

US EPA ARCHIVE DOCUMENT

## Clean Water State Revolving Fund Green Project Reserve Funding Status

### I. INTRODUCTION

The American Recovery and Reinvestment Act of 2009 (ARRA) required state CWSRF programs to allocate 20 percent of their capitalization grants to the Green Project Reserve. This document summarizes the status of CWSRF funding of the Green Project Reserve (GPR) based on information reported by states in the CWSRF Benefits Reporting (CBR) system through March 17, 2010.<sup>1</sup> State reporting indicates that the GPR has been a resounding success.

### A. National Summary

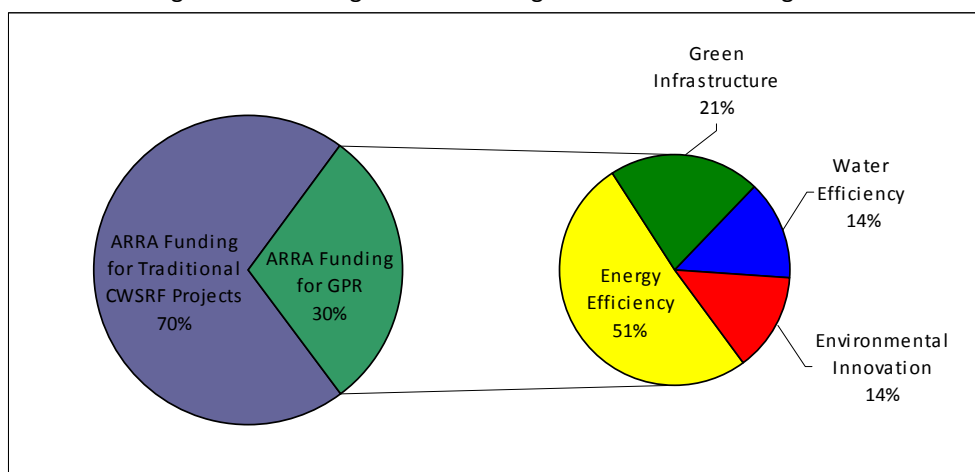
*Funding of the Green Project Reserve exceeds \$1.1 B.*

As of March 17, 2010, states are reporting over \$1.12 billion in executed funding agreements for GPR projects, representing approximately 30 percent of total ARRA funding for CWSRF projects. This includes entire projects and portions of projects that count towards the GPR. Projects in all four GPR categories – energy efficiency, water efficiency, green infrastructure, and environmental innovations – are being funded by states. Energy efficiency projects received over half (51 percent) of all GPR funding, while the rest of the funding was split between green infrastructure (21 percent), environmental innovations (14 percent), and water efficiency (14 percent) projects or project components.

#### National GPR Funding Per Category

Energy Efficiency – \$574 M  
Green Infrastructure – \$242 M  
Environmental Innovations – \$155 M  
Water Efficiency – \$154 M

Figure 1: Percentage of GPR funding allocated to GPR categories



<sup>1</sup> Numbers reported in this document may not match numbers in CBR summary reports because not all GPR funding has been categorized by states. Where CBR entries were incomplete, GPR funding was categorized based on project descriptions.

Although energy efficiency measures have received the most GPR funding, nearly as many green infrastructure projects and project components have been funded. ARRA projects incorporated approximately 284 energy efficiency components, 259 green infrastructure

**National Average GPR Funding Per Project or Project Component**

Energy Efficiency – 2.1 M  
Environmental Innovations – 2.0 M  
Water Efficiency – 1.4 M  
Green Infrastructure – 1.0 M

components, 111 environmentally innovative components, and 102 water efficiency components.<sup>2</sup> Total funding for energy efficiency is significantly higher than total funding for green infrastructure because projects with energy efficiency components are much more capital intensive, on average, than projects with green infrastructure components, which the state of Maryland clearly illustrates. Maryland funded 31 projects that qualified for the GPR. Of those, 28 (90 percent)

are for green infrastructure, and three (10 percent) are for energy efficiency measures. Even though nearly all of the GPR projects funded in Maryland were for green infrastructure, they account for only 63 percent of total GPR funding for the state. Each green infrastructure project or project component received an average of \$500,000, while each energy efficiency project or project component received \$2.7 million on average.

The national average and total funding for each GPR category are significantly impacted by the funding of a few disproportionately expensive projects. For example, New York is funding an energy efficiency project that includes construction of three new sludge tankers for transportation of treated sludge, resulting in reduced fuel usage and greenhouse gas emissions from fewer trips, at a cost of more than \$56 million.

GPR projects ranged from traditional efficiency improvements to more novel renewable energy and stormwater solutions. Energy efficiency projects included wastewater treatment plant upgrades with premium efficiency motors and pumps, installation of solar panels and wind turbines at wastewater treatment facilities, combined heat and power systems, and electrical system upgrades, among others. Water efficiency projects included rehabilitation of collection systems and pump stations with leaks, water treatment and conveyance upgrades for reuse facilities, rebates for upgrades to efficient fixtures, and installation of water meters, among others. Green infrastructure projects included installation of green roofs and rain gardens, restoration of riparian buffers and wetlands, and pervious pavement applications, among others. Innovative projects included construction of decentralized wastewater systems, POTW adaptation to impacts from climate change, and treatment facility improvements to remove nutrients from effluent and enhance biosolids recycling, among others.

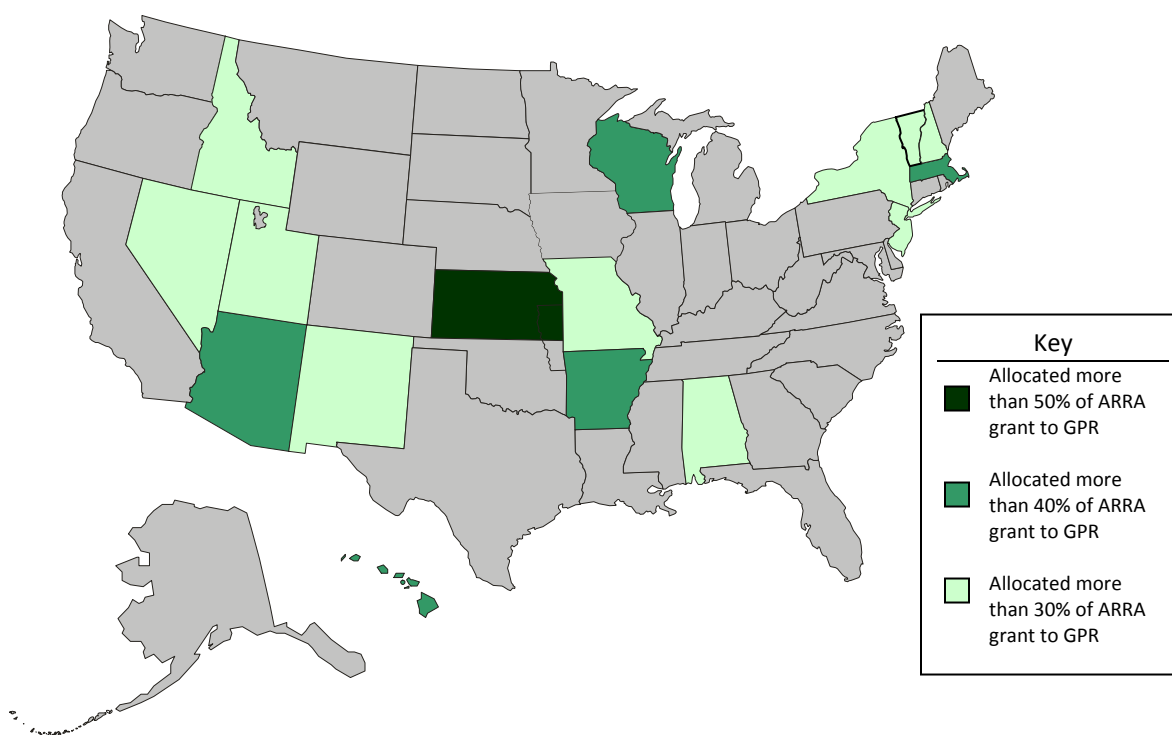
## B. Breakdown of GPR Funding by States and EPA Regions

*47 states and Puerto Rico funded beyond the 20 percent GPR requirement; on average, states allocated 29 percent of their ARRA grant awards to GPR-eligible projects.*

<sup>2</sup> Some projects included components from more than one GPR category. Accordingly, the numbers reported here do not match the number of assistance agreements/total number of projects (655) reported in CBR.

Every state is reporting 20 percent or more GPR funding in CBR. Forty-seven states and Puerto Rico funded beyond the 20 percent GPR requirement of ARRA. Kansas leads the way by allocating nearly 85 percent of its ARRA CWSRF grant to GPR-eligible projects or project components. No other CWSRF program allocated more than 50 percent of its ARRA CWSRF grant to GPR-eligible projects, but five other states<sup>3</sup> and Puerto Rico allocated at least 40 percent of their ARRA grant awards to GPR-eligible projects. Ten other states<sup>4</sup> allocated at least 30 percent of their ARRA grant awards to GPR-eligible projects. Table 1 in the Appendix to this document shows actual GPR funding by state and EPA region as compared to the 20 percent requirement for each state.

Figure 2: Percentage of state ARRA grants allocated to the Green Project Reserve



*Additional subsidization for GPR projects and project components attracted new borrowers to the CWSRF and increased borrower interest in incorporating green components into projects.*

It is difficult to generalize state subsidization policies and practices because there was substantial variability in the amount of subsidies awarded (ranging from 0 to 100 percent) and additional considerations such as financial capability. However, most states chose to use principal forgiveness to provide additional subsidization for GPR projects. No states offered negative interest, and only seven states offered grants.<sup>5</sup>

<sup>3</sup> Arizona, Arkansas, Hawaii, Massachusetts, and Wisconsin

<sup>4</sup> Alabama, Idaho, Missouri, Nevada, New Hampshire, New Jersey, New Mexico, New York, Utah, and Vermont

<sup>5</sup> States that offered grants include: Arkansas, Connecticut, Maryland, Missouri, New Mexico, New York, and Texas.

Most states did not offer GPR projects any additional subsidization beyond that provided to traditional CWSRF projects receiving ARRA funding. Notable exceptions were four states<sup>6</sup> that provided 100 percent subsidization for all GPR projects.<sup>7</sup> These states had no difficulty meeting the 20 percent requirement before the February 17<sup>th</sup> deadline. Indeed, all of them funded beyond the 20 percent GPR requirement.

Although states were not required to target additional subsidy based on affordability criteria, the Congressional Committee Report<sup>8</sup> strongly encouraged states to target additional subsidies to communities that could not otherwise afford a loan. Twelve states tied additional subsidization for GPR projects to community affordability or size in their Intended Use Plans. Pennsylvania was one of these states. It sought to apply its standard affordability analysis to determine whether and how much principal forgiveness an ARRA assistant recipient would receive, but it ended up providing 100 percent principal forgiveness for all GPR projects, regardless of affordability. It did so for three main reasons: many GPR projects were undertaken by non-profit organizations, making it difficult to assess their financial capability; most of the GPR projects did not involve users or user rates, making it difficult to apply standard affordability analysis; and even important municipally sponsored projects, such as reconditioning dirt and gravel roads to enhance bioinfiltration and reduce runoff, would not have occurred if the state provided loans. These considerations prompted Pennsylvania and other states to rethink how to apply affordability analysis in the GPR context.

Providing additional subsidization is a way to attract potential borrowers and project proposals that may not typically apply for SRF funding. Rod Geisler, Chief of the Municipal Programs Section of the Bureau of Water at the Kansas Department of Health and Environment, expressed the view that offering additional subsidization was critical in attracting borrowers who would not normally apply for CWSRF funding. States may have concerns about whether these types of recipients would take future CWSRF funding if it involved a loan, but technical assistance combined with an alternative and flexible repayment structure may increase the probability that these first-time recipients come back to the program in the future.

*States in EPA Regions 1 and 2 overwhelmingly funded energy efficiency projects; states in Regions 3 and 7 mostly funded stormwater projects; states in Region 6 mostly funded environmentally innovative projects; and states in Regions 8, 9, and 10 allocated significant funds to water efficiency projects.*

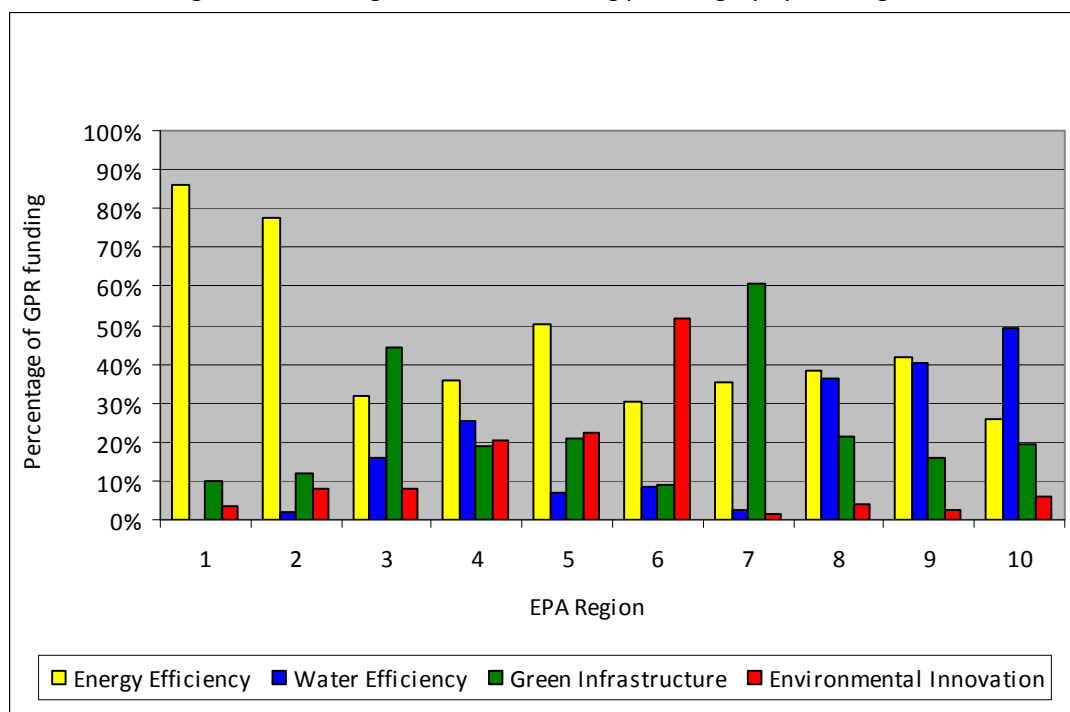
<sup>6</sup> This number is based on information reported in the states' intended use plans and CBR. States included in this count are: AK, MD, PA, and WY.

<sup>7</sup> Other states (HI, LA, NH, NM, MA, MS, OH, OK, VA, WV, WI) provided 100 percent subsidization for all ARRA projects, regardless of whether they qualify for the GPR.

<sup>8</sup> H. Rpt. 111-16, p. 443.

Decisions about what types of GPR projects to fund vary by state and EPA region. It is clear, however, that states in some regions emphasized particular types of projects. States in EPA Regions 1 and 2 allocated nearly \$264 million to energy efficiency projects – 80 percent of total GPR funding for the two regions. States in Region 6 mostly funded environmentally innovative projects, spending over \$42 million – 52 percent of total GPR funding for the Region. However, this is due in large part to a single environmentally innovative project being funded in Texas for over \$31 million. The City of Austin project involves upgrades at a biosolids recycling facility to enhance the treatment process and expand composting capabilities, which will reduce waste and save energy at the facility. States in Regions 3 and 7 funded over \$95 million in green infrastructure projects – 52 percent of total GPR funding in those Regions. States in Regions 8, 9, and 10 allocated over \$77 million to water efficiency projects – 42 percent of total GPR funding in those Regions. Table 2 in the Appendix to this document shows the amount of funding per category and the percentage of total funding per category for each Region.

Figure 3: Percentage of total GPR funding per category by EPA Region



It is difficult to draw general conclusions about geographical trends in project funding. However, states in the East are disproportionately funding energy efficiency projects, while states in the West are disproportionately funding water efficiency projects, as compared to the rest of the Nation. Regions 1 and 2 account for 46 percent of national funding for energy efficiency, while Regions 9 and 10 represent 42 percent of national funding for water efficiency.

*Factors influencing states to fund particular types of projects vary, ranging from state priorities and policies to legal authority to fund particular types of projects.*

Some state programs chose to prioritize certain types of projects and took steps to advance those priorities. For example, Massachusetts provided \$53 million for energy efficiency project components, more than 98 percent of its GPR funding and 40 percent of its ARRA CWSRF grant. In 2007, Massachusetts launched the first phase of its Energy Management Pilot for Drinking Water and Wastewater Treatment Facilities, which aimed to reduce emissions of greenhouse gases and the amount of energy water treatment facilities use by 20 percent. It advanced this initiative with ARRA funds by targeting energy efficiency projects for funding and providing 100 percent principal forgiveness to assistance recipients implementing those projects. Massachusetts' singular focus on energy efficiency projects greatly impacts aggregate numbers for Region 1 because it accounts for nearly 65 percent of total GPR funding for the Region.

Similarly, Kansas sought to promote particular types of projects by offering different amounts of subsidy for projects based on the types of GPR components included. For "innovative" green projects, including green stormwater management and environmentally innovative projects, Kansas provided 75 or 100 percent principal forgiveness. For "traditional" green projects, including energy and water efficiency improvements, Kansas provided 50 percent principal forgiveness.

Other state programs lack legal authority to fund particular types of projects. For example, Virginia does not have authority to fund many of the green infrastructure project types allowed by federal regulations (stormwater, wetlands, hydromodification, etc.). Instead, Virginia directed the bulk of its GPR funding to water reuse and energy efficiency projects.

## **II. CONCLUSION**

Based on data reported in CBR through March 17, 2010, it is clear that the Green Project Reserve achieved its intended purpose. The GPR drew significant attention from potential assistance recipients, and the 20 percent requirement was met by all states. Indeed, most states went above and beyond the 20 percent requirement to fund green projects that may not otherwise have been funded. Energy efficiency and green infrastructure projects were the most commonly funded types of projects, but all four categories of GPR projects received significant funding from states.



## Appendix

Table 1. GPR funding by EPA Region and State

	State	GPR Total (A)	GPR Required (B)	Percent of Required (A/B)
<u>Region 1</u>	CT	\$9,602,060	\$9,602,060	100%
	ME	\$8,719,000	\$6,067,360	144%
	MA	\$54,287,508	\$26,611,460	204%
	NH	\$11,894,205	\$7,832,780	152%
	RI	\$5,262,920	\$5,262,920	100%
	VT	\$6,871,754	\$3,847,820	179%
	<b>Total</b>	<b>\$96,637,447</b>	<b>\$59,224,400</b>	<b>163%</b>
<u>Region 2</u>	NJ	\$49,189,062	\$32,029,380	154%
	NY	\$157,703,989	\$86,512,840	182%
	PR	\$25,396,654	\$10,222,840	248%
	<b>Total</b>	<b>\$232,289,705</b>	<b>\$128,765,060</b>	<b>180%</b>
<u>Region 3</u>	DE	\$3,847,820	\$3,847,820	100%
	MD	\$21,888,425	\$18,956,920	115%
	PA	\$39,795,689	\$31,047,560	128%
	VA	\$16,182,463	\$16,040,660	101%
	WV	\$14,678,041	\$12,218,420	120%
	<b>Total</b>	<b>\$96,392,438</b>	<b>\$82,111,380</b>	<b>117%</b>
<u>Region 4</u>	AL	\$16,773,369	\$8,764,320	191%
	GA	\$17,338,258	\$13,252,200	131%
	FL	\$39,645,014	\$26,457,260	150%
	KY	\$10,412,792	\$9,975,620	104%
	MS	\$8,560,959	\$7,061,660	121%
	NC	\$14,380,823	\$14,145,820	102%
	SC	\$10,350,984	\$8,029,640	129%
	TN	\$12,668,222	\$11,386,080	111%
	<b>Total</b>	<b>\$130,130,421</b>	<b>\$99,072,600</b>	<b>131%</b>
<u>Region 5</u>	IL	\$40,769,501	\$35,448,620	115%
	IN	\$22,050,100	\$18,889,500	117%
	MI	\$34,214,330	\$33,701,800	102%
	MN	\$17,521,709	\$14,406,200	122%
	OH*	\$49,090,067	\$44,124,620	111%
	WI	\$52,583,575	\$21,189,660	248%
	<b>Total</b>	<b>\$216,229,282</b>	<b>\$167,760,400</b>	<b>129%</b>



<u>Region 6</u>	AR	\$10,268,353	\$5,293,920	194%
	LA	\$8,660,252	\$8,616,280	101%
	NM	\$7,141,688	\$3,847,820	186%
	OK	\$7,904,593	\$6,332,420	125%
	TX	\$46,935,740	\$35,824,380	131%
	<b>Total</b>	<b>\$80,910,626</b>	<b>\$59,914,820</b>	<b>135%</b>
<u>Region 7</u>	IA	\$11,655,000	\$10,608,000	110%
	KS	\$29,926,828	\$7,074,840	423%
	MO	\$39,896,687	\$21,728,360	184%
	NE	\$4,864,463	\$4,009,000	121%
	<b>Total</b>	<b>\$86,342,978</b>	<b>\$43,420,200</b>	<b>199%</b>
<u>Region 8</u>	CO	\$7,874,956	\$6,269,540	126%
	MT	\$5,378,965	\$3,847,820	140%
	ND	\$4,341,836	\$3,847,820	113%
	SD	\$3,935,128	\$3,847,820	102%
	UT	\$6,752,769	\$4,129,980	164%
	WY	\$5,310,432	\$3,847,820	138%
	<b>Total</b>	<b>\$33,594,086</b>	<b>\$25,790,800</b>	<b>130%</b>
<u>Region 9</u>	AZ	\$12,367,206	\$5,127,300	241%
	CA	\$76,467,705	\$56,057,160	136%
	HI	\$13,687,891	\$6,070,460	225%
	NV	\$7,158,673	\$3,847,820	186%
	<b>Total</b>	<b>\$109,681,475</b>	<b>\$71,102,740</b>	<b>154%</b>
<u>Region 10</u>	AK	\$6,000,000	\$4,691,000	128%
	ID	\$6,687,019	\$3,847,820	174%
	OR	\$11,565,340	\$8,854,200	131%
	WA	\$18,262,906	\$13,630,380	134%
	<b>Total</b>	<b>\$42,515,265</b>	<b>\$31,023,400</b>	<b>137%</b>
<b>NATIONAL TOTAL</b>		<b>\$1,124,723,723</b>	<b>\$768,185,800</b>	<b>146%</b>

Table 2. Total funding and percentage of total funding for each GPR category and EPA Region

		Energy Efficiency (A)	Water Efficiency (B)	Green Infrastructure (C)	Environmental Innovation (D)
<b><u>Region 1</u></b>	Current Funding	\$83,325,329	\$0	\$9,816,261	\$3,495,857
	Percent of Total	86%	0%	10%	4%
<b><u>Region 2</u></b>	Current Funding	\$180,518,176	\$4,828,189	\$28,207,628	\$18,735,712
	Percent of Total	78%	2%	12%	8%
<b><u>Region 3</u></b>	Current Funding	\$30,584,258	\$15,411,333	\$42,721,656	\$7,675,191
	Percent of Total	32%	16%	44%	8%
<b><u>Region 4</u></b>	Current Funding	\$46,550,373	\$32,738,531	\$24,507,106	\$26,334,411
	Percent of Total	36%	25%	19%	20%
<b><u>Region 5</u></b>	Current Funding	\$108,479,009	\$14,573,200	\$44,674,962	\$48,502,111
	Percent of Total	50%	7%	21%	22%
<b><u>Region 6</u></b>	Current Funding	\$24,727,981	\$6,826,094	\$7,349,863	\$42,006,688
	Percent of Total	31%	8%	9%	52%
<b><u>Region 7</u></b>	Current Funding	\$30,356,138	\$2,044,168	\$52,574,672	\$1,368,000
	Percent of Total	35%	2%	61%	2%
<b><u>Region 8</u></b>	Current Funding	\$12,873,072	\$12,142,277	\$7,198,737	\$1,380,000
	Percent of Total	38%	36%	21%	4%
<b><u>Region 9</u></b>	Current Funding	\$45,813,810	\$44,056,055	\$17,211,559	\$2,600,051
	Percent of Total	42%	40%	16%	2%
<b><u>Region 10</u></b>	Current Funding	\$10,916,552	\$20,914,136	\$8,165,325	\$2,519,252
	Percent of Total	26%	49%	19%	6%
<b>NATIONAL TOTAL</b>	Current Funding	<b>\$574,144,698</b>	<b>\$153,533,983</b>	<b>\$242,427,769</b>	<b>\$154,617,273</b>
	Percent of Total	<b>51%</b>	<b>14%</b>	<b>21%</b>	<b>14%</b>

Note: Percent of total is equal to the current funding for each GPR category divided by the sum of A+B+C+D.