

**Town of Castle Rock
Synthetic Turf Project
95% Completion Report
April 2009**

Grant Recipient: Town of Castle Rock
 175 Kellogg Court
 Castle Rock, Colorado 80109

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As described in the Application for Water Efficiency Grant, the Town of Castle Rock (Castle Rock), in partnership with the Douglas County School District (DCSD), installed a synthetic turf field at the new Elementary School #45 instead of an irrigated natural turf field. This is assisting Castle Rock in meeting its goals for significantly reducing current and future per-capita water demands.

This 95% Completion Report document is in partial fulfillment of the Colorado Water Conservation Board (CWCB) Water Efficiency Grant Program requirements. A summary of the project status, success of meeting identified goals and objectives, preliminary findings and obstacles, and project modifications are discussed below.

Castle Rock's public outreach materials are geared toward highlighting the water conservation benefits of the project, and have included credits to CWCB for CWCB's role in helping support the Town's water-conservation efforts. This in turn helps promote community awareness of the need for and opportunities for water conservation, helping Castle Rock promote a water-wise culture in the community. In turn, projects such as this have the potential to have water savings impacts beyond the boundaries of the project itself.

Project Status

Castle Rock has completed the following tasks as of the end of 2008:

- Completion of final design documents and construction specifications (Task 1);
- Contractor selection and Project Management through the construction phase (Task 2);
- All construction activities, including mobilization, grading, site preparation and base installation, turf installation, and demobilization (Task 3);
- Initial public education and awareness activities (Task 4); and,

- Completion of the 50% report (submitted to CWCB on October 31, 2008).

Administrative tasks (Task 4 – Public Education; and Task 5 – Status Reports) will be completed based on the updated schedule in Table 1. The bullets below provide more information on each in-progress task and any necessary schedule revisions.

Table 1: Project Schedule			
Task	Sub-Task	Anticipated Completion Disclosed in the Application for Water Efficiency Grant	Status and Revised Anticipated Completion
Complete Synthetic Turf Design	N/A	End of November 2007	Completed
Bid Process and Contractor (s) Selection	Complete Bidding Process	Middle of January 2008	Completed
Construction	Contractor Mobilization	Beginning of February 2008	Completed
	Completion of Grading and Utilities	End of April 2008	Completed
50% Completion Report to CWCB	n/a	End of May 2008	Completed (submitted to CWCB in Oct 2008)
Construction	Completion of the synthetic turf field installation	End of June 2008	Completed
95% Completion Report to CWCB	n/a	End of June 2008	Submitted April 2009 (this report)
Construction	Project Closeout	Beginning of August 2008	Completed in September 2008
Public Education	Information on Project Distributed to the Public	August 2008	October 2008 / Ongoing
Final Completion Report is submitted to CWCB	n/a	August 2008	End of September 2009

- Task 4 includes distributing information to the public regarding the synthetic turf field and water savings benefits. This information will be distributed using various methods (posted signs, water conservation website, local TV shows, local newspaper, and water wise community classes). The initial education effort was conducted over September and October 2008. Public education and awareness items are ongoing; examples of Castle Rock's efforts to date are included in Attachment 2 to this report.
- Task 5 includes the development and submittal of 50%, 95%, and final completion reports per CWCB Water Efficiency Grant Requirements. Following this 95% completion report, Castle Rock will submit a Final Completion Report to CWCB at the end of September 2009 documenting estimated water savings after approximately one year of operation.

Goals and Objectives

Castle Rock has met their goals and objectives in installing the synthetic turf field prior to the 2008 school season and will spend the next year addressing additional project goals and objectives including:

- Reducing average water consumption toward Castle Rock's goal of an 18 percent reduction in per-capita water use;
- Reducing peak water consumption; and,
- Preserving/enhancing Castle Rock's landscape architecture.

The final completion report will provide additional information on how this project is helping Castle Rock meet these goals.

Preliminary Findings and Obstacles

No major obstacles were encountered in completing the design, contractor selection, or construction of this project. Installation has been completed and public education efforts have been conducted.

Project Modifications

Two project modifications have been necessary: (1) changes to the schedule; and, (2) changes to the budget. Both were reported in the 50% Completion Report submitted to CWCB in October 2008. Changes to the schedule reflect the amount of time necessary to implement construction, and required only slight modifications (by a maximum of two months) the original schedule. Budget modifications reflect the difference in CWCB grant amount originally requested (\$86,013) versus the amount actually granted (\$20,000). Additionally, budget modifications include a shift in Castle Rock Water Conservation Specialist and Utilities Program Analyst hours from design to education. Design of the project was anticipated to require additional input from these two staff members; however, their input was not necessary. Therefore, these staff hours were shifted to the education task. The budget spreadsheet submitted with this report (Attachment 1) reflects these changes.

Summary

Castle Rock has successfully completed design, contractor selection, and installation of the synthetic turf field. The project is now fully operational and has begun to save water by eliminating the need to irrigate a significant area of what would otherwise be high-water demand natural turf grass. Public education and outreach efforts (Attachment 2) have utilized multiple communication media, helping to instill a "conservation culture" in Castle Rock.

Town of Castle Rock - 95% Report
Estimated Level of Effort and Cost
Elementary School #45 Artificial Turf Installation

Estimate of Costs																				
Task	Description	Design Consultants		Construction Contractor(s)	DCSD Staff Hours and Costs		Castle Rock Staff Hours and Costs							Funding Sources						
		Design Concepts and Landscape Architects	JVA Civil Engineers	Labor and Materials	Project Manager Hours	Project Manager Labor Costs	Water Conservation Specialist	Utilities Program Analyst	Park Super-intendent	Community Relations	Parks Maintenance Super-intendent	Total Staff Hours	Staff Labor Costs	CWCB Grant	Recycled Tire Grant	DCSD Match (Cash Funds)	DCSD Match (In-kind Services)	Castle Rock Match (Cash Funds)	Castle Rock Match (In-kind Services)	Total
	Rate/hour	n/a	n/a	n/a	\$36.00	n/a	\$33.65	\$40.26	\$33.65	\$32.45	\$42.67	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1.0	Design	\$7,881	\$15,386	\$0	60	\$2,160	20	20	20	0	0	60	\$2,151	\$0	\$0	\$11,633	\$2,160	\$11,634	\$2,151	\$27,578
2.0	Contractor Selection and Project Management	\$0	\$0	\$0	40	\$1,440	20	20	450	0	60	550	\$19,181	\$0	\$0	\$0	\$1,440	\$0	\$19,181	\$20,621
3.0	Construction	\$0	\$0	\$344,050	0	\$0	0	0	0	0	0	0	\$0	\$20,000	\$37,000	\$129,019	\$0	\$158,031	\$0	\$344,050
4.0	Public Education	\$0	\$0	\$0	0	\$0	50	50	10	80	0	190	\$6,628	\$0	\$0	\$0	\$0	\$0	\$6,628	\$6,628
Total		\$7,881	\$15,386	\$344,050	100	\$3,600	90	90	480	80	60	800	\$27,960	\$20,000	\$37,000	\$140,652	\$3,600	\$169,665	\$27,960	\$398,877

Expenditures as of April 2009																				
Task	Description	Design Consultants		Construction Contractor(s)	DCSD Staff Hours and Costs		Castle Rock Staff Hours and Costs							Funding Sources						
		Design Concepts and Landscape Architects	JVA Civil Engineers	Labor and Materials	Project Manager Hours	Project Manager Labor Costs	Water Conservation Specialist	Utilities Program Analyst	Park Super-intendent	Community Relations	Parks Maintenance Super-intendent	Total Staff Hours	Staff Labor Costs	CWCB Grant	Recycled Tire Grant	DCSD Match (Cash Funds)	DCSD Match (In-kind Services)	Castle Rock Match (Cash Funds)	Castle Rock Match (In-kind Services)	Total
	Rate/hour	n/a	n/a	n/a	\$36.00	n/a	\$33.65	\$40.26	\$33.65	\$32.45	\$42.67	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1.0	Design	\$7,881	\$15,386	\$0	60	\$2,160	0	0	20	0	0	20	\$673	\$0	\$0	\$11,634	\$2,160	\$11,634	\$673	\$26,100
2.0	Contractor Selection and Project Management	\$0	\$0	\$0	40	\$1,440	0	0	400	0	50	450	\$15,594	\$0	\$0	\$0	\$1,440	\$0	\$15,594	\$17,034
3.0	Construction	\$0	\$0	\$344,050	0	\$0	0	0	0	0	0	0	\$0	(\$18,000 pending)	\$0	\$129,019	\$0	\$158,031	\$0	\$287,050
4.0	Public Education	\$0	\$0	\$0	0	\$0	30	30	10	65	0	135	\$4,663	\$0	\$0	\$0	\$0	\$0	\$4,663	\$4,663
Total		\$7,881	\$15,386	\$344,050	100	\$3,600	30	30	430	65	50	605	\$20,930	\$0	\$0	\$140,653	\$3,600	\$169,665	\$20,930	\$334,847

Details of Construction Contractor(s) Costs						
Bid Item	Description	Detail	Unit	Quantity	Unit cost	Total Cost
1	Synthetic Field Nailer	2x6 treated boards to form the edge of the field to contain gravel fill material and provide	LF	955	\$3	\$2,865
2	Synthetic Field Base Material	One 4" layer of 3/4" washed gravel under 2" of compacted fine gravel base (substructure)	SF	55,670	\$1	\$55,670
3	Synthetic Field Subsurface Drainage	French drain system designed to move water from under the field surface	LS	1	\$35,000	\$35,000
4	Synthetic turf	Synthetic Turf with crushed rubber infill	SF	55,670	\$5	\$250,515
Total						\$344,050

ATTACHMENT 2:

EXAMPLES OF CASTLE ROCK PUBLIC EDUCATION AND OUTREACH MATERIALS FOR THIS PROJECT

The following pages include excerpts from Castle Rock's recent efforts to bring public awareness to the water-savings benefits of this project and to encourage a culture of water conservation in Castle Rock. Included are:

- Public announcements (press release, flyers) for the November 1, 2008 grand opening celebration for the new "Bison Park" and athletic fields, highlighting the water savings associated with the project and CWCB's role
- Town of Castle Rock website home page showed the project and its water conservation benefits
- Town of Castle Rock's Parks website (www.crgov.com/parks) highlights the new Bison Park and prominently displays its water conservation features, driven primarily by this project



In addition, Castle Rock conservation staff have been interviewed for local access television spots. In October 2008, these efforts included a taped piece for the "Castle Rock View" where staff highlighted the water savings of artificial turf and promoted the Town's partnership with CWCB. A DVD of the segment is also included in this attachment.

October 2008 Press Release

Distribution included:

- All homeowner's associations that have signed up to receive Castle Rock's electronic newsletters and press releases
- Your Hub
- Douglas County News Press
- Castle Rock News Press
- Castle Rock Radio
- Douglas County Living Magazine
- www.Coloradotown.com
- www.Americantowns.com

Entertainment, education on tap for Bison Park opening

Families can get entertained and educated at the grand opening of Bison Park in The Meadows area of Castle Rock on Nov. 1.

Entertainment will come in the form of inflatable games, including a bouncy house and obstacle course, and a tennis tournament and football games to watch.

The educational component includes nature and wildlife-related displays as well as a tennis clinic for children ages 8 to 12.

In addition, there will be free food (while supplies last), giveaways for the first 300 attendees and a chance to suggest names for the two bison sculptures at the park.

"I think it's important for people to attend because it is a major investment in our area of Town that provides the community a great amenity," said Town Councilman Ryan Reilly, who represents part of The Meadows. "Additionally, by partnering with the school district, we were able to save money, which benefits all the citizens."

Bison Park's name relates to the adjacent Clear Sky Elementary School, whose mascot is the bison. The Town and the Douglas County Schools worked together to plan for two synthetic turf athletic fields at the 20-acre park/school site and are sharing parking.

Grants from the Colorado Water Conservation Board and the Colorado Recycled Waste Tire Grant Program made funding the fields a reality. The fields will result in the savings of 2.5 million gallons of water per year over irrigated fields.

"Kids can play on those (synthetic fields) later into the winter and earlier in the spring," Councilman Paul Donahue, who represents the remainder of The Meadows, said of the fields. "In terms of conservation, those are just a great idea."

In addition to the fields, park amenities include four lighted tennis courts, a climbing area, playgrounds, picnic pavilions, walking paths and an outdoor classroom with a seasons theme. The park, which has wheelchair-accessible elements throughout, also will feature an interactive sundial.

The Meadows Metropolitan District No. 1 contributed money toward the pavilion at the park, 1390 Clear Sky Way.

The grand opening will run from 11 a.m. to 1 p.m., with the official dedication occurring at 11:15 a.m. Registration for the youth tennis clinic is required by Oct. 30 by e-mailing ameredith@CRgov.com.

The grand opening will be canceled in the event of inclement weather. Check CRgov.com or call 303-814-7444 for updates.

October 2008 Public Outreach Materials

Bison Park Grand Opening



11 a.m.-1 p.m. Saturday, Nov. 1
1390 Clear Sky Way, The Meadows

Free food (while supplies last)

Giveaways for the first 300 attendees

Inflatable games, including a bouncy house
and obstacle course

Nature and wildlife educational displays

Watch a high school doubles tennis tournament

Free youth tennis clinic (ages 8-12; register
by Oct. 30, e-mail ameredith@CRgov.com)

Douglas County Dolphins 8- and 9-year-old
football games

Name nominations for two bison sculptures
at the park

*Town Council and Parks and Recreation
Commission members will dedicate
the park at 11:15 a.m.*



A new 10-acre park, Bison Park is located in The Meadows behind Clear Sky Elementary School, whose mascot is the bison. The \$2.6 million park includes four lighted tennis courts, a climbing area, playgrounds, picnic pavilions, walking paths and synthetic turf athletic fields made possible by grants from the Colorado Water Conservation Board and the Colorado Recycled Waste Tire Grant Program.

Water conservation is one theme in the joint-use school/park site. The school originally planned traditional grass fields, but by switching to synthetic turf, 2.5 million gallons of water will be saved each year. There also is an outdoor classroom and a theme of seasons to tie in with the adjacent school – including an interactive sundial and landscaping that will bloom during different times of the year. The park is surrounded by scrub oak, has phenomenal views and features wheelchair-accessible elements throughout, including accessible swings. For more information on this and all of the Town's parks, visit www.CRgov.com/parks.

The grand opening will be canceled in the event of inclement weather. Check CRgov.com or call 303-814-7444 for updates.

Meadows Metro District No. 1
Arrow J Landscapes & Design Inc.



Please join in celebrating
the grand opening of

Bison Park

11 a.m.-1 p.m. Saturday, Nov. 1
1390 Clear Sky Way

Park dedication at 11:15 a.m.



A new 10-acre park, Bison Park is in The Meadows behind Clear Sky Elementary, whose mascot is the bison. The \$2.6 million park includes four lighted tennis courts, a climbing area, playgrounds, picnic pavilions, walking paths and synthetic turf athletic fields.

Water conservation is one theme in the 20-acre joint-use school/park site, which has only 3 acres of irrigated turf. In addition, the synthetic turf fields will result in the savings of 2.5 million gallons of water per year over irrigated fields. There's an outdoor classroom with a seasons theme and an interactive sundial. The park has wheelchair accessible elements throughout.

Made possible by



Douglas County School District
Learn today. Lead tomorrow.

Colorado Water Conservation Board
Colorado Recycled Waste Tire Grant
Meadows Metro District No. 1
Arrow J. Landscapes & Design Inc.

Town of Castle Rock
Parks and Recreation Department
2301 N. Woodlands Blvd.
Castle Rock, CO 80104

First-Class Mail
AUTO
U.S. Postage Paid
Castle Rock, CO
Permit No. 26

Grand Opening

Free food (while supplies last)

Giveaways for the first 300 attendees

Inflatable games, including a bouncy house and obstacle course

Nature and wildlife educational displays

Watch a high school doubles tennis tournament

Free youth tennis clinic (ages 8-12; register by Oct. 30 by e-mailing
ameredith@CRgov.com)

Douglas County Dolphins 8- and 9-year-old football games

Name nominations for two bison sculptures at the park

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Town of Castle Rock Web Site

Screen shot copied from the Town of Castle Rock web site homepage (www.crgov.com):



Synthetic turf fields are being installed at Bison Park in The Meadows, adjacent to Clear Sky Elementary. The turf fields were made possible by grants from the Colorado Water Conservation Board and the Colorado Waste Tire Grant Program.

Town of Castle Rock Parks Website:

TOWN OF CASTLE ROCK
colorado

HomeTown ServicesAsk CRgov About...EmploymentContact UsAbout the Town

Parks

The Town of Castle Rock has 17 developed parks, for more than 250 acres of neighborhood, community and regional parkland parks, including the newly opened Rhyolite Regional Park. These parks provide outdoor spaces that encourage and facilitate community recreation and celebration.

Quick Links

[Picnic pavilion and field reservations](#)
[Trails and Open Space](#)
[Photo tour](#)

Please see a printable Parks amenities, location and description overview sheet at the bottom of the page.



Butterfield Crossing Park in the Meadows

Baldwin Park - 2417 Miller Boulevard

Small park with playground equipment and bike path.

[Bison Park- 1390 Clear Sky Way](#)

The joint-use school/park site will feature two synthetic turf fields, resulting in the savings of 2.5 million gallons of water per year. The 20-acre site will have only 3 acres of irrigated turf, which will be hybrid turf that uses less water. The park will be unique because it will feature four tennis courts – the first new tennis courts the Town has added to its parks in about 20 years. There also will be an outdoor classroom and a theme of life cycles and seasons to tie in with the adjacent school – including an interactive sundial and landscaping that will bloom during different times of the year. The park is surrounded by scrub oak, has phenomenal views and will feature wheelchair-accessible elements throughout, including accessible swings. The park also features a climbing area with life size Bison play structures, sand play area as well as unique play equipment. The park will have 1 large picnic pavilion available for rental and 2 drop-in use pavilions. To rent the picnic pavilion, call 720-733-2260 or [click here](#) for additional information.