STATE OF COLORADO

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TO: Colorado Water Conservation Board Members

FROM: Jonathan Hernandez, P.E., Project Manager
Kirk Russell, P.E., Chief
Finance Section

DATE: May 9, 2014

SUBJECT: **Agenda Item 29b, May 21-22, 2014 Board Meeting**
Chatfield Reallocation Project Loans
Castle Pines Metropolitan District

Introduction

The Castle Pines Metropolitan District (District), acting by and through its water activity enterprise, is requesting a loan for its participation in the Chatfield Reallocation Project (Reallocation). The Reallocation is included in the 2014 CWCB Projects Bill (HB14-1333). For the purposes of this loan, the District's participation in the Reallocation is defined as the Project. The goal of the Project is to increase the permanence and reliability of its water supply by reducing its dependence on non-renewable water supplies. The District's total participation cost (Project cost) is estimated to be $5,550,000. The District is requesting a loan from the CWCB for 90% of its Project cost. See attached Project Data Sheet for a location map and a Project summary.

Staff Recommendation

Staff recommends the Board approve a loan not to exceed $5,050,000 ($5,000,000 for Project costs and $50,000 for the 1% Loan Service Fee) to the Castle Pines Metropolitan District, acting by and through its water activity enterprise, for its participation in the Chatfield Reallocation Project, from the Severance Tax Perpetual Base Fund. The loan terms shall be 30 years at the high-income municipal interest rate of 3.0% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

(INFORMATION IN SMALL CAPS IS COMMON TO ALL CHATFIELD REALLOCATION LOANS)

CHATFIELD REALLOCATION PROJECT

CHATFIELD DAM AND LAKE (CHATFIELD) IS AN ON-STREAM RESERVOIR BUILT IN 1973. IT IS LOCATED IMMEDIATELY DOWNSTREAM OF THE SOUTH PLATTE RIVER AND PLUM CREEK CONFLUENCE ABOUT 8 MILES SOUTH (UPSTREAM) OF DENVER. CHATFIELD CONSISTS OF AN EARTHFILL DAM APPROXIMATELY 13,000 FEET LONG WITH A TOP WIDTH OF 30 FEET AND A MULTI-PURPOSE RESERVOIR WITH A STORAGE CAPACITY BELOW THE SPILLWAY OF APPROXIMATELY 235,000 ACRE-FEET (AF). DENVER WATER IS CURRENTLY THE SOLE USER OF CHATFIELD FOR WATER SUPPLY AND HAS THE EXCLUSIVE RIGHT TO STORE WATER IN THE CONSERVATION POOL (BETWEEN 5423 AND 5432 MSL). COLORADO PARKS & WILDLIFE MANAGES CHATFIELD'S RECREATIONAL AND FISH AND WILDLIFE USE THROUGH CHATFIELD STATE PARK. THE US ARMY CORPS OF ENGINEERS (CORPS) MANAGES THE FLOOD CONTROL USE, PROVIDING FLOOD PROTECTION TO THE DENVER METRO AREA.

IN THE MID-1990S, THE COLORADO DEPARTMENT OF NATURAL RESOURCES (DNR), ACTING THROUGH THE COLORADO WATER CONSERVATION BOARD (CWCB) AND ON BEHALF OF NUMEROUS LOCAL WATER PROVIDERS, REQUESTED THE CORPS TO REALLOCATE A PORTION OF CHATFIELD'S FLOOD CONTROL STORAGE TO CONSERVATION STORAGE FOR WATER SUPPLY PURPOSES. THE CORPS' CHATFIELD ANTECEDENT FLOOD STUDY (2005) SHOWED THAT FLOOD CONTROL STORAGE SPACE BETWEEN ELEVATIONS 5432 AND 5444 MSL COULD BE REALLOCATED WITHOUT COMPROMISING THE FLOOD PROTECTION OFFERED BY CHATFIELD.

TO EVALUATE THE ENVIRONMENTAL, SOCIAL, AND ECONOMIC EFFECTS OF THE PROPOSED REALLOCATION, THE CORPS INITIATED THE FEDERAL FEASIBILITY REPORT AND ENVIRONMENTAL IMPACT STATEMENT (FR/EIS) IN 1999. THE FINAL FR/EIS WAS RELEASED BY THE CORPS IN JULY 2013 AND THE PUBLIC COMMENT PERIOD HAS ENDED. THE FR/EIS RECOMMENDS A REALLOCATION FROM FLOOD CONTROL TO CONSERVATION AND WATER SUPPLY OF 20,600 AF. THE CORPS IS EXPECTED TO ISSUE THE FINAL RECORD OF DECISION IN 2014.

THE CURRENT WATER PROVIDERS INVOLVED IN THE REALLOCATION ARE SHOWN IN TABLE 1 BELOW:

TABLE 1: CHATFIELD REALLOCATION PARTICIPANTS

PARTICIPANTS		STORAGE AMOUNT	% OF TOTAL
COLORADO WATER CONSERVATION BOARD		6,586.0 AF	31.97%
SHARES TRANSFERRED OR PENDING TRANSFER FROM:			
CITY OF AURORA	*3,561.0 AF*		
WESTERN MUTUAL DITCH COMPANY	*1,425.0 AF*		
COLORADO PARKS & WILDLIFE	*1,000.0 AF*		
ROXBOROUGH	*500.0 AF*		
PERRY PARK	*100.0 AF*		
CENTENNIAL WATER AND SANITATION DISTRICT		6,434.9 AF	31.24%
CENTRAL COLORADO WATER CONSERVANCY DISTRICT		2,849.0 AF	13.83%
SOUTH METRO WATER SUPPLY AUTHORITY		1,418.6 AF	6.89%
ENTITIES TO RECEIVE SHARES:			
CENTENNIAL WATER AND SANITATION DISTRICT	*487.2 AF*		
TOWN OF CASTLE ROCK	*487.2 AF*		
ACWWA	*121.6 AF*		
CASTLE PINES NORTH METRO DISTRICT	*64.3 AF*		
COTTONWOOD	*64.3 AF*		
STONEGATE	*64.3 AF*		
PINERY	*64.3 AF*		
ROXBOROUGH	*64.3 AF*		
CASTLE PINES METRO DISTRICT	*1.1 AF*		
TOWN OF CASTLE ROCK		1,013.1 AF	4.92%
CASTLE PINES NORTH METRO DISTRICT		941.5 AF	4.57%
CASTLE PINES METRO DISTRICT		785.6 AF	3.81%
MOUNT CARBON METRO DISTRICT		400.0 AF	1.94%
CENTER OF COLORADO WATER CONSERVANCY DISTRICT		131.3 AF	0.64%
DENVER BOTANIC GARDENS AT CHATFIELD		40.0 AF	0.19%
TOTAL		**20,600** AF	**100.00%**

Background
The District is located between Denver and Castle Rock in the unincorporated community of Castle Pines Village in Douglas County. The primary functions of the District are to provide street repair and maintenance, snow removal, road right-of-way maintenance, water treatment and distribution, sewer collection and storm drainage management services to the property owners of Castle Pines Village. The District's facilities include two water treatment plants, eight potable wells, one irrigation only well, two storage tanks, one potable water pump station, one irrigation/raw water pump station, and over 59 miles of pipeline.

The District's service area is approximately 80% developed from a demand perspective, with a projected average annual demand of 1,634 AF at full build out. Annual produced water demands have averaged approximately 1,056 AF the last five years. The District's entire water supply comes from non-tributary groundwater, which is considered a non-renewable source. The District's Water Conservation Plan was approved by the CWCB in February 2010.

Loan Feasibility Study
Sue Mantz, District Accounting Supervisor, and Paul Dannels, District Manager, prepared the Loan Feasibility Study titled "*CPMD Participation in the Chatfield Reservoir Reallocation Project*," dated April 2014, with support from Gina Burke, Vice President, Jehn Water Consultants, and legal review from Scott Clark, Esq. with Burns Figa & Will. The study was prepared in accordance with CWCB guidelines and includes an alternative analysis, cost estimates, and financial statements. The feasibility study relies on the FR/EIS prepared by the Corps, and the Fish, Wildlife and Recreation Mitigation Plan (FWRMP) prepared by the Relocation Participants in accordance with C.R.S. 37-60-122.2.

Borrower – Castle Pines Metropolitan District
The District was organized by a court order on June 14, 1973, following an election by the property owners in the District. The District serves Castle Pines Village which has approximately 4,500 residents and a total of 1,700 water taps. District funds are divided into its General Fund and Enterprise Fund. General Fund revenues are primarily derived from property taxes and the Enterprise Fund revenues are primarily derived from fees charged from services.

A five-member Board of Directors governs the District and is empowered to levy a property tax on real and personal properties located within its boundaries. Through its water activity enterprise, the Board can authorize the District to incur debt and set water rates as required to cover operating expenses.

Water Rights
The District's water rights portfolio includes Denver Basin groundwater rights and Plum Creek and South Platte surface water rights. Currently, all water supplies come from non-tributary groundwater wells. Storage rights are held by the District in Rueter-Hess Reservoir and Plum Creek Reservoir. In anticipation of the Project, the District, in conjunction with Castle Pines North Metropolitan District, obtained a 1,000 AF conditional storage right in Chatfield in Case No. 04CW308.

CHATFIELD REALLOCATION DESCRIPTION
THE GOAL OF THE REALLOCATION IS TO HELP ENABLE WATER PROVIDERS SUPPLY WATER TO LOCAL USERS IN RESPONSE TO RAPIDLY INCREASING DEMAND. THE STATEWIDE WATER SUPPLY INITIATIVE 2010 REPORT (SWSI 2010) HAS IDENTIFIED THE PROJECTED GAP IN MUNICIPAL & INDUSTRIAL (M&I) AND SELF-SUPPLIED INDUSTRIAL (SSI) USE IN THE METRO BASIN ALONE WILL BE BETWEEN 180,000 AND 280,000 AF PER YEAR BY THE YEAR 2050. THE CHATFIELD REALLOCATION PROJECT IS IDENTIFIED IN SWSI 2010 AS AN IDENTIFIED PROJECT AND PROCESS (IPP) FOR THE METRO AND

South Platte Basins. With the completion of all Metro Basin IPPs, the M&I and SSI gap is expected to be reduced by 140,000 AF per year. The Reallocation is expected to provide an average year yield of 8,539 AF of new water supply.

Several concepts were initially developed and screened using the Corp's planning process. For consistent comparison purposes, each alternative was designed to provide the same average year yield of a full Reallocation. During the Corps' screening process, many alternatives were eliminated from further evaluation, while the four alternatives below were identified for final consideration.

Alternative 1 – No Chatfield Reallocation, New Reservoir, New Gravel Pit Storage: Without changes to Chatfield's operations, water providers above Chatfield would seek to construct Penley Reservoir, and water providers below Chatfield would seek to develop gravel pit storage to make up the water yield a reallocated Chatfield would provide. The cost of this alternative is $283.4 million.

Alternative 2 – No Chatfield Reallocation, Non-Tributary Groundwater Wells, New Gravel Pit Storage: The least-cost alternative to reallocating Chatfield, would be for water providers above Chatfield to rely on more non-tributary groundwater wells and water providers below Chatfield develop gravel pit storage. Non-tributary groundwater is considered a non-renewable water supply and thus not a permanent water supply solution. The cost of this alternative is $186.1 million.

Alternative 3 – Minimum Chatfield Reallocation (7,700 AF): Reallocation of storage less than 7,700 AF was considered by the water providers to provide too little water supply benefits for the cost involved. This alternative would provide an average year yield of less than 8,539 AF, with the shortfall be made up by developing additional water sources of non-tributary groundwater and gravel pits. The cost of this alternative is $180.2 million.

Selected Alternative 4 – Maximum Chatfield Reallocation (20,600 AF): The Selected Alternative recommended in the Final FR/EIS will provide 20,600 AF of storage in Chatfield between the elevations 5432 and 5444 msl for M&I water supply and other purposes including agriculture, environmental restoration, and recreation and fishery habitat protection and enhancement. The storage will be provided through a reallocation from the exclusive flood control pool to a joint conservation/flood control pool. To mitigate for the inundation of recreation and environmental resources, this alternative includes relocation and modifications of existing recreation facilities and compensatory environmental mitigation features with monitoring and adaptive management. Implementation of the pool rise and use of the reallocated storage space will occur in increments as the recreation modifications and portions of the environmental mitigation features are completed.

The FR/EIS recommends this alternative because it maximizes the National Economic Development (NED) cost, is the least cost alternative, and the locally-preferred plan. This alternative meets all federal NED goals, Corps planning goals, and Environmental Operating Principals. Neither the primary flood risk management purpose nor other authorized purpose of Chatfield will be significantly affected by the reallocation.

Including reoccurring cost such as operation and maintenance, the cost of this alternative in FY 2013 dollars is estimated at $178.7 million. Costs to be paid through

THIS LOAN ARE THE UPFRONT COST OF STORAGE, ENGINEERING, AND CONSTRUCTION RELATED TO THE FEDERAL AND STATE REQUIRED MITIGATION. THESE COST TOTAL $145.5 MILLION ($7,063/ACRE-FOOT). THE REALLOCATION PARTICIPANTS ARE RESPONSIBLE FOR A PRO-RATA SHARE BASED ON THEIR STORAGE ALLOTMENT. SEE TABLE 2 FOR A SUMMARY OF THE REALLOCATION COST.

TABLE 2: REALLOCATION COST SUMMARY

Task	Cost
Cost of Storage	$16,300,000
Federal Required Mitigation	$107,100,000
State Required Mitigation	$8,900,000
Subtotal	$132,000,000
Contingency (10%)	$13,200,000
Total	**$145,500,000**

Borrower's Participation: The District is participating in the Reallocation with a goal of increasing the permanence and reliability of its water supply. Currently, the District relies solely on non-tributary groundwater, a non-renewable water source. There is a general concern in the south metro area about the life expectancy of these aquifers. The Chatfield water will be utilized by the District through an exchange on East Plum Creek authorized in water court Case No. 04CW308 or by pipeline. No additional water right acquisitions will be needed to use the Chatfield storage space but additional infrastructure will be needed to divert out of East Plum Creek and into the District's system. The improvements consist of alluvial wells, surface points of diversion, and storage as decreed in Case Nos. 04CW292, 04CW293, and 04CW308 as well as pipelines and pump stations. The District plans to construct these improvements in the future and they are not a part of this loan request.

Of the 20,600 AF of storage to be reallocated, the District will directly receive 785.6 AF and, through the South Metro Water Supply Authority, indirectly receive 1.1 AF, for a total storage space of 786.7 AF. This represents 3.82% of the total reallocation. Therefore the District's Project cost is approximately $5,560,000 ($145,500,000 x 3.82%). The Project is expected to develop an average yield of 325 AF per year for the District from junior water rights. Successful completion of the Project would result in the District securing renewable water rights that on average would supply 30% of its average annual water demand and 20% of its projected maximum annual water demand.

SCHEDULE: THE CORPS' RECORD OF DECISION (ROD) IS EXPECTED IN 2014. UPON THE SIGNED ROD, THE CORPS WILL COMPLETE NEGOTIATIONS WITH DNR AND ENTER INTO A WATER STORAGE AGREEMENT. DNR WILL ENTER INTO THIRD PARTY SUB-AGREEMENTS WITH THE REALLOCATION PARTICIPANTS. PROJECT ACTIVITIES WILL BEGIN WHEN ALL NECESSARY AGREEMENTS HAVE BEEN EXECUTED (ESTIMATED FALL 2014). REALLOCATION PARTICIPANTS EXPECT TO PAY IN FULL THE COST OF STORAGE AS WELL AS BEGIN FINAL ENGINEERING UPON PROJECT START. THE RECREATIONAL FACILITY MODIFICATIONS AND ON-SITE MITIGATIONS ARE EXPECTED TO TAKE 5 YEARS. OFF-SITE MITIGATIONS AND MITIGATION MONITORING ARE EXPECTED TO LAST 13 YEARS OR MORE.

Financial Analysis

The District qualifies for a high-income municipal interest rate of 3.0% for a 30-year term. The District will use its cash reserves to fund its required 10% match. Table 3 shows a summary of the financial aspects of the Project.

TABLE 3: PROJECT FINANCIAL SUMMARY

Total Project Cost (3.82% of Reallocation Cost)	$5,560,000
Borrower Match	$560,000
Project Loan	$5,000,000
Project Loan (Including 1% Service Fee)	$5,050,000
Project Annual Loan Payment	$257,647
Project Annual Loan Obligation (incl. 10% debt reserve)	$283,412
Monthly Cost of Loan per Tap (incl. 10% debt reserve)	$13.89
Project Cost per Acre-Foot of Storage (786.7 AF)	$7,063/AF

Contracting: In anticipation of a multi-year and multi-phased Project, CWCB may enter into multiple contracts, under the approved loan limit. This will put the District into repayment on completed portions of the Project and allow CWCB to best utilize its loan funds. CWCB will enter into all contracts no sooner than September 1, 2014. In recognition of the long time of performance for Contracts 2 and 3, interest accrued prior to Project completion shall be paid annually unless otherwise approved by CWCB.

CWCB will disburse loan funds at a rate of no greater than 90% of Project Cost, up to the approved loan limit. The breakdown of the contract components are listed in Table 4.

TABLE 4: CONTRACTING SUMMARY

Contract	Time of Performance	Project Cost	Estimated Contract Amount (Not Incl. Service Fee)	Project Activity
1	1 Year	$623,000	$560,000	Cost of storage
2	5 Years	$3,569,000	$3,210,000	Engineering, recreation facilities construction, on-site mitigation, off-site mitigation, mitigation monitoring
3	13 Years	$1,368,000	$1,230,000	Off-site mitigation, mitigation monitoring

Creditworthiness: The District has $5,252,321 in existing debt. The water activity enterprise portion of that debt is $2,061,321 and consists of a 2003 Revenue Bond and two Drinking Water Revolving Fund loans (DWRF) through the Colorado Water Resources and Power Development Authority (CWRPDA).

TABLE 5: EXISTING DEBT

Lender	Original Balance	Current Balance	Annual Payment	Maturity Date	Collateral
2003 Bond	$2,005,000	$390,000	$206,865	2015	Enterprise revenue
DWRF (May 2006)	$2,000,000	$1,482,183	$145,099	2026	Enterprise revenue
DWRF (Nov 2006)	$250,000	$189,138	$17,983	2027	Enterprise revenue
2008 Bond	$9,545,000	$3,191,000	$1593,250	2015	Tax revenue
Total		$5,252,321	$369,947		

The 2003 Bond is scheduled to be retired prior to the first loan repayment for this Project is due. The District is applying for a new $1.8 million loan with the CWRPDA to fund a water transfer line

(20-years @ 2% interest, $110,000 annual payment). This water transfer line is not related to the previously described future improvements associated with the Reallocation. The "Future w/ Project" financial ratios shown in Table 6 do not include the 2003 Bond debt but does account for the pending CWRPDA debt in its future projections. The general fund debt (2008 Bond) is not included in Table 6 as the financial review looked at the ability of the water activity enterprise to repay the loan.

TABLE 6: ENTERPRISE FINANCIAL RATIOS

Financial Ratio	Past 3 Years	Future w/ Project
Operating Ratio (revenues/expenses) weak: <100% - average: 100% - 120% - strong: >120%	129% (Strong) $3.6M/$2.8M	120% (Average) $3.6M/$3.0M
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% - average: 100% - 120% - strong: >120%	316% (Strong) (3.6M$-$2.43M) $0.37M	205% (Strong) ($3.6M-$2.43M) $0.57M
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	196% (Strong) $5.5M/$2.8M	167% (Strong) $5M/$3M
Debt per Tap (Based on 1,700 Taps) weak: >$5,000 - average: $2,500 - $5,000 - strong: <$2,500	$1,200 (Strong) $2M/1.7K	$4,940 (Average) $8.4M/1.7K
Average Monthly Water Bill weak: >$60 - average: $30 - $60 - strong: <$30	$113 (Weak)	$113 (Weak)

Collateral - Security for this loan will be a pledge of the District's water activity enterprise revenues backed by a rate covenant as evidenced by annual financial reporting. Parity status will be required with the existing CWRPDA loans. This security is in compliance with CWCB Loan Policy #5 (Collateral).

cc: Paul Dannels, District Manager, Castle Pines Metro District
Susan Schneider/Jennifer Mele, Colorado Attorney General's Office

Attachment: Water Project Loan Program – Project Data Sheet

CWCB Water Project Loan Program
Project Data Sheet

C150403

Borrower: Castle Pines Metropolitan District

County: Douglas

Project Name: Chatfield Reallocation Project

Project Type: Reservoir Storage

Drainage Basin: South Platte

Water Source: South Platte River
Plum Creek

Total Project Cost: $5,550,000

Funding Source: Severance Tax Perpetual Base Fund

Type of Borrower: High-income Municipal

Average Annual Delivery: 1,056 AF

Added Water Supply Storage: 786.7 AF

CWCB Loan: $5,050,000 (with 1% service fee)

Interest Rate: 3.0% **Term:** 30-years

The Castle Pines Metropolitan District provides water and wastewater services to the residents and businesses of Castle Pines Village in Douglas County. The District is participating in the Chatfield Reallocation Project in order to increase the permanence and reliability of its water supply. Successful completion of the Project would result in the District securing renewable water rights that on average would supply 32% of its average annual water demand. Of the 20,600 acre-feet proposed to be reallocated, the District would receive 786.7 acre-feet of storage, or 3.82% of the total reallocation. The District will use Chatfield storage through an exchange on east Plum Creek as authorized in water court Case No 04CW308.

The US Army Corps of Engineers issued the Project's Feasibility Report and Environmental Impact Statement (FR/EIS) in July 2013 and a Record of Decision is expected in 2014. The Selected Alternative recommended in the Final FR/EIS will provide 20,600 acre-feet of storage in Chatfield between the elevations 5432 and 5444 msl for M&I water supply and other purposes including agriculture, environmental restoration, and recreation and fishery habitat protection and enhancement. Project participants completed the Project's Fish, Wildlife and Recreation Mitigation Plan, in accordance with C.R.S. 37-60-122.2 in January 2014.