Schedule 13
Funding Request for the 2014-15 Budget Cycle

Department: Natural Resources
Request Title: New Personnel
Priority Number: R-1

Dept. Approval by: Will H. Lorain 10/23/2013 (Date)

OSPB Approval by: 10/25/13 (Date)

- [x] Decision Item FY 2014-15
- [ ] Base Reduction Item FY 2014-15
- [ ] Supplemental FY 2013-14
- [ ] Budget Amendment FY 2014-15

Line Item Information	Fund	FY 2013-14 1 Appropriation FY 2013-14	FY 2013-14 2 Supplemental Request FY 2013-14	FY 2014-15 3 Base Request FY 2014-15	FY 2014-15 4 Funding Change Request FY 2014-15	FY 2015-16 5 Continuation Amount FY 2015-16
Total of All Line Items	**Total**	22,637,562	-	23,199,869	280,203	278,374
	FTE	245.1	-	245.1	3.7	4.0
	GF	18,847,672	-	19,408,617	280,203	278,374
	GFE	-	-	-	-	-
	CF	3,732,287	-	3,733,649	-	-
	RF	3,208	-	3,208	-	-
	FF	54,395	-	54,395	-	-
(1) Executive Director's Office, (A) Adminstration, Vehicle Lease Payments	**Total**	3,462,996	-	3,462,996	1,696	5,088
	FTE	-	-	-	-	-
	GF	312,940	-	312,940	1,696	5,088
	GFE	-	-	-	-	-
	CF	3,092,453		3,092,453	-	-
	RF	3,208	-	3,208	-	-
	FF	54,395		54,395	-	-
(7) Water Resources Division, (A) Division Operations, Water Adminstration	**Total**	19,174,566	-	19,736,873	278,507	273,286
	FTE	245.1	-	245.1	3.7	4.0
	GF	18,534,732	-	19,095,677	278,507	273,286
	GFE	-	-	-	-	-
	CF	639,834		641,196	-	-
	RF	-	-	-	-	-
	FF	-		-	-	-

Letternote Text Revision Required? Yes: [ ] No: [x] **If yes, describe the Letternote Text Revision:**

Cash or Federal Fund Name and COFRS Fund Number: N/A

Reappropriated Funds Source, by Department and Line Item Name: N/A

Approval by OIT? Yes: [ ] No: [ ] **Not Required:** [x]

Schedule 13s from Affected Departments: A copy of this request was submitted to the Department of Personnel & Administration

Other Information: None

Cost and FTE

- The Department requests $280,203 General Fund in FY 2014-15 to fund 3.7 FTE and $278,374 General Fund to fund 4.0 FTE ongoing for the Division of Water Resources (DWR) to assist in water administration statewide. This represents a 1.6% increase in DWR's FTE and a 1.4% increase to DWR's Water Administration line item.

Current Program

- DWR administers nine interstate compacts and over 170,000 water rights through 45,000 surface water structures and 270,000 groundwater wells in the water administration program.
- DWR maximizes the beneficial use of water in Colorado through intrastate water administration and compliance with interstate compacts. DWR maintains data on water rights and water diversions and monitors water supplies through stream flow measurements and groundwater regulation.

Problem or Opportunity

- DWR faces increasing water right allocation demands caused by new groundwater use rules in the Rio Grande basin, new well metering rules and the need for additional stream flow information in the South Platte River basin, and the need to coordinate data collected statewide by field personnel.

Consequences of Problem

- Without adequate monitoring and administration, water right owners may not receive their entitled amount of water and may lose income, e.g. a 1% error in the distribution of water rights has a monetary impact on state water right owners valued, conservatively, at $10 million dollars annually.
- Compact operations will not be sufficiently monitored, increasing the risk of compact violations. Previous compact violations on the Arkansas River basin cost Colorado more than $34 million.

Proposed Solution

- DWR requests 4.0 permanent FTE to administer 6,000 wells operating under seven new groundwater management subdistricts in the Rio Grande basin; to ensure the necessary level of integrity of data required for daily water rights administration and statewide planning models; to measure stream flow through new diversion structures in the South Platte River basin; and to administer new well metering rules affecting 8,000 wells in the South Platte River basin.
- Anticipated outcomes include the ability for water users to optimize their use of water without interfering with other water rights or the administration of interstate compacts.

Department Priority: R-1
Request Detail: Division of Water Resources – New Personnel

Summary of Incremental Funding Change for FY 2014-15	Total Funds	General Fund
Division of Water Resources – New Personnel	$280,203	$280,203

Problem or Opportunity:

The Division of Water Resources ("DWR") is requesting new personnel to address demands caused by new groundwater use rules in the Rio Grande basin, new well metering rules and the need for additional stream flow information in the South Platte River basin, and the need to coordinate data collected statewide by field personnel.

Water administration is vital to Colorado citizens in that it provides for dependable distribution of water and surety to water users/owners for a commodity valued in the billions of dollars annually. The Colorado General Assembly has tasked DWR with the administration of nine interstate compacts and over 170,000 water rights through 45,000 surface water structures and 270,000 wells. Factors complicating water administration include the volume and statewide distribution of water rights; management of Colorado's seven major drainages (including 80 sub-basins); the ability for citizens to appropriate new water rights and change old water rights; the need to incorporate the delayed impacts of groundwater use on stream systems and water rights; and the increasing complexity of court decrees (many new cases require modeling and complex accounting to determine water availability). Colorado must also assure that some water is delivered to adjoining states through interstate compacts. Interstate compacts are legally binding and enforceable contracts that are ratified by the legislative authority in each of the signatory states and by the U.S. Congress. Previous interstate compact violations have cost Colorado millions of dollars. In the Arkansas River basin, well pumping reduced compact deliveries to Kansas and resulted in an interstate lawsuit. Resolution of that lawsuit not only held Colorado liable for $34.7 million (excluding the potential settlement of an additional $4 million in court costs), but also resulted in strict well administration with a well measurement program requiring 14.0 new FTE. Water users in the Republican River basin (this area is referred to as Water Division No. 1) have expended over $100 million towards compact compliance since 2007 in response to interstate litigation.

DWR is dedicated to maximizing the beneficial use of water in Colorado through administration and to achieving 100% compliance with interstate compacts, as outlined in the Department of Natural Resources' Performance Plan. To accomplish these goals, DWR maintains data on water rights and water diversions and monitors water supplies through stream flow measurements and groundwater regulation. In addition to being used to administer the state's water supply, this data is also relied upon by water users, policy analysts, and numerous state and federal agencies as inputs to models to maximize Colorado water use and to develop water plans and policies. The State of Colorado has invested tens of millions of dollars in these

modeling efforts and continues to work toward water planning needed to guide future growth, including drafting the Colorado Water Plan. Failure to adequately coordinate the collection of this information will result in erroneous model results and poor water planning decisions.

The increased competition for water along the Front Range has resulted in a significant increase in the complexity of water rights administration. The key data required to achieve such administration is stream flow data. Plans for augmentation in the South Platte River basin require DWR to deliver and exchange water throughout the basin. In order to accomplish this, stream flow data is required at more locations. Well metering rules, implemented in 2012, require coordination in order for the testing to be effective and for the data to be reliable. In the Rio Grande basin, both groundwater use and well metering rules were implemented in the past five years. Without additional staff to administer increasingly complex water rights administration, the Colorado Water Plan will not be accurately informed, water right owners may not receive all of their entitled water and may lose out on potential income, and compact operations may not be made in a timely manner or in an adequate amount, which could lead directly to interstate litigation.

Rio Grande Basin – Subdistrict Coordinator

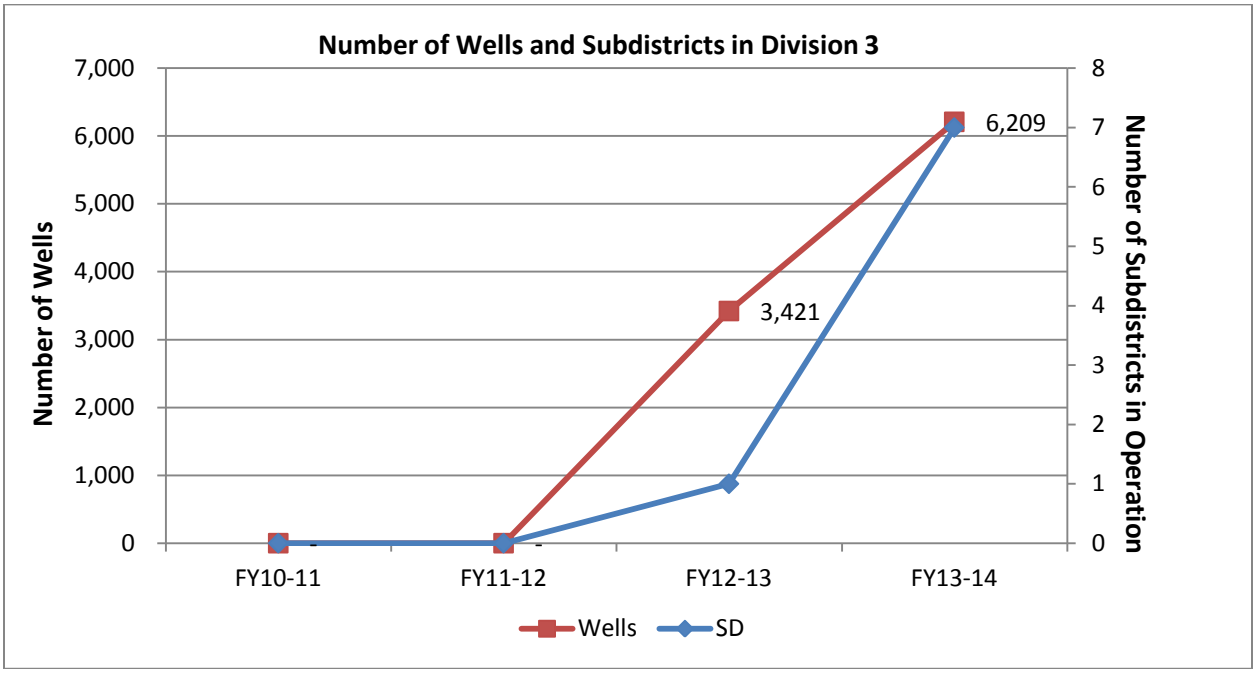
In 2004, the General Assembly authorized the creation of groundwater management subdistricts ("subdistricts") by passing S.B. 04-222. Subdistricts are geographic subunits of the Rio Grande Water Conservation District. S.B. 04-222, codified in Section 37-92-501(4)(b), C.R.S., encourages the use of subdistricts to protect senior water rights, to prevent the mining of the aquifers, and to protect the Rio Grande Compact. Each subdistrict created is an independent entity under the umbrella of the Rio Grande Water Conservation District and is charged with the responsibility of creating a plan of water management (with annual replacement plans) to further these goals, all under the purview of the State Engineer. Subdistricts will enable water right owners, through economies of scale, to more effectively manage operations and remedy impacts and depletions (in comparison to managing a multitude of individual augmentation plans). Minimizing the number of entities requiring administration also minimizes the number of additional FTE required to administer the plans.

Similar to augmentation plans, administration of groundwater management subdistricts involves the replacement or remedy of depletions on a daily basis requiring the use of reservoir releases, exchanges, substitutions, forbearance and fallowing agreements, and bypass flows. These operations must be integrated into daily river and reservoir operations and must be maintained by DWR water commissioners. This requires extensive coordination between the subdistrict personnel and the Water Division No. 3 office over the proper replacement amount, timing, location, and source of replacement water. The subdistricts rely on complex groundwater modeling, maintained and operated by DWR, to complete their groundwater management plans.

Currently, one subdistrict ("Subdistrict No. 1") is in place and operational; six additional subdistricts are organized and awaiting the implementation of the State Engineer's groundwater use rules that will provide them with the information required to know how much replacement supply will be needed for their organization. DWR anticipates that these additional subdistricts will become operational in late 2013. Subdistrict No. 1 is located in the heavily irrigated area north of the Rio Grande, within the "Closed Basin" of the San Luis Valley. It contains nearly 174,000 acres of irrigated farm land and approximately 3,500 irrigation wells. Subdistrict No. 1's plan of water management covers these irrigation wells and affects only the main stem of the Rio Grande. The six additional subdistricts will affect many other rivers and streams, some of them under compact administration. Subdistrict No. 1's daily operations include new reservoir storage, new exchanges, new releases, new accounting, new forbearance operations, new bypass operations, and new impacts on compact operations. Each of the subdistricts will require extensive record-

keeping in order to confirm that they are in compliance with their court approved plans. The subdistricts will develop these record-keeping processes, but it will be the responsibility of DWR to ensure compliance.

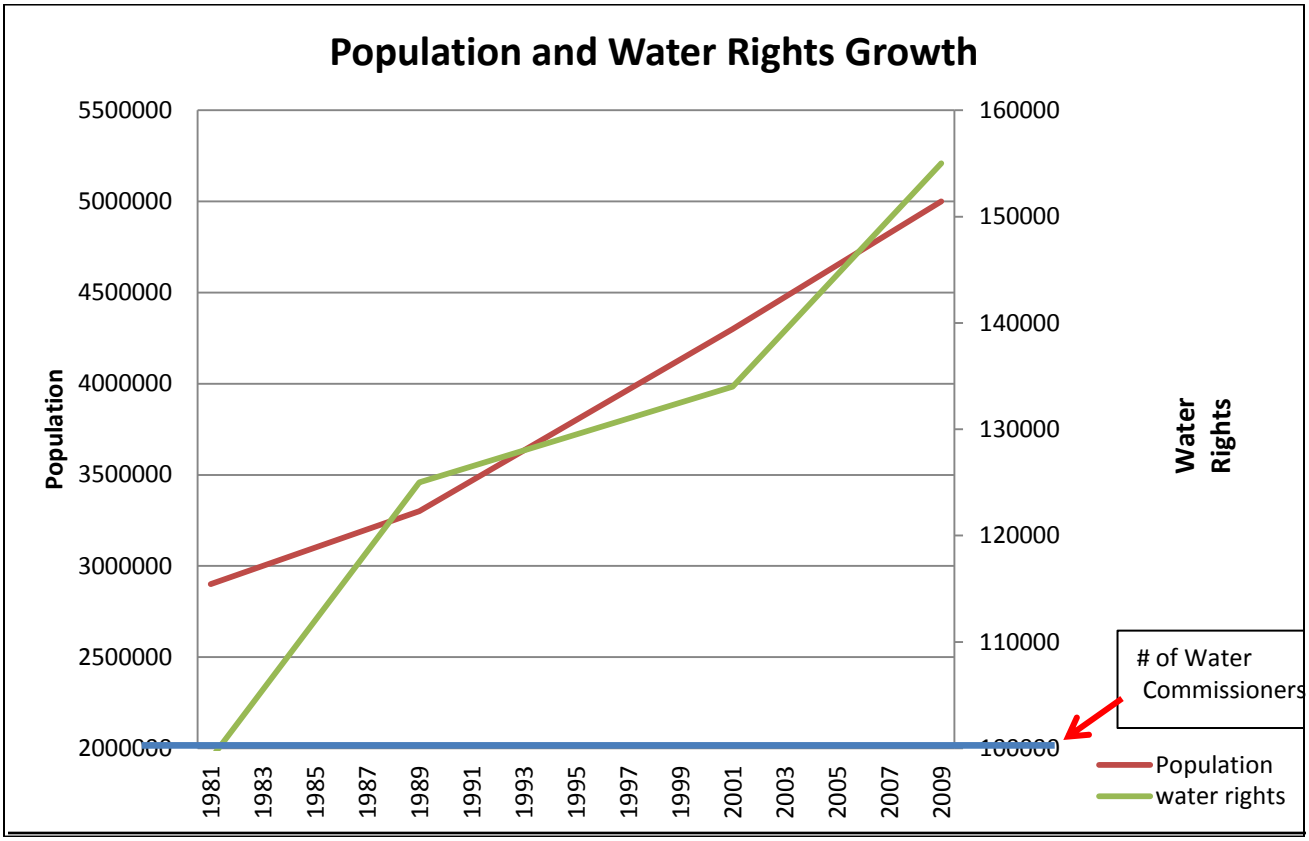
The following graph depicts the spike in workload associated with the seven subdistricts becoming operational. Also shown are the number of wells for Subdistrict No. 1 (3,421) and the anticipated increase when the remaining subdistricts go forward (6,209).



Water administration occurs every day in the Rio Grande basin due to compact requirements and the over-appropriated nature of the basin. With water commissioners busy trying to incorporate complex subdistrict operations into daily administration, it is highly likely that senior water rights holders will not receive their entitled amount of water or will suffer delays in receiving their water, which can lead to a significant economic impact and potential litigation. The workload increase on DWR staff from Subdistrict No. 1 is already negatively impacting the water administration of the Rio Grande main stem, an important element involved with compact delivery operations for the Rio Grande Compact. Currently, the water commissioners on the Rio Grande main stem are dealing with the day-to-day administration of the replacement water for Subdistrict No. 1. This has increased their workload substantially, to the point that it is interfering with the time needed to administer the river properly for local water administration as well as for Rio Grande Compact compliance. For example, the water commissioners, who were fully utilized before, now have to let other job duties lapse in order to assist with workload associated with Subdistrict No. 1. Consequently, the water commissioners are not able to turn headgates on or off in a timely manner, to the detriment of downstream users. Six more subdistricts will create additional workload pressures on the existing staff and will affect water users and compact administration in this and other areas in the Rio Grande basin. One of these pending subdistricts may also impact the Costilla Creek Compact. Under-delivery on the compact(s) can lead directly to interstate litigation and potential further curtailment of Colorado users' water rights. The requested FTE as detailed in the Proposed Solution section below will assist in alleviating these problems.

Statewide – Chief of Water Information

DWR, by statute, is organized geographically with a division office located in each of the seven cities where the major river basin's water courts are located. DWR has staff resources distributed in division offices across the seven basins in the state with high levels of proficiency in various business processes, including water rights tabulation, diversion records, groundwater enforcement, well metering, Geographic Information Systems ("GIS"), and electronic document management. While each division office administers water in the local river basin within the specific water law and natural conditions of their own river basin, DWR division offices, in reality, do more or less the same kind of work. Thus, the organizational challenge imposed by the geographic segregation is how to most effectively coordinate the similar business processes so that one, competent solution can be embraced instead of attempting to accommodate the inconsistencies and potential inaccuracies related to the different solutions developed by each of the division offices addressing the same information. Further, population growth and the associated increase in demand for water, as well as the growing complexity of water law, have greatly increased both the number of water rights, as shown in the graph below, and the complexity of information DWR needs to maintain.



The Chief of Water Information position is modeled after the industry role of a business process manager. As commonly described[1], a business process manager works to align an organization's business processes to provide the product, in this case information, desired by the user. The business process manager promotes effectiveness and efficiency, while striving for innovation, flexibility, and integration.

To demonstrate one such need for integration within DWR's operations, consider the issue of the increased complexity of water rights associated with any one of more than a hundred ditches in the South Platte River

[1] http://www.bpm-handbook.com

basin. Originally, almost all these structures did one thing—they diverted water for irrigation. When all the ditches performed a similar function, there was no need to coordinate administration systems because there was only one activity and only one way of doing that activity. In response to the increased competition for water, many of those ditches now have multiple owners and all the ditches have added a number of different uses, such as municipal, recharge, return flow maintenance, and augmentation. Multiply those changes by the diversity witnessed in seven different river basins, each with its own set of controlling compacts, and one can readily understand that absent the leadership required to achieve a single solution, multiple solutions with different kinds of information evolve. To complicate the issue even further, water rights information is just one facet of the increased complexity. When including remote data collection, automated gage stations, structure location, electronic communication and data transfer abilities, hydrogeological models for water planning and administration, electronic record keeping and permitting systems, and publication of all water data and records in as near real-time as possible, the need for an FTE to coordinate and control the business processes becomes evident.

Due to the economic downturn over the last several years, DWR was not able to request FTE to respond to the above mentioned demands. Without this position's leadership and guidance, inefficiencies and inconsistencies occurred in the data collected. This position will coordinate existing field resources to facilitate the single business process and information stream required for the planning and administration of water throughout the state and the sharing of that information with the public.

DWR has already demonstrated the effectiveness of embracing business process management in other aspects of its responsibilities. For example, approximately 25 hydrographers report administratively to the seven Division Engineers. The Chief of Hydrography, although not responsible for managing the FTE, provides critical program coordination, technical training, and consistent information management. The result is a single, consistent program as opposed to the seven previously different programs developed by each of the seven divisions. A single, consistent program facilitates information exchange, simplifies modeling tools, and enables real-time reporting. One demonstration of the value of such organization is the ability to share the data in near real time. Had DWR not had a Chief of Hydrography in place, the Division would not be able to publish stream flow information in near real time (stream flow data is updated every 15 minutes). The value of having this information 15 minutes after it is measured is demonstrated by the 35,000 hits this website gets on an average day and the more than 140,000 hits it received in one day during the recent flood. Providing this value requires planning, preparation, and process management. The requested FTE is required to provide the same kind of value to the water rights tabulation, diversion records, location information, and electronic document management related to water information that the Chief of Hydrography provides to stream flow.

Water users rely upon DWR information to assess the value and availability of their water right. Policy analysts and state/federal agencies use this information as the input to regional models evaluating everything from population migration to climate change to developing water plans and policies. The State of Colorado has invested tens of millions of dollars in models that rely primarily on the data compiled by these geographically dispersed teams. Because DWR has not been able to staff the requested FTE and provide the coordination required to provide a single product, questions about the consistency and accuracy in information have arisen. In some cases, this may raise concerns about the accuracy of multi-million dollar models as well as water rights tabulations which are essential to the administration of water rights. Unless DWR is able to staff this position, the inaccuracy of this critical information caused by inconsistent processes will only increase. Such inaccuracies could have millions of dollars worth of negative impacts to both private water right owners and the state as a whole as it regards compliance with interstate compacts and the development of the Colorado Water Plan.

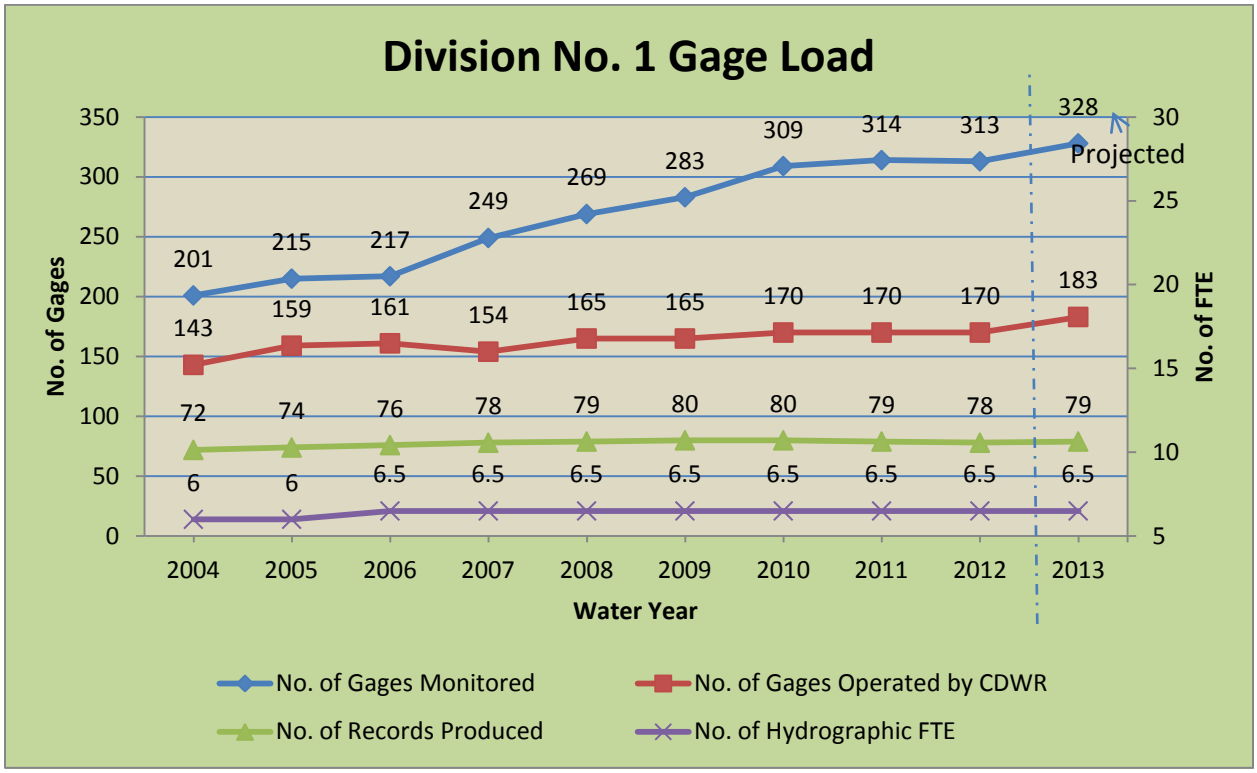
South Platte River Basin – Hydrographer

Hydrographers measure streams and diversions so DWR can correctly distribute water to water users. The South Platte River basin serves the largest population in the state, along with 831,000 irrigated acres. In this basin, water is in high demand but is limited in supply. Due to this demand, the enforcement of groundwater regulations in the South Platte River basin and the number of structures (requiring measurement) that are being incorporated into augmentation plans has increased. DWR operates satellite monitoring linked gages, performs stream measurements, and partners with conservancy districts to check water structures important to surface and groundwater operations. While there has been a steady increase in satellite monitoring gages, the larger impact is the stream measuring and structure measuring to assure optimum use of water for Colorado users. Municipalities, industries, agriculture, conservancy districts, water users, and interstate compact entitlements all compete for the same limited resource. Thus, water court decree requirements are becoming more complex and have placed increased workload demands on the Water Division No. 1 staff; especially for measurement device administration responsibilities on stream gage and surface water diversion structures.

Stream gages are used to assure that water rights are properly administered and to adhere to interstate compacts. Hydrographers must visit stream gages, water diversions, and structures to measure water flow, verify that the devices are working, and perform routine maintenance in accordance with Section 37-92-301(1), C.R.S. In order to guarantee accurate data is being transmitted, hydrographers must physically inspect equipment and perform routine maintenance. Stream gages and diversion measurement structures require constant calibration to assure they properly report the actual amounts of water. Mis-calibrated gages result in water uses not receiving all of their entitled water. Therefore, it is critical to visit the sites to confirm that they are being maintained and are operating correctly to allow continued accurate operations. It is necessary to frequently inspect the structures, conduct measurements at each site under differing stage conditions (flow rates), and develop stage-discharge curves for each site that accurately correlate the measurement device readings to the actual flows.

The number of satellite monitoring gages in Water Division No.1 has increased from 154 in 2007 to an estimated 170 in 2012. An additional 15 to 20 gages are anticipated to come into the satellite monitoring system network in the next few years. The Water Division No. 1 hydrographic staff is assisting the conservancy districts in monitoring an additional 80 to 90 stations needed for augmentation operations, all have been incorporated within the last five years. The hydrographic staff workload for satellite monitoring gages alone has gone from 22 stations per FTE in 2008 to 27.75 stations per FTE in 2013 (this does not include the augmentation structures). Additionally, Water Division No. 1 is a large geographic area, with hydrographers driving significant distances to maintain gages as well as satellite equipment, to publish records, and to conduct regular measurement and rating updates at 170 gages. This workload cannot be absorbed by existing personnel.

The following graph shows what the Water Division No. 1 gage load would be if all the requested stream gages in Water Year 2012 were visited.



The requested FTE as detailed in the Proposed Solution section below will allow water users to get their allotted use of water in a timely fashion.

South Platte River Basin – Well Technician

DWR currently does not have staff available to notify water users, to collect and process data submitted, or to digitally archive and process metering reports, certification reports, and violation orders associated with recently promulgated well measurement rules in the South Platte River basin.

Due to the increased complexity of water administration, the promulgation of the South Platte River Basin Tributary Groundwater Measurement Rules ("South Platte Measurement Rules") was necessary. The South Platte River basin has over 8,000 high capacity wells serving large municipal areas and has approximately 850,000 acres of irrigation in the basin. Groundwater pumping affects aquifers and stream flows and thus has a direct impact to senior surface water rights holders. This has been the subject of several court and legislative actions during the last ten years that require strict administration of groundwater use. In response, many well users have acquired decrees with severe limitations on how and when their wells may be used that include a requirement to install measurement devices. The South Platte Measurement Rules provide standards and frequency for well diversions measurement accuracy, installed measurement device testing, well diversion reporting, and noncompliance.

The South Platte Measurement Rules were decreed by the Water Division No. 1 Water Court in March 2013, with an effective date of December 31, 2013. Approximately 8,000 wells are within the scope of the South Platte Measurement Rules. The amount of required data submittal associated with an adequate well measurement accuracy program is intensive, especially in the initial years of implementation. This has increased the workload on the Water Division No. 1 staff to verify and to confirm that measurement devices are designed and installed adequately, are operated accurately, and are maintained in adequate operating condition. The requested FTE, as detailed in the Proposed Solution section below, will assist in alleviating the additional workload associated with the South Platte Measurement Rules.

Proposed Solution:

In order to meet the Department's statutory obligations and administer waters throughout the state, DWR is requesting $280,203 General Fund and 3.7 FTE for FY 2014-15 and $278,374 General Fund and 4.0 FTE for FY 2015-16 and beyond due to pay-date shift considerations. This request would be an increase of approximately 1.6% in DWR's FTE. DWR is requesting 4.0 permanent FTE positions to: (1) administer approximately 6,000 wells operating under seven new groundwater management subdistricts in the Rio Grande basin; (2) manage DWR's business processes (involving over 40.0 FTE spread statewide across seven water divisions) and ensure the necessary level of integrity of the data required for daily water rights administration and statewide planning models; (3) measure flow through the 10% increase in new diversion structures in the South Platte River basin; and (4) administer new well metering rules and associated pumping data affecting approximately 8,000 wells in the South Platte River basin. Below are the proposed solutions by geographic area.

Rio Grande Basin – Subdistrict Coordinator

DWR requests $67,427 in Personal Service dollars, 0.9 FTE (annualized to 1.0 FTE in FY 2015-16 due to pay-date shift considerations), and $5,653 in operating dollars for a total of $73,080 in FY 2014-15 for a Subdistrict Coordinator in the Rio Grande basin. This position is for a Physical Science Researcher/Scientist III (PSRS III) to administer operational plans to bring approximately 6,000 wells into the administrative process for the first time.

The requested FTE will coordinate the multiple subdistrict operations and multiple river administration activities. Additionally, they will analyze subdistrict operational plans to verify compliance with approved water court decrees. This position will oversee various aspects of the work of water commissioners, administration staff, and hydrographers working on subdistrict related projects.

It is estimated that 12 staff members from the Division No. 3 office currently spend in excess of 2,100 hours a year handling additional workload resulting from Subdistrict No. 1. This includes water commissioners, well commissioners, assistant Division Engineers, and the Division Engineer. For example, Subdistrict No. 1 currently has monthly meetings that the Division Engineer for Water Division No. 3 is obligated to attend; these meetings usually last four hours. It is assumed that the other six pending subdistricts will have a similar number of meetings. Additionally, subdistricts have the ability to call special meetings, as needed, requiring attendance by a DWR employee. With seven subdistricts operating, this one function alone could entail three to four full days of meetings per month, or 16% of a full time employee's work time. The requested position will take over this duty from the Division Engineer and will act as the communication liaison with subdistrict staff.

In the absence of seven subdistricts, DWR would be faced with hundreds of augmentation plans, all of which would require additional FTE to administer. When implementing similar regulations on wells in the South Platte and Arkansas River basins, over 200 new plans for augmentation were required. This resulted in DWR requesting 8.5 new FTE in the South Platte River basin and 14.0 new FTE in the Arkansas River basin to administer groundwater and the associated augmentation plans. By applying lessons learned from the South Platte and Arkansas River basins, DWR has encouraged and the General Assembly has approved the creation of subdistricts in the Rio Grande basin to manage the operational plans. Creating subdistricts enables Colorado to minimize the number of FTE required to administer the operational plans. DWR believes 1.0 FTE will be sufficient to coordinate operations of all the subdistricts; however, each subdistrict will have an individual groundwater management plan which will have individual replacement and sustainability obligations. Until those plans are operational, DWR cannot evaluate further staffing needs.

Statewide – Chief of Water Information

DWR is requesting $83,974 in Personal Service dollars, 0.9 FTE (annualized to 1.0 FTE in FY 2015-16 due to pay-date shift considerations), and $5,653 in operating dollars for a total of $89,627 in FY 2014-15 to provide a Chief of Water Information. This position will be a Physical Science Researcher/Scientist V (PSRS V) at senior staff authority level and will provide leadership and organization to field staff focused on water rights tabulation, diversion records, structure location, and electronic workflow processes:

- Tabulation (Section 37-92-401, C.R.S.) is the process of developing and maintaining the lists of water rights. This includes the determination of the priority with regard to other rights, as well as the listing of the limitations on the use of a right. Tabulation is essential to administering water rights and is helpful for informing the public on the status of specific water rights.
- Diversion records are official records of the use of a water right. Both tabulation and diversion records are used as inputs to models for planning and policy purposes. This information forms the basis for the value of the water right. A water right that has no diversions is subject to abandonment. The records of diversions are used by water right owners to determine the limits for a change of use (for example: irrigation to municipal use) and thus, are vital to the users and to the courts. As an example of the need for accurate data and systems for diversion records, in 2013 the Rio Grande Water Conservation District developed a $140 million Conservation Reserve Enhancement Program ("CREP") program to fallow lands and to reduce water use. The CREP program need is based on a model using diversion and metering data to determine groundwater impacts in that basin. As another example, the Central Water Conservancy District assesses users $750 per acre-foot of water for excess use, also based on diversion records, under their augmentation plan (100 acres of corn will consume approximately 200 acre-feet of irrigation water).
- Accurate, consistent location information is needed for effective administration and is critical for models being used to maximize the beneficial use of compact allotments, agricultural fallowing programs, stream and groundwater flow models, and to plan future water supply. Without a consolidated business process, this information becomes vulnerable to being inconsistent and unreliable.
- The electronic workflow processes are developed to handle the complex sets of information needed to administer water rights and assure users are receiving their legal supply and maintaining the value of the water rights. Expanding the use of such processes will significantly improve the effectiveness of the information produced while minimizing the associated effort and environmental impact that are required to perform the work.

South Platte River Basin - Hydrographer

DWR requests $47,369 in Personal Service dollars, 0.9 FTE (annualized to 1.0 FTE in FY 2015-16 due to pay-date shift considerations), and $23,487 in operating costs for a total of $70,856 in FY 2014-15 for a Hydrographer in the South Platte River basin (this area is also referred to as "Water Division No. 1"). This request is for an Engineer/Physical Scientist Technician II (EPST II). This position will assist in the administration, maintenance, and management of the workload associated with additional stream gages and diversion measurement structures. Additionally, this request is for one ½ ton 4WD pickup truck with a topper, one set of hydrographer equipment, and operating dollars. The requested vehicle will be bi-fuel with the capability to use compressed natural gas (CNG). A state leased vehicle, specialized with secure toolboxes and a heavy duty shell, is needed to securely store the field equipment. In some cases, the vehicle will tow a large trailer fully loaded with equipment (please refer to photograph #1 and #2). Hydrographers are often traveling on remote, rugged, two-tracked roads in order to access gages or Snotel sites for data collection. As mentioned above, there are instances where ATVs are necessary to be able to access sites and must either be placed in the back of the pickup truck or on a trailer for transport.

If the requested hydrographer is funded, it will help ensure court decrees are properly administered and that water diversions are made appropriately. Further, DWR will be able to verify compliance with water court decrees as it relates to surface water measurements. The South Platte River basin has the most extensive system of augmentation plans, recharge structures, wells, and surface diversions in the state. Also, the South Platte River basin is the most litigious, with an average of 352 cases filed annually. Misadministration may lead directly to costly litigation and to a lost opportunity for Colorado to fully utilize the basin supply before it leaves the state.

Picture #1: Typical equipment carried by hydrographers

Picture #2: Vehicle fully loaded with hydrography equipment

South Platte River Basin – Well Technician

DWR requests $40,987 in Personal Service dollars, 0.9 FTE (annualized to 1.0 FTE in FY 2015-16 due to pay-date shift considerations), and $5,653 in operating dollars for a total of $46,640 in FY 2014-15 for a groundwater technician in the South Platte River basin (also referred to as "Water Division No. 1"). This position is for a Technician III and will handle additional workload demands due to the new well metering requirements pursuant to recently promulgated well metering rules. Workload associated with the South Platte Measurement Rules requires a large amount of effort to research original water rights decrees and augmentation plan decrees. This information must be used to correctly identify and to adequately manage current and proposed DWR databases. This requires that submittals are received in a correct and timely manner, analyzed, approved or denied, entered into a database, and digitally archived. Additionally, correspondence in the form of E-mails or letters will be required. Based upon experience with similar measurement rules in other water divisions, DWR estimates that during the initial phase of implementation, the requested position will process approximately 14,500 forms and correspondence equating to approximately 62,000 individual pages each year. After the initial years of implementing the new well metering rules, the requested position will process approximately 8,100 forms and 27,200 pages to maintain compliance annually.

ADMINISTRATION—INITIAL YEARS

	#Forms	#Pages
Notice of Inactivation	2,000	4,000
Notice of Measurement Accuracy	5,500	38,500
Variance Request	1,100	7,700
Annual Usage (Monthly submit annual)	5,500	11,000
DWR Correspondence	400	800
TOTAL	**14,500**	**62,000**

ADMINISTRATION – ANNUALLY

	#Forms	#Pages
Notice of Inactivation	200	400
Notice of Measurement Accuracy	2,000	14,000
Variance Request	200	1,400
Annual Usage (Monthly submit annual)	5,500	11,000
DWR Correspondence	200	400
TOTAL	**8,100**	**27,200**

The requested position will notify water users, collect and process data submitted, and digitally archive and process metering reports, certification reports, and violation orders associated with the recently promulgated well measurement rules in the South Platte River basin. This position will remain in the office, acting as the first line of contact for the office via walk-ins and phone calls regarding the South Platte Measurement Rules.

If the requested position is not funded, DWR will not be able to handle the volume of water user records required to administer water rights in the South Platte River basin. Further, there would be an inadequate level of administration to assure compliance with the court decrees and measurement rules. Additionally, lack of staffing exposes Colorado to possible interstate litigation from Nebraska as many of the subject wells are in the area of the South Platte basin covered by the South Platte River Compact.

Anticipated Outcomes:

Rio Grande Basin – Subdistrict Coordinator

As required by court rulings from the Water Court and Supreme Court, each subdistrict must draft a groundwater management plan to dictate how they will replace their depletions to the stream within their area. Additionally, subdistricts must draft annual replacement plans for approval by the State Engineer and must submit a review of the adequacy of the previous year's annual replacement plan. These reviews, completed by DWR, are labor intensive and involve review of replacement water right portfolios, forbearance agreements, fallowing agreements, exchange plans, reservoir storage, forecasts of river flows, operational details, compact operations, and an understanding of water administration in the Rio Grande basin. Annual replacement plans require significant time from water commissioners and other staff; review of the plans occurs at a time when water operations are starting, thus affecting the delivery of water to Colorado users and to the Rio Grande Compact. The requested position would coordinate the replacement operations requirements from these groundwater management plans of all subdistricts. The creation of this new position would shift the burden of the additional daily operations from existing staff, so that they may concentrate on existing priorities on the Rio Grande and other rivers and streams in the basin.

Statewide – Chief of Water Information

DWR relies heavily on consistent and efficient business processes and business solutions to leverage staff to accommodate increasing water administration demands driven by competition for scarce water supplies. In order to meet the demands of water users for water rights information and to stay current with water administration needs, effective coordination of the businesses processes are needed. This requested position will provide the coordination required to provide reliable water information.

South Platte River Basin - Hydrographer

The hydrographic position will be used to support sometimes hourly water administration needs in the South Platte River basin. The anticipated outcome of hiring this position is that it will assure that water users can optimize the use of water without interfering with other water rights or the administration of the South Platte River Compact. The growing number of stream gages in the South Platte River basin will be maintained in an adequate and timely manner for efficient operation.

South Platte River Basin – Well Technician

The implementation of metering rules assures that all users are treated equally, that actual pumping is recorded, and that actual impacts due to groundwater use are assessed. This will assure that senior water users are protected and that the South Platte Compact is properly administered. This position will assure the reporting required is integrated into the administrative system efficiently so that users have the ability to make optimal utilization of the limited water supplies in the South Platte River basin.

Assumptions and Calculations:

The Personal Services estimate is based on the minimum salary for each position. FTE amounts for FY 2014-15 were calculated as 0.9 FTE per position due to pay-date shift considerations. PERA and Medicare estimates were calculated as 10.15% and 1.45% of base salaries, respectively. Operating dollars are estimated using OSPB's Common Policies, equating to $5,653 per new FTE. Vehicles are based on the current cost of $424 per month to lease a compressed natural gas (CNG) vehicle for 96 months, estimated driving of 20,400 miles at $0.388 per mile, and a cost of $1,500 to add a topper onto the new vehicle. The cost of new well testing equipment is estimated to be $12,000. Below is a breakdown by each requested position for FY 2014-15. Please see attachment for detailed FTE calculations.

Rio Grande Basin – Subdistrict Coordinator
DWR requests $67,427 in Personal Service dollars and $5,653 in operating dollars, for a total of $**73,080**.

Statewide – Chief of Water Information
DWR requests $83,974 in Personal Service dollars and $5,653 in operating dollars for a total of $**89,627.**

South Platte River Basin – Hydrographer
DWR requests $47,369 in Personal Service dollars and $23,487 in operating costs for a total of $**70,856**. This includes one ½ ton CNG 4WD pickup truck with a topper ($5,834), one set of hydrographer equipment ($12,000), and operating dollars ($5,653).

South Platte River Basin – Well Technician
DWR requests $40,987 in Personal Service dollars and $5,653 in operating dollars for a total of $**46,640**.

Supplemental, 1331 Supplemental or Budget Amendment Criteria:
Not applicable.

Calculation Assumptions:

Personal Services -- Based on the Department of Personnel and Administration's August 2011 Annual Compensation Survey Report, a [POSITION] at the [BOTTOM, MIDDLE, OR TOP] of the pay range will require a monthly salary of $#,###.

Operating Expenses -- Base operating expenses are included per FTE for $500 per year. In addition, for regular FTE, annual telephone costs assume base charges of $450 per year.

Standard Capital Purchases -- Each additional employee necessitates the purchase of a Personal Computer ($900), Office Suite Software ($330), and office furniture ($3,473).

General Fund FTE -- New full-time General Fund positions are reflected in FY 2014-15 as 0.9166 FTE to account for the pay-date shift.

Expenditure Detail		FY 2014-15		FY 2015-16	
Personal Services:		FTE	$	FTE	
Physical Science Researcher/Scientitist III (Subdistrict Coordinator)	Monthly Salary $ 5,493	0.9	60,419	1.0	65,916
PERA			6,132		6,690
AED			-		-
SAED			-		-
Medicare			876		956
STD			-		-
Health-Life-Dental			-		-
Subtotal PSRS III, #.# FTE		0.9	**$ 67,427**	1.0	**$ 73,562**
Physical Science Researcher/Scientitist V (Chief of Water Information)	Monthly Salary $ 6,841	0.9	75,246	1.0	82,092
PERA			7,637		8,332
AED			-		-
SAED			-		-
Medicare			1,091		1,190
STD			-		-
Health-Life-Dental			-		-
Subtotal PSRS V, #.# FTE		0.9	**$ 83,974**	1.0	**$ 91,614**
Technician III (Well Technician)	Monthly Salary $ 3,339	0.9	36,726	1.0	40,068
PERA			3,728		4,067
AED			-		-
SAED			-		-
Medicare			533		581
STD			-		-
Health-Life-Dental			-		-
Subtotal Tech III, #.# FTE		0.9	**$ 40,987**	1.0	**$ 44,716**

Engineer/Physical Scientist	Monthly Salary					
Technician II (Hydrographer)	$ 3,859	0.9		42,446	1.0	46,308
PERA				4,308		4,700
AED				-		-
SAED				-		-
Medicare				615		671
STD				-		-
Health-Life-Dental				-		-
Subtotal EPST II, #.# FTE		0.9	**$**	**47,369**	1.0	**$ 51,679**
Subtotal Personal Services		3.7	**$**	**239,756**	4.0	**$ 261,571**
Operating Expenses						
Regular FTE Operating	500	4.0		2,000	4.0	2,000
Telephone Expenses	450	4.0		1,800	4.0	1,800
PC, One-Time	1,230	4.0		4,920	4.0	
Office Furniture, One-Time	3,473	4.0		13,892	4.0	
Vehicle Lease				1,696		5,088
Vehicle Mileage				2,638		7,915
Vehicle Topper				1,500		
Hydrographer Equipment				12,000		
Subtotal Operating Expenses			**$**	**40,446**		**$ 16,803**
TOTAL REQUEST		3.7	**$**	**280,203**	4.0	**$ 278,374**
General Fund:		*3.7*	*$*	*280,203*	*4.0*	*278,374*
Cash funds:		-	*$*	-	-	-
Reappropriated Funds:		-	*$*	-	-	-
Federal Funds:		-	*$*	-	-	-

Schedule 13
Funding Request for the FY 2014-15 Budget Cycle

Department: Department of Personnel & Administration

Request Title: DNR New Personnel

Priority Number: NP - 11

Dept. Approval by: Kristin F. Rozansky 10/24/13 Date

OSPB Approval by: 10/24/13 Date

- ☑ Decision Item FY 2014-15
- ☐ Base Reduction Item FY 2014-15
- ☐ Supplemental FY 2013-14
- ☐ Budget Amendment FY 2014-15

Line Item Information	Fund	FY 2013-14 1 Appropriation FY 2013-14	FY 2013-14 2 Supplemental Request FY 2013-14	FY 2014-15 3 Base Request FY 2014-15	FY 2014-15 4 Funding Change Request FY 2014-15	FY 2015-16 5 Continuation Amount FY 2015-16
Total of All Line Items	Total	$18,014,816	$0	$18,197,990	$1,696	$5,088
	FTE	0.0	0.0	0.0	0.0	0.0
	GF	$0	$0	$0	$0	$0
	GFE	$0	$0	$0	$0	$0
	CF	$0	$0	$0	$0	$0
	RF	$18,014,816	$0	$18,197,990	$1,696	$5,088
	FF	$0	$0	$0	$0	$0
(4) Central Services (C) Fleet Management Program and Motor Pool Services, Vehicle Replacement Lease, Purchase or Lease/Purchase	Total	$18,014,816	$0	$18,197,990	$1,696	$5,088
	FTE	0.0	0.0	0.0	0.0	0.0
	GF	$0	$0	$0	$0	$0
	GFE	$0	$0	$0	$0	$0
	CF	$0	$0	$0	$0	$0
	RF	$18,014,816	$0	$18,197,990	$1,696	$5,088
	FF	$0	$0	$0	$0	$0

Letternote Text Revision Required? Yes: ☐ No: ☑ If yes, describe the Letternote Text Revision:

Cash or Federal Fund Name and COFRS Fund Number: Fund 607 - Fleet Management

Reappropriated Funds Source, by Department and Line Item Name:

Approval by OIT? Yes: ☐ No: ☐ Not Required: ☑

Schedule 13s from Affected Departments: N/A Corresponding Request

Other Information: