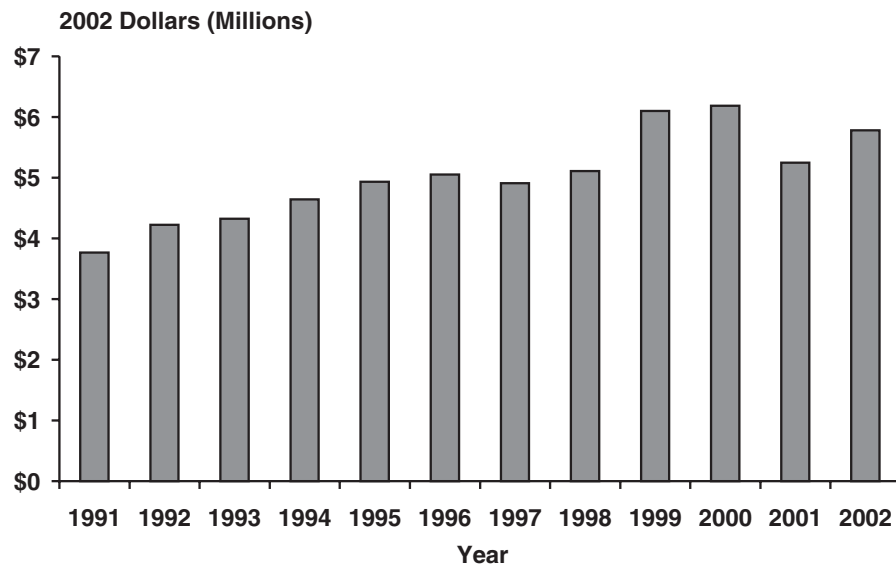
**Figure 5.8: Snowmobile Account Fund Balance, FY 1991-2002**



SOURCE: Office of the Legislative Auditor analysis of Natural Resources Fund closing statements, fiscal years 1991-2002.

**Figure 5.9: ATV Account Fund Balance, FY 1991-2002**

After rising during the 1990s, the fund balance in the ATV account has leveled off at about \$6 million.



SOURCE: Office of the Legislative Auditor analysis of Natural Resources Fund closing statements, fiscal years 1991-2002.

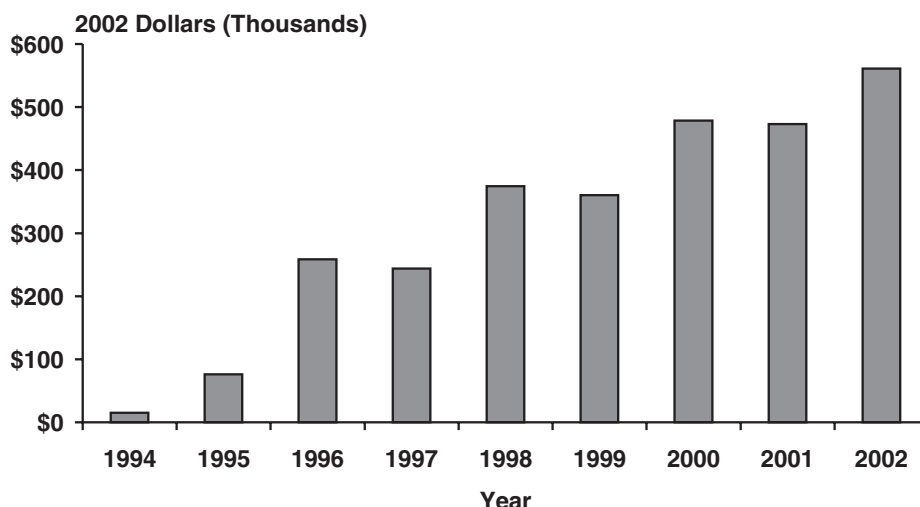
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**The fund balances in the dirt-bike and 4X4 truck accounts have grown since their inception.**

The fund balances of the accounts for dirt bikes and 4X4 trucks have also increased since the creation of those accounts in 1994, as shown in Figures 5.10 (dirt bikes) and 5.11 (4X4 trucks). The fund balance of the account for dirt bikes rose from \$258,000 in 1996, the first year that the account received a full year of gas tax receipts, to \$561,000 at the end of fiscal year 2002. The fund balance of the account for 4X4 trucks has risen from \$407,000 in 1996 to \$2.2 million at the end of 2002, despite the fact that it gets very little money from vehicle registrations. With relatively few miles of developed trails, the three OHV accounts have accumulated more money than they can spend.

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**Figure 5.10: Fund Balance of Account for Dirt Bikes, FY 1994-2002**



SOURCE: Office of the Legislative Auditor analysis of Natural Resources Fund closing statements, fiscal years 1994-2002.

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The four motorized recreational vehicle accounts together ended fiscal year 2002 with fund balances totaling \$13.9 million. In our view, some of this money could be used to meet some of the needs identified in this report. These include, for example, the planning and environmental review improvements discussed in Chapter 2, the increase in oversight discussed in Chapter 3, and increased enforcement and mandatory safety classes for OHVs discussed in Chapter 4.

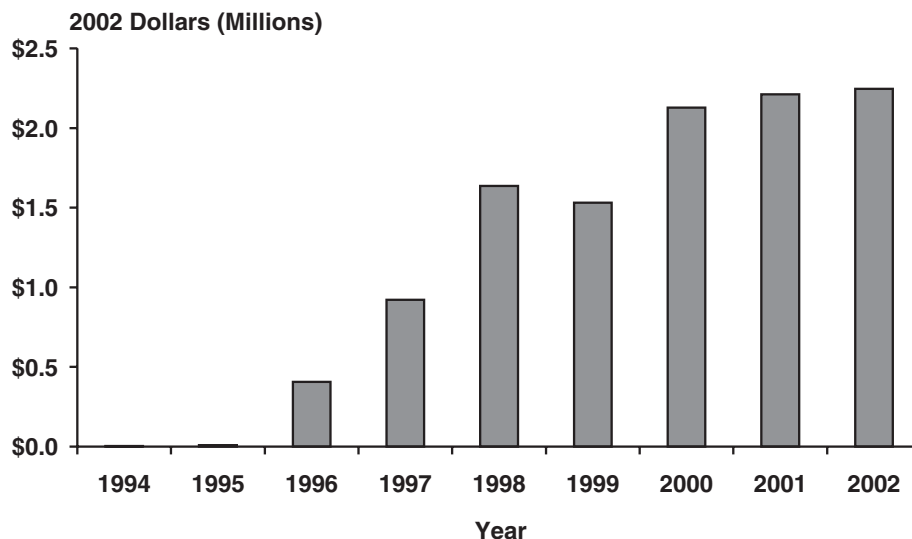
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### RECOMMENDATION

*If the Legislature identifies the need to spend more money on planning, environmental review, trail development and maintenance, grant oversight, and enforcement for motorized recreation, the Legislature should appropriate additional funds from the dedicated recreational vehicle accounts to meet these needs.*

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**Figure 5.11: Fund Balance of Account for 4X4 Trucks, FY 1994-2002**



SOURCE: Office of the Legislative Auditor analysis of Natural Resources Fund closing statements, fiscal years 1994-2002.

**Unlike snowmobile fees, registration fees for OHVs have not increased since they were first set.**

The rate of growth in the number of registered snowmobiles has leveled off in recent years and some DNR officials believe that snowmobile registrations may decline. In addition, DNR projects that fund balances for the four accounts will collectively decline by \$4.6 million in 2003.<sup>24</sup> While this is possible, we note that DNR's 2001 Closing Fund Statement projected a \$439,000 decline in the combined fund balances for the four accounts by the end of 2002. Instead, the fund balances increased by a combined \$906,000.

Finally, if fund balances do decline, the Legislature has the option to raise revenue by increasing OHV registration fees. While the snowmobile registration fee has increased several times over the last 30 years, as shown in Table 5.2, the ATV registration fees have not increased since ATV registration began in 1984, and the dirt bike and 4X4 trucks have not had an increase in registration fees since they were first regulated in 1993. As a result, OHV registration fees are much lower than snowmobile fees. Registration fees are \$45 every three years for snowmobiles, \$30 (two-thirds of the snowmobile fee) for dirt bikes and 4X4 trucks, and \$18 (40 percent of what snowmobiles pay) for ATVs.<sup>25</sup> Thus, there is an argument for raising registration fees for OHVs. Furthermore, as we discussed in Chapter 2, OHVs can be used much of the year and require a greater level of management than snowmobiles.

<sup>24</sup> The projected end-of-year fund balances for 2003 are \$3.3 million (snowmobile account), \$4.2 million (ATV account), \$1.5 million (4X4 trucks), and \$0.3 million (dirt bikes), for a total of \$9.4 million, or \$4.6 million less than 2002. DNR, *Natural Resources Fund FY 2002 Closing Fund Statement* (St. Paul, October 2002).

<sup>25</sup> As noted earlier, all vehicles are also charged a \$2 filing fee and \$1.50 fee to cover costs associated with electronic licensing.



**Table 5.2: Motorized Vehicle Registration Fees**

<u>Type of Vehicle</u>	<u>Current Three-Year Registration Fee</u>	<u>Last Time Fee Was Increased</u>
Snowmobile	\$45	1997
ATV	18	1984
Dirt Bike	30	1993
4X4 Truck	30	1993

NOTE: For all vehicles, there is also a \$2 filing fee and a \$1.50 fee to cover costs associated with electronic licensing. The fee for ATVs used exclusively for private or agricultural use or exclusively on private property is \$6 and is valid until ownership of the vehicle is transferred.

SOURCE: *Minn. Stat.* (2002), §§84.788, 84.798, 84.82, and 84.922.

**Researchers  
have surveyed  
recreational  
vehicle users to  
estimate the  
amount of gas  
they use.**

## GASOLINE TAX STUDIES

As noted earlier in this chapter, the dedicated snowmobile and OHV accounts receive a significant portion of their funds from gasoline taxes. The Legislature has determined that since recreational vehicle users pay some of these taxes, the taxes attributable to snowmobile and OHV use should go to support snowmobile and OHV trails. Unfortunately, nobody keeps records on how many gallons of gas are purchased by snowmobile and OHV users. As a result, the Legislature has relied on studies that have estimated the percentage of gas tax attributable to each of the four types of motorized recreational vehicles.

We reviewed these studies and found that:

- **The current percentages of gasoline taxes allocated to the four recreational vehicle accounts probably do not reflect the actual percentage of gasoline taxes paid by users of these vehicles for off-road use.**

All of the studies used to estimate the percentage of gasoline used by snowmobiles or OHVs have relied on surveys of vehicle owners. In our view, these studies are either outdated, have methodological flaws, or simply do not support the percentage adopted by the Legislature.

## Snowmobile Gas Tax Studies

The first estimate of snowmobile gas use was conducted in 1983 but was based largely on a telephone survey of snowmobile owners conducted in the winter of 1977-78, a year with average snowfall.<sup>26</sup> The study used (1) survey data on the average distance a snowmobile annually travels, (2) estimates of the number of snowmobiles in Minnesota, and (3) gas mileage data from manufacturers to estimate total annual gas consumption by snowmobiles. The authors then divided the gallons of gasoline attributable to snowmobiles by the total gallons purchased

<sup>26</sup> DNR Trails and Waterways Division, *Gasoline Use in Motorboats and Snowmobiles in the State of Minnesota* (St. Paul, January 1983).

in the state to determine the percentage of gasoline consumption (and, therefore, gasoline taxes) attributable to snowmobiles.

Surveys of this type were used in all subsequent studies of gas consumption by snowmobiles and OHVs. The methodology is not perfect because it relies on people's memories of how many times they ride, how far they go, and in some studies, how much gas they use. Subsequent snowmobile gas consumption studies were conducted in 1992 and 1998, both employing the same basic methodology.<sup>27</sup> None of the studies asked snowmobile or OHV owners to keep a log of their travels.

The snowmobile account's current gas tax allocation is based on the 1998 study. After evaluating the information in this study, we believe that:

- **The 1 percent gas tax allocation for snowmobiles is too high because it is based on gas consumption in a winter with an unusually long snowmobile season.**

Taking into account the caveats discussed above, the 1998 study seems methodologically sound for the most part. In fact, the authors used two methods to estimate gasoline consumption by snowmobiles in fiscal year 1997. The first method was the standard one discussed above. Using this method, snowmobiles consumed between 0.81 and 1.05 percent of taxable gas sales.<sup>28</sup> The second method was a statistical model that estimated annual gas consumption based on the snow depth in Grand Marais, Minnesota on January 25, 1997. This method produced an estimate of 0.76 to 0.99 percent of taxable gasoline sales attributable to snowmobiles. Based on the high-end estimate for both methods, a 1 percent allocation seems appropriate.

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**In an average snow year, snowmobiles probably account for less than 1 percent of total gasoline consumption.**

However, these estimates were based on the winter of fiscal year 1997 that, as shown in Figure 4.3 in Chapter 4, had the most days with 12 or more inches of snow depth of any winter in the last decade. To get a more reasonable estimate, we used 2002 snowmobile registration data and the 30-year average snow depth on January 25 in the "Grand Marais" model and estimated that snowmobiles account for 0.59 to 0.76 percent of total taxable gas consumption in 2002.<sup>29</sup> This analysis suggests that, for an average winter, the 1 percent allocation of gas taxes to the snowmobile account is probably too high. In its transmittal letter accompanying the gas tax study, DNR reached the same conclusion. It stated that,

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27 Jonathan C. Vlaming, Dorothy H. Anderson, and Gregg Flekke, *Gasoline Consumption by Snowmobiles Within Minnesota* (St. Paul: University of Minnesota Department of Forest Resources, February 1992), and Michael S. Lewis and Dorothy H. Anderson, *Gasoline Consumption by Snowmobiles Within Minnesota: Updating the 1992 Gasoline Consumption Model*, (St. Paul: University of Minnesota Department of Forest Resources, February 1998).

28 The authors concluded that, depending on the estimate of the number of unregistered vehicles, snowmobiles consumed from 18.7 to 24.1 million gallons of gasoline in 1997. Dividing those numbers by total gas sales of 2.3 billion gallons results in an estimate of the percentage of gas taxes attributable to snowmobiles in the range of 0.81 to 1.05 percent.

29 The high end of the estimate is based on an estimate of unregistered snowmobiles equal to 35 percent of registered snowmobiles. This would mean there were almost 100,000 unregistered snowmobiles in 2002 (35 percent of 285,675). Our analysis of citations and warnings, however, found that an average of 287 snowmobile riders received a citation or warning for not registering their vehicle in 2001 and 2002. This would mean that over 99.7 percent of the non-registered snowmobiles make it through a season undetected.

“the percentage of fuel used by snowmobiles in an average year properly falls in the .75 of one percent range. The Departments of Administration, Transportation, Natural Resources, and Revenue are basically in agreement with this conclusion.”<sup>30</sup>

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### RECOMMENDATION

*The Legislature should reexamine the 1 percent allocation of gas tax collections to the snowmobile account.*

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If the Legislature were to reduce the snowmobile account’s allocation to 0.75 percent, the account’s annual revenues would decline by about \$1.25 million. Adoption of this recommendation would reduce the snowmobile account’s future fund balance and the amount that the Legislature could appropriate from the fund. For example, had the 0.75 percent rate been in effect for all of fiscal year 2002, 2002 snowmobile account receipts would have been reduced by about \$625,000. Instead of increasing by about \$250,000, the fund balance would have declined by about \$375,000 from its 2001 level. The fund balance at the end of 2002 would have been about \$4.7 million or about 52 percent of 2002 expenditures.

## All-Terrain Vehicle Gas Tax Study

There has only been one study of gasoline tax use by ATVs in Minnesota, and it was conducted in 1984 when ATVs were first regulated.<sup>31</sup> We found that:

- **The ATV gasoline consumption study is out-of-date and likely understates the percentage of gasoline consumption attributable to ATV use.**

Like the snowmobile studies, the ATV study used surveys to identify the number of ATVs (defined as three-wheeled vehicles with less than 800 cc engine capacity and under 600 lbs) in use and the number of miles they were driven each year. The authors estimated that there were 75,624 ATVs used for recreation, each consuming between 32 and 37 gallons per year, resulting in an estimate of 2.3 to 2.8 million gallons.<sup>32</sup> The authors reported that industry data indicated that ATV sales were increasing, so they selected the upper end of the range. This was about 0.15 percent of total gasoline consumption.

The ATV study has never been updated. Since 1984, the number of ATVs has increased significantly. There were almost 150,000 registered ATVs in Minnesota in 2001, or about twice the number estimated in the study. If the study’s estimate of 37 gallons per vehicle were applied to the 148,000 registered ATVs in 2001,

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**The number of ATVs has increased substantially since ATV gas consumption was estimated in 1984.**

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<sup>30</sup> Julie Smith Zuidema, DNR Deputy Commissioner, letter accompanying snowmobile gas tax study, March 23, 1998.

<sup>31</sup> Environmental Resources Management, *Three-Wheeled Off-Road Vehicle Consumption in Minnesota* (St. Paul: DNR, January 1985).

<sup>32</sup> The range resulted because the responses to a survey question about miles driven per year differed from the sum obtained by adding up the responses to questions about seasonal use.

the result would be a total of 5.5 million gallons of gasoline used by ATVs, or 0.22 percent of total gasoline consumption. This is probably still too low because it does not include unregistered vehicles, which according to a recent study, may number as much as 50 percent of registered vehicles.<sup>33</sup>

### RECOMMENDATION

*The Legislature should require DNR to conduct an updated gasoline usage study for ATVs.*

The updated study would probably increase receipts for the ATV account. The additional revenue could be used to implement the other recommendations in this report.

## Gas Tax Study for Other Off-Highway Vehicles

The percentages of gasoline taxes attributable to dirt bikes and 4X4 trucks were determined by research conducted in 1994.<sup>34</sup> In our view:

- **The study estimates a suspiciously high number of dirt bikes and 4X4 trucks used for recreational purposes, which calls into question the validity of the study.**

Like the snowmobile and ATV studies, this study also relied on surveys to estimate the number of vehicles and the amount of gasoline that they use. The authors sent a postcard to 20,000 randomly selected Minnesota households. The postcard listed four types of vehicles: motorcycle, ATV, 4X4, and bicycle. It asked, “How many of each vehicle do you own?” and, “How many of each vehicle do you ride on trails or in non-road areas for recreation?”<sup>35</sup> Based on the survey, the authors estimated that there were 123,000 4X4 trucks and 88,000 dirt bikes, which are substantially higher than the current registration of 1,416 4X4s and 6,274 dirt bikes in 2001. Part of the discrepancy may be explained by the fact that DNR only requires 4X4 trucks and dirt bikes to register if they operate on designated trails. People can use a 4X4 truck or dirt bike on the state’s 6,000 miles of undesignated trails without registering it. Nevertheless, we wonder whether some respondents may have misinterpreted the survey question. Perhaps they included all 4X4s, not just those driven off-road. The fact that there are so few enforcement actions related to those vehicles also raises doubt about the legitimacy of the estimates. In 2002, there were a total of 80 enforcement actions taken against 4X4 trucks and 241 against dirt bikes. In contrast, there were 2,545 actions taken against ATVs.

**While the 1994 gas tax study estimated there were 123,000 4X4 trucks used for off-road purposes, only 1,416 trucks were registered in 2001.**

<sup>33</sup> John P. Genereux and Michele Genereux, *An OHV Recreation Planning Tool Based on A Survey of Resource Managers and A Survey of Off-Highway Vehicle Riders in Minnesota* (St. Paul: DNR, July 2001), 3.

<sup>34</sup> Jerrilyn L. Thompson and Dorothy H. Anderson, *Off-Highway Motorcycle and Off-Road Vehicle Use and Gasoline Consumption in Minnesota*, (Maplewood, MN: Thompson-Anderson Forestry Consultants, February 1994).

<sup>35</sup> The response rate was only 45 percent so the authors telephoned a random sample of non-respondents. They obtained responses from 503 of them. They then weighted the telephone responses to represent the 55 percent who did not respond to the postcard survey.

After calculating estimates for the number of dirt bikes and 4X4s, the authors used another mailed questionnaire and follow-up telephone survey that asked respondents how many times the vehicle was used off-road in the past year and the average number of gallons of gas consumed each trip. The authors then multiplied the average gallons consumed per vehicle per year by their estimate of the number of vehicles to estimate total gasoline consumption attributable to dirt bikes and 4X4 trucks.<sup>36</sup>

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### RECOMMENDATION

*The Legislature should require DNR to conduct new studies of gasoline usage by dirt bikes and 4X4 trucks.*

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It is uncertain how implementation of this recommendation would impact the amount of gasoline taxes being transferred to the dirt bike and 4X4 accounts.

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<sup>36</sup> The authors concluded that dirt bikes used 1.2 million gallons of gas per year and 4X4 trucks used about 4.2 million gallons. Dividing this by 2 billion gallons of taxable gas sold in 1993, the authors concluded that dirt bikes paid 0.057 percent of the gasoline taxes and 4X4s paid 0.205 percent.