

Component 2: Native Seed Supply

2011 Annual Report

Prepared for:

Trustee Council for Natural Resources at Rocky Flats

Submitted to:

**Colorado Department of Public Health and Environment
Under PO FEA HAZ 104960**

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This native seed supply project is the second of two components in Jefferson County Nature Association's (JCNA) seven year program to enhance restoration of the Rocky Flats Site (Site), including both the DOE Legacy area and the Rocky Flats National Wildlife Refuge (Refuge). Originally unplowed native grassland, the Site has been subject to former nuclear operations and other activities that have modified or destroyed much of its native vegetation over the past decades. Noxious weeds have invaded many disturbed areas on and near the Site and their successful control requires considerable effort. This native seed supply project will provide locally adapted seed for use on previously disturbed areas at the Site. The first component, coordination of weed control, will increase awareness and effectiveness in weed control on and near the Site. Both project components will enhance the quality and native diversity of plant communities and habitat.

In compliance with JCNA's final proposal to the Trustee Council for Natural Resources at Rocky Flats, this 2011 annual report on the native seed supply project does the following: A. Details the picking program; and B. Lists recommendations for future efforts. The contract for this program was awarded on September 21st, 2009, shortly before seed picks were conducted in October and November. The 2011 seed picking and volunteer outreach efforts were solidly grounded in the 2009 and 2010 efforts.

A. PICKING PROGRAM DETAIL

1. Picking Information.

The three seed picks scheduled in 2011 were to be at three different locations: the Refuge in September, the Jewel Mountain Open Space in October, and the Ranson-Edwards Open Space in November (Map 1). Permission to pick at the three sites used in 2011 was graciously granted by the group managing the location. Permission for the picking activities on Rocky Flats National Wildlife Refuge was granted by U.S. Fish and Wildlife Service. Permission to pick on Jewel Mountain Open Space was granted by the City of Boulder. Permission to pick on Ranson-Edwards Open Space was granted by the Jefferson County.

Each scheduled pick was preceded by one or more site evaluations and Crew Leader orientations and each was done with varying numbers of pickers. The site evaluations included driving and walking through each potential picking site to search for areas where noxious weeds were at a minimum and where the diversity of native species was greatest. Consideration was also given to the accessibility of each site for seed pickers, the ease of parking near the site, and the presence of a suitable spot for lunch. Crew Leader orientations were typically held the week prior to each scheduled pick to re-familiarize Crew Leaders with the species present at the chosen site and to get a final reading on which species had seed that was mature enough and abundant enough to be a key component in the upcoming pick. At all three sites, a Porta-Pottie was placed near the gathering and eating location. Porta-Potties were paid for by Xcel Energy, United Power, and Denver Water. They were typically put in place the afternoon prior to a pick and picked up soon after the pick ended.

On the day of each pick, Crew Leaders arrived about 15 minutes early to get organized before the volunteers appeared. They helped park cars, welcome volunteers, and collect the waivers that all participants (or, if they were under 18, their parents) were required to sign to release JCNA from any liability for injury or other mishap. All of the volunteers who provided email addresses on their waivers will be added to our email list to be notified of future picks. Typically about 10 minutes past the advertised gathering time, the group was welcomed, provided guidance on conduct and special opportunities at the site, and given instruction on what seeds to pick and how to pick them as well as what species to avoid. At the end of each pick, screening boxes were set up at the site, and volunteers rubbed the contents of their picking bags through the screen to break up the chaff and at least partially detach seeds from chaff. Volunteers then helped themselves to a lunch of sandwich materials, chips, fruit, cookies and water that was laid out and ready. It proved to be a very successful social time where all could converse and bond. Toward the end of the lunch period, an overview of the history of the Rocky Flats area, the reclamation process at the former plant site, and the uses to which the seeds just picked will be put was presented. Details on each of the picks follow.

Rocky Flats National Wildlife Refuge Pick

An early fall pick was done in the north western portion of the Refuge with the permission of US Fish and Wildlife Service (USFWS), which manages the Refuge. The pick was scheduled on September 24th, 2011, between 8:30 am and 12:30 pm and focused mainly on the seed of grasses. Rains late in the growing season resulted in exceptional vegetative growth and seed production for these species this year. Some individual plants of taller species like big bluestem were 5 feet tall.

The Refuge site was explored to look for good picking sites on September 7th. The Crew Leader orientation and final site evaluation occurred at 10:00 am on September 17th.

Crew Leaders for the September 24th pick met at the west entrance gate to the Refuge at 8:00 am to place plants in bottles and label them for reference. Volunteers for the pick met at 8:30 am. All volunteers were led onto the Refuge as a group so the gate could be relocked behind them.

The pick was attended by 29 people, including 22 volunteer pickers, including 3 children. Of the volunteers, nine heard about the opportunity from a friend or relative, four responded to an email, and most of the other volunteers responded to our advertising in the newspaper (4), on the Girl Scout website (2), in the Colorado Native Plant Society (CONPS) Newsletter (1), or on a poster (1). One volunteer gave no indication of how they learned of our event.

Following their orientation, volunteers spread out across the large field to the south and east of the access road that heads toward Rock Creek from the main west entrance road and picked diligently for 3 hours. We picked 14 pounds of mixed grass seed, which is certainly a one day record. At least half the seed was big bluestem, which was easy to pick even though some of the plants were too green. We picked a good bit of mountain muhly, little bluestem, and side oats and blue grama. We also got a little of 3-awn and



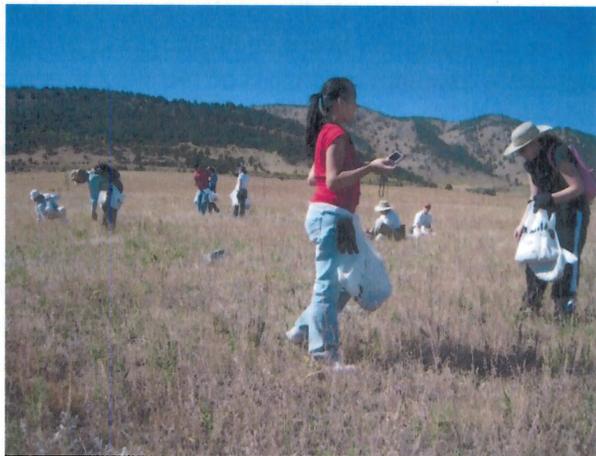
some dropseed. Forbs with ripe seed were rare but we did pick a bit of gumweed and some native milkweed.

Following lunch and the discussion of Rocky Flats history and the goals of the seed picking program, about half the group elected to drive a bit further north on the road that loops through the Lindsey Ranch to explore the ecology and take photographs. We stopped northeast of the Ranch and overlooking the Rock Creek Valley for a discussion of the ecology illustrated in the valley--the thinning Rocky Flats alluvium toward the east, how shrubs mark the boundary between the alluvium and the more impermeable layer beneath, and how the water draining down the slope forms *Juncus* and cattail wetlands. While a large herd of elk had been seen during the field trips to select and explore the site, the pickers were not lucky enough to see them. We also stopped to briefly explore the Lindsey Ranch before returning to the west gate.

Jewel Mountain Open Space Pick

The October pick was at the City of Boulder Jewel Mountain Open Space property on the northeast corner of SH 72 and Plainview Road. The pick occurred on October 22nd between 8:30 am and 12:30 pm. There were no specific target species for this pick. Rather, all native forb and grass species having ripe seed were targeted.

The Jewel Mountain site was visited by several Crew Leaders on October 21st to see what species might be ready for picking and which portions of the site would be best for picking. Before volunteers arrived on the day of the pick, Crew Leaders again set out labeled plants in bottles for reference. Volunteers met at the west gate to Jewel Mountain at 8:30 am. In addition to the standard orientation presentation, Dr. Dave Buckner provided a discussion of the history of the Rocky Flats alluvium and the unique plant community it supports. The pick was attended by 38 people, including 32 volunteers. Of the volunteers, six were members of the American



Nuclear Society at Colorado School of Mines (who saw a flyer), five were participants in Groundwork Denver whose labor was donated by Rocky Mountain Arsenal NWR, four learned of the opportunity from a friend or relative, three were Scouts and six learned of the opportunity through DBG (Denver Botanical Garden?), the Volunteer Outdoor Colorado website, the newspaper, work, a flyer, or COGCC (Colorado Oil and Gas Conservation Commission). Twenty-five provided no indication of how they heard about our program.

The volunteers progressed eastward across the Jewel Mountain site, largely remaining south of an east-west irrigation ditch. The site contained some rich spots where all major grasses and a few forbs were present. Despite the strong wind, which caused them to stop picking a bit early, this picking group obtained 18 pounds of native grass seed; and 9 pounds of forb seed, for a total of 27 pounds of screened seed (and attached materials) for our best pick ever. This success was due to the excellent seed crop this year as well as to the diligence of the pickers.

The primary grass species picked were big bluestem, little bluestem, blue grama and mountain muhly in that order. Several other grasses were picked, including side oats grama, Indiangrass, and two species of dropseed. The primary forbs picked were golden aster, blazing star, two sages, and wild rose (hips).

Lunch at this site was moved north of the pick site to a spot on the west side of Plainview Road that was in the creek valley that provided shade and objects to sit on. The rocks that had been at the picking site last year and served as lunchtime seats had been moved to be used in an aquatic improvement project on South Boulder Creek this fall.

Ranson-Edwards Open Space Pick (Switched to the Refuge), then canceled)

The third pick was canceled on the day of the pick because the Crew Leaders encountered extremely high winds when they

The November pick was scheduled on November 12th, 2011 between 10:00 am and 2:00 pm at the Jefferson County Ranson-Edwards Open Space property on the east side of Plainview Road about a mile north of SH 72. There were no specific target species for this pick. Rather, all native forb and grass species having ripe seed were targeted.

The Ranson Edwards site was scheduled to be visited on November 11th for a Crew Leaders' preview of the site and to see what species might be ready for picking and which portions of the site would be best for picking. However, a preliminary check of the site on November 10th found that nearly all the seed from grasses and forbs had fallen and that the site was not suitable for picking. Therefore, a last minute decision was made to switch the pick to the northwest part of Sec 15 on Rocky Flats National Wildlife Refuge. This area is down in a valley and had suffered less from the sun, wind, and snow. This site was explored on November 11th and selected because it had both an ample supply of seed and a location for lunch that was somewhat out of the wind that was predicted for November 12th.

On November 12th, crew leaders arrived at the entrance to Rocky Flats at 9:30, only to find that the wind, which had been manageable less than 5 miles to the south, was so strong that picking was not reasonable, due to concerns for the pickers' safety and well-being. Multiple gusts in the Boulder area surpassed 65 mph, and 1 gust of 89.5 mph was recorded at NCAR (<http://www.esrl.noaa.gov/psd/boulder/wind.html>). This was a disappointing last minute turn of events, since we had 12 adults and 11 youths expected at the event, including a Girl Scout troop, and all were en route to the site by the time the decision was made to cancel. Crew leaders were able to contact a few of the volunteers via cell phone and remained at the Rocky Flats (and the original Ranson Edwards) site until 11:00 am to be sure everyone knew of the cancellation. Costco was gracious enough to allow us to return most of the lunch items that had been purchased the previous day. A check of the intended pick site during the week following the wind storm revealed that about 95 percent of the seed had been blown off the plants.

2. Seed Quantity.

The total quantity picked in 2011 was 9 pounds of raw forb seed and 32 pounds of raw grass seed, for a total of 41 pounds of seed given to Legacy Management. Raw seed includes other plant material attached to the seed; actual seed weights are smaller than the above figures. Forb and grass seeds are kept separate because the recipients sometimes plant seed in areas on which a broad-leaf herbicide will be used and therefore use only grass seed initially since the herbicide would kill any forbs planted.

3. Crew Leaders.

These people are key to the success of the project. They provide the expertise to identify the plants from which to pick seed, the weed species to avoid, and to help coordinate the volunteers as they pick. Crew Leader's interaction with the volunteer pickers during the picks are also key to building a sense of community and increasing the likelihood that volunteers will return to another pick.

The special training session provided shortly before the pick dates for Crew Leaders covered the following points:

- Safety concerns and medical awareness.
- Species identification for key grasses, forbs, and noxious weeds.
- Instructions on how to pick, use of gloves and tape etc.
- Importance of group interaction—providing ongoing camaraderie and help on species identification.
- Collection of waivers from all volunteers.

On the day of a pick, one Crew Leader is typically assigned to welcome volunteers, collect their waivers (completed previously or filled out on-site), and record their attendance. Another Crew Leader is assigned to assist with parking of vehicles, if needed. Again this year we did not try to assign volunteers to a specific Crew Leader, but rather identified the Crew Leaders as folks to go to with questions and then let social groups form, or not, in a natural way. Crew Leaders then circulated among the groups, engaging volunteers in

conversation, answering questions, providing encouragement, etc. This seems to be the best approach to maximizing the enjoyment of all personalities present.

Crew Leaders are vital in this effort and they are offered a small stipend. Only two Crew Leaders billed us for this work. Two of the others were given a \$50 gift card to a Golden Restaurant to show our appreciation.

4. Volunteers.

A number of avenues for procuring volunteers were explored, including flyers, email, newspaper and newsletter articles, posting on the Volunteer Outdoor Colorado website, and personal communications (phone or face-to-face). An announcement of the 2011 pick dates was sent out on February 5 to all news organizations and individuals on our email list. A full announcement of our plans was sent on August 24th and reminders for individual picks were sent out on September 18th, October 16th, and November 7th to our email list. In addition, an email regarding a location change was sent to the list on November 10th.

Attached to the August 24th email were the following handouts: a description of the Xeric Tallgrass Prairie at Rocky Flats, a list of major prairie species on/near Rocky Flats and the current version of a color flyer with details about our events. These handouts were similar to those presented in the 2009 report. These same materials were used to advertise the picks in a variety of other ways.

Contacts included the following:

- Posting the JCNA seed picking opportunities on the Volunteers for Outdoor Colorado website and on YourHub.com.
- Contacts with local Boy Scouts and Cub Scouts, including attendance at the ___ Scout Powwow held at the Denver Coliseum in March.
- Contact with the Denver Area Girl Scout Council and Girl Scouts of Colorado.
- Contacts with churches (Saint Joan Catholic, Faith Bible Chapel and Faith Christian Academy, Arvada United Methodist, Church of the Latter Day Saints, Christ Community Covenant Church, Shrine of St. Anne Church, Ward Road Baptist Church, Arvada Covenant Church, Peace Lutheran Church, Applewood Baptist Church), primarily by having them on our email list. Note that Faith Bible Chapel contact asked to be taken off our mailing list for next year.
- Publication in the Community Calendar of the Great 8 Newspapers on several dates (Mile High News—Arvada Press, Lakewood Sentinel, Golden Transcript, Wheat Ridge Transcript and Metro North News—Northglenn-Thornton Sentinel, Westminster Window, Thornton Frontier, and Westsider) starting on July 27th and continuing through November 9th.
- Publication in the Events Calendar of The Arvada Press print edition on November 4 and perhaps in other print versions on that or other dates.
- Publication in the Colorado Native Plant Society News on August 29th
- Publication in the Colorado Weed Network Newsletter on October 27th and November 7th.

- Listing in the Golden Newsletter throughout the picking season from August 28th through November 6th.
- Distribution via nature-net@yahoo.com on September 19th
- Contact with several cities (City of Arvada's PeaceJam; City of Westminster; City of Broomfield); a number of organizations (The Nature Conservancy; Majestic Park Nature Center; Colorado Department of Public Health and Environment; Colorado Native Plant Societies--Boulder and Denver Chapters; Colorado Natural Heritage Program; Sand Creek Greenway; members of Friends of the Front Range Wildlife Refuges; Colorado Mycological Society and other botanical societies; Boulder County Nature Association; Colorado Natural Heritage Program), and National Honor Societies (Ralston Valley High School; Standley Lake High School; Pomona High School) via our growing email list.
- Posting of flyers in: Standley Lake Library, Arvada Library, Broomfield Library, Golden Library, Majestic Park Nature Center, Colorado School of Mines (CSM) Library (3 bulletin boards), Jeffco Open Space, CSM Environmental Science Department., Golden Recreation Center, and Colorado Mountaineering Center
- Contact with Ground Work Denver via Steve Berendzen, manager of Rocky Mountain Arsenal NWR.

The success of these contact avenues in providing volunteers varied. We will continue to add new contacts and sources for volunteer pickers in the future, with the above list forming our starting point for next year. The publications and key contact messages are shown in Appendix I.

5. Seed Germination Testing

Three germination trials for the major forbs and grasses occupying the upland habitats at Rocky Flats were performed in the JCNA greenhouse and garden. The first trial was a petri dish planting using seeds collected in 2010. The second petri dish trial used seeds picked in the fall of 2011. The percent germination for all species used in both petri dish trials are given in Table 1.

In trial one, six grass species were planted but only three germinated within 30 days, when trials were ended. Small percentages of mountain muhly and big bluestem, and a very high percentage germination of june grass, were recorded. In the second trial june grass was the only species of grass used and, while the percent germination figure was lower (33) than in the first trial, it was still considered good.

Forb germination was considerably higher for the three species tested in both trials ranging from 12-50 percent in the first trial, and 30-50 percent in the second. Porter's aster was significant in trial one (12 percent), a dry year; and high in the second trial (48 percent), a wet year. Blazing star germination was high; most of its seeds germinated, and most within two days of the 30th day after planting. High values (30-50 percent) were recorded for tall buckwheat and golden aster. These forb figures were gratifying inasmuch as the forb species had no cold treatment and are a major component of the tallgrass prairie.

Table 1

2011 Petri Dish Seed Germination Results		
	Trial 1	Trial 2
Grasses		
Mtn muhly	7	x
Big Bluestem	6	x
Little Blue	0	x
<i>Sporobolus crypt hetero</i>	0	x
Indian grass	0	x
Side oats	x	x
Blue grama	x	x
June grass	75	33
Forbs		
Porter's aster	12	48
Blazing star	x	50
Fall groundsel	x	x
Tall buckwheat	50	x
Golden aster	35	30
Trials		
1. Indoors, petri dishes, 25-100 seeds, ca. 70 degrees; seed collected 2010, planted Jan 2011,		
2. Indoors, petri dishes, 45-60 seeds, ca. 70 degrees, seed collected 2011, planted Nov 2011		
Figures are percentages, x = species not planted		
Scientific names listed on "Major Tallgrass Prairie Species" handout by JCNA		

The third trial was a planting in the JCNA outdoor garden using five species of grass and five of forbs. It was planted in early spring of 2011 and was nearly a complete failure owing to the unusually strong spring rains which flooded the garden and scattered the planted seeds outside the garden. We expect to repeat this garden planting in 2012 after some garden adjustments to prevent flooding.

In summary grass species germination, except for june grass, was low and indicates that more time may be needed, (perhaps even one or more years) to obtain higher germination percentages. Major forb species apparently do not require a cold period and gave far higher percent germination figures.

B. PROGRAM CHANGES RELATIVE TO PREVIOUS YEARS

In the 2009 and 2010 reports on seed picking, a number of recommendations for future efforts were made. These are shown in italics below followed by a summary of how these recommendations were implemented in 2011.

- *Start contacts early.*
Continue contacts with repeated reminders.
- All 2011 picks were in the fall. Therefore, by announcing the pick dates in February, potential volunteers were notified 7 months in advance of the first pick. An effort was made in 2011 to inform, but not intrude excessively. Therefore, the full details for all picks were sent out one month before the first pick and a single reminder was sent out the weekend before each fall pick date. The reminders included encouragement to join us, date and time, and directions to the pick site; only the waiver was attached (see Appendix 1).
- *Continued cultivation of high school Honor Society students is most worthwhile, partly to raise their environmental awareness. All of these students are required to do volunteer work and a better response is anticipated in the future.*
Coordination with sponsors will continue.
Contact with all of the high school National Honor Societies (NHS) continued via email and our email list was updated when we learned of a change in NHS leadership. Pomona NHS remained in contact with us, but was unfortunately unable to attend our 2011 picks due to schedule conflicts.
- *Half day picks are productive and more popular than full days. A more realistic time seems to be 8:30-12:30, followed by lunch.*
The scheduling of the first two picks between 8:30 am and 12:30 pm and the final pick between 10:00 am and 2:00 pm too avoid the early morning cold was continued in 2011. These timeframes continue to work well.
- *Follow up on new volunteer sources including the following:*
 - *City or County programs that require minor offenders to perform Community Service*
 - *Publication of ads in local newspapers*In 2011 we continued to contact leaders of the Peace Jam program, but we again had no participation from participants in that program. We will leave the PeaceJam leaders on our email list, but not engage with them otherwise in 2011, unless they initiate contact with us. We did hear from the Teen Court Coordinator for the Arvada Municipal Court, who promised to spread the word for us. She, too, will remain on our email list.
We were successful in placing ads in several newspapers, and greatly appreciated the two articles that were written about our picks (Appendix 1). The newspaper articles and calendar postings were effective in soliciting several volunteers to help us pick.
- *Continue to seek volunteers through the Volunteers for Outdoor Colorado web site (assuming it remains free or adds only a nominal charge), and all contacts made during 2009 and 2010.*
We continue to get a few volunteers from the web site. It also continues to serve as a valuable tool for contacting all registrants, for making all information available, and providing a printable list of expected attendees.
- *Additional contacts for seed picks include the following:*

- *Publication of an ad or a story in the Boulder Camera*
- *Get lists of contacts for high school science clubs*
- *Contact Master Gardener's program*
- *Contact Colorado State University to include our picks in their list of approved volunteer activities*
- *Contact city and county agencies that have community service programs*
- *List our events on additional web sites, including the AARP Create the Good volunteer opportunity website, and Nature Net*
- *Contact additional environmental organizations, including local Audubon groups, Colorado Environmental Coalition, Colorado Renewable Energy Societies, Colorado Wildlife Heritage Foundation, and Rocky Mountain Nature Association*

Again in 2011 we posted the dates for our picks on Nature Net. We will continue to pursue the remaining potential contacts in 2012.

- *Ask WRV to post our picking dates on their calendar and contact RMA Volunteers (through Sherry James, USFWS) and Friends of the Front Range Wildlife Refuges*
The members of Friends of the Front Range Wildlife Refuges who are on our mailing list will continue to be contacted. . RMA contributed to our program again this year by "loaning" us a Groundwork Denver Green Team. We will try again next year to connect with the RMA Volunteers and WRV.
- *As part of the initial orientation at a pick, make a bigger point of the philosophy to take only memories and photos (and seed); leave only footprints.*
This is a message we will continue to weave into the orientation.
- *Keep an eye on how well pickers are focused on their task and when they seem to be getting tired and wandering off task, stop the day's pick and serve lunch.*
We paid attention to whether pickers became tired or bored this year, but the 2011 volunteers were especially enthusiastic, and continued to pick until we announced that they should start working their way back toward the lunch tables.
- *Explore how to better handle large groups, especially when they contain a high percentage of youths. Problems encountered included the following:*
 - *Disappearance of disproportionate quantities of drink and food before all were served once, in fact before others had even returned from picking. Solution: Don't leave food and drink unattended and be more assertive in explaining expectations.*
 - *Picking of entirely wrong items such as large bags of mullein. Solution: Be more specific about what not to pick, and also look carefully in the bags before they are added to the group take (this prevented the mullein seed from being mixed in this year).*
 - *Insufficient instilling of "good plant"/"bad plant" mental images, left many unsure of what to pick. Solution: Perhaps break pickers into smaller groups after the initial health/safety/general protocol discussion, and have pre-picked samples to show everyone in the smaller group, then perhaps keep the groups together for a while until all are sure they have the right target plant(s) in mind.*

To better manage large groups in 2012, we kept all the food inside the vehicles except for water, which was available in the bed of the flatbed truck. To ensure more consistent picking of desired species, we have had more extensive

discussions with those who are bringing groups, although no problems arose this year; the several youths participating worked hard at picking the right species. To better instill mental images of what to pick, we set up a table with identified plants stuck into sand filled bottles and aggregated into “good plant” and “bad plant” groups. Volunteers looked at the plants while the group was gathering and again before heading into the field to pick. The only problem with this method was that it is susceptible to wind knocking the bottles over and blowing the identification placards away. We will look for a more stable setup for next fall.

- *Continue to expand our list of contacts, including the potential contacts identified in 2009 but not contacted in 2010*

The email list used to contact potential pickers has grown to over 380 names. After every pick, those who list their email address on the waiver are added to the list for future mailings. In early February, we will send out an announcement of the pick dates for 2012. At that time, we will ask if anyone wishes to be removed from our list and not receive the four emails planned to be sent out in the fall.

In addition, during the 2011 pick season we standardized our list of materials needed for each seed pick (Appendix 2) and assigned responsibility for each. This was helpful in ensuring we didn't forget any items and facilitated our preparation for each pick.

C. RECOMMENDATIONS FOR FUTURE EFFORTS

The picking effort in 2011 ran smoothly. JCNA will continue to strive toward implementing all of the suggestions above. Our approach will continue to be two pronged, in that we will strive to build relationships with those who can enthusiastically “spread the word” about our seed picks to groups with which they are involved, and we will also make information about our seed picks widely available via email, on bulletin boards, and in publications so that people who may be interested will be informed. To date, the greatest number of our volunteers has responded to emails, newspaper articles, flyers, and information from a friend or relative. To date, JCNA's efforts to attract volunteers by giving presentations to groups have not been particularly productive. Rather, volunteers have chosen to come on their own initiative after learning of the opportunity, or have been encouraged to come because of personal invitation from someone they already know.

Map 1.
2011 Pick
Locations



Appendix 1

Listings and Publications Seeking Volunteers

Arvada Press Postings

Posting in Arvada Press online Community Calendar-- July 27, Aug 3, 10, 17, 24, 31, Sep 7, 14, 21, 23, 28, Oct 12, 19, 26, Nov 2, 8
SEPT. 24 THROUGH NOV. 12

Seed Picking for Rocky Flats — Volunteer to pick local native grass and forb seeds to enhance Rocky Flats! Jefferson County Nature Association's 2011 volunteer seed picking efforts are scheduled in the Rocky Flats area between Golden and Boulder along SH93. Scheduled times are 8:30 a.m. to 12:30 p.m., Sept. 24 and Oct. 22 and 10 a.m. to 2 p.m. Nov. 12. Check the website or contact Jean Tate for picking locations, as they will be different for each pick. JCNA will provide lunch to all those who let us know they are coming by the Thursday prior to each pick. Please contact us to make special arrangements if your group is large or you are bringing kids younger than 12 years old. Adults must sign a waiver at the site. Those under 18 must bring a waiver signed by a parent. Check the web site for more information at <http://tinyurl.com/SeedPick> or contact Jean Tate at djt_co@yahoo.com.

Postings in Golden Newsletter, August 28-Nov 6

Aug 28 Full listing

SEED PICKING IN JEFFCO Jefferson County Nature Association (JCNA) conducts three picks each fall to gather seeds of native plant species with local genetics. These seeds are used to increase the diversity and local adaptation of revegetated areas on Rocky Flats. In addition to contributing to a good cause and offering a lovely Saturday morning along the Front Range, these picks enable access to locations that may not otherwise be accessible....

Fall seed picking time is rapidly approaching, so please put the following dates and locations for the JCNA seed picking opportunities in your calendar:

September 24 (Saturday), 8:30am-12:30pm, Rocky Flats NWR

October 22 (Saturday), 8:30am-12:30pm, Jewel Mountain

November 12 (Saturday), 10:00am-2:00pm, Ranson-Edwards

We ask that participants register at <http://tinyurl.com/SeedPick> so we know how many folks to plan lunch for, and email Jean at djt_co@yahoo.com or Paul at pdkilburn@msn.com if they have questions.

The early summer rains caused many species to flourish and we are looking forward to exceptional seed production, so we are especially hopeful that you will publicize this year's seed picking opportunities

Subsequent Listings

SEP 24: SEED PICKING: ROCKY FLATS

September 24 (Saturday), 8:30am-12:30pm, Rocky Flats NWR

October 22 (Saturday), 8:30am-12:30pm, Jewel Mountain

November 12 (Saturday), 10:00am-2:00pm, Ranson-Edwards

We ask that participants register at <http://tinyurl.com/SeedPick> so we know how many folks to plan lunch for, and email Jean at djt_co@yahoo.com or Paul at pdkilburn@msn.com if they have questions.

OCT 22: SEED PICKING: JEWEL MOUNTAIN

October 22 (Saturday), 8:30am-12:30pm, Jewel Mountain

November 12 (Saturday), 10:00am-2:00pm, Ranson-Edwards

We ask that participants register at <http://tinyurl.com/SeedPick> so we know how many folks to plan lunch for, and email Jean at djt_co@yahoo.com or Paul at pdkilburn@msn.com if they have questions

NOV 12: SEED PICKING: RANSON-EDWARDS

November 12 (Saturday), 10:00am-2:00pm, Ranson-Edwards

We ask that participants register at <http://tinyurl.com/SeedPick> so we know how many folks to plan lunch for, and email Jean at djt_co@yahoo.com or Paul at pdkilburn@msn.com if they have questions.

CONPS News

Fall Seed Picking

September 24 (Saturday), 8:30am-12:30pm, Rocky Flats NWR

October 22 (Saturday), 8:30am-12:30pm, Jewel Mountain

November 12 (Saturday), 10:00am-2:00pm, Ranson-Edwards

Jefferson County Nature Association (JCNA) conducts three picks each fall to gather seeds of native plant species with local genetics. These seeds are used to increase the diversity and local adaptation of revegetated areas on Rocky Flats. In addition to contributing to a good cause and offering a lovely Saturday morning along the Front Range, these picks enable access to locations you may not otherwise have an opportunity to visit.

Please register at <http://tinyurl.com/SeedPick> so we know how many folks to plan lunch for. If you have questions, email Jean at djt_co@yahoo.com or Paul at pdkilburn@msn.com. The early summer rains caused many species to flourish, and we are looking forward to exceptional seed production! These picks should be particularly productive and enjoyable, so we hope you are able to join us on one or more days!

Your Hub Posting

JCNA Seed Picking for Rocky Flats

Posted: 09/06/2010 08:10:54 AM MDT Updated: 09/06/2010 08:10:54 AM MDT



Tags: [All Categories](#) [Volunteering](#) [Denver](#)

Volunteer to pick local native grass and forb seeds to enhance Rocky Flats!

September 25, 2010, 8:30-12:30 followed by lunch on us

Jefferson County Nature Association's 2010 volunteer seed picking efforts are scheduled in the Rocky Flats area between Golden and Boulder and just west of SH93 on SH72.

REGISTER AT: <http://tinyurl.com/SeedPick>.

Contact Jean Tate if you have questions (djt_co@yahoo.com).

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Tags: [Rocky Flats](#) [The Jefferson County Nature Association](#) [Jewel Mountain Open Space](#) [Ranson Edwards Open Space](#) [Jean Tate](#) [Pat Murphy](#)

About the Author



Karen Groves

E-Mail: kgroves@denverpost.com

Volunteers who don't mind spending a morning outdoors in the open space areas between Golden and Boulder are needed to help pick seeds that will be used to revegetate Rocky Flats.

[The Jefferson County Nature Association](#) will provide lunch for crews Oct. 22 at Jewel Mountain Open Space and Nov. 11. at Ranson Edwards Open Space. Work begins those days at 8:30 and 10 a.m., respectively.

According to ecologist and association treasurer Jean Tate, there will be trained crews on hand to help volunteers identify grasses and broadleaf plants, as well as noxious weeds, which are not desirable.

Seeds collected will be used to enrich and restore the original prairie that existed before Rocky Flats was developed. The area will be reseeded by the Office of Legacy Management, which maintains remediation at the site.

Volunteers will need to wear layered clothing, hiking shoes and bring water and gloves.

Tate said, "What we want is a revegetated prairie that's as close to a native grassland as we can get."

She said the use of locally adapted native grass species will provide a more diverse prairie, with a mixture of grasses.

Pat Murphy, a volunteer and botanist, said seed picking is a learning experience.

"People drive by Rocky Flats and say, 'Oh, that's pretty' or 'Oh, it looks ugly and weedy.' This is a way to put a name to what they are looking at and see the pieces up close and personal, instead of the blur in the windshield."

To register, go to <http://tinyurl.com/seedpick> or email Tate at djt_co@yahoo.com or Paul Kilburn at pdkilburn@msn.com.

Nature-Net Email

Fw: Jefferson County Nature Association Seed Pick

TO: nature-net@yahoogroups.net

Monday, September 19, 2011 9:29 AM

Message body

Saturday, 24 September

8:30 AM to 12:30 PM

Volunteers needed for first pick of native prairie seeds used to revegetate Rocky Flats. Crew leaders will give brief training on identification of native species, show how to pick seeds, and what weeds to avoid. A great chance to learn about the ecology of native prairie in a beautiful setting. Free lunch provided for those who RSVP by the Thursday before the pick. This first pick will enable you to visit Rocky Flats National Wildlife Refuge, normally closed to the public. Get more info and register at <http://tinyurl.com/SeedPick>. Additional picks on October 22 and November 12 at different locations. For questions email Jean at djt_co@yahoo.com or Paul at pdkilburn@msn.com. The prairie is spectacular this fall.....

Colorado Weed Network Newsletter 10/27

Upcoming Meetings/Field Trips

October 22, 2011. Jefferson County Nature Association's volunteer seed picking effort at Jewell Mountain Open Space – Jefferson County. 8:30am-12:30pm. Seeds collected will be used to enrich or help restore the original prairie present before the Rocky Flats site was developed. Training will be provided. For complete details:

http://www.volunteeroutdoors.net/index.cfm?fuseaction=Opportunities.View&Opportunity_ID=2770 or contact Jean Tate at djt_co@yahoo.com.

November 12, 2011. Jefferson County Nature Association's volunteer seed picking effort at Ranson-Edwards Open Space – Jefferson County. 10:00am-2:00pm. Seeds collected will be used to enrich or help restore the original prairie present before the Rocky Flats site was developed. Training will be provided. For complete details: http://www.volunteeroutdoors.net/index.cfm?fuseaction=Opportunities.View&Opportunity_ID=2770 or contact Jean Tate at djt_co@yahoo.com.

Colorado Weed Network Newsletter 11/7

November 12, 2011. Jefferson County Nature Association's volunteer seed picking effort at Ranson-Edwards Open Space – Jefferson County. 10:00am-2:00pm. Seeds collected will be used to enrich or help restore the original prairie present before the Rocky Flats site was developed. Training will be provided. For complete details: http://www.volunteeroutdoors.net/index.cfm?fuseaction=Opportunities.View&Opportunity_ID=2770 or contact Jean Tate at djt_co@yahoo.com.

2011 Communications with Email List

8/24/2011 Email

From: D. Jean Tate [mailto:jeantate@enviro-support.com]
Sent: Wednesday, August 24, 2011 4:50 PM
To: 'jeantate@enviro-support.com'
Cc: 'Paul Kilburn'
Subject: JCNA Seed Picking---Fall and Seed Picking Opportunities Rapidly Approaching!--News Group

Jefferson County Nature Association (JCNA) conducts three picks each fall to gather seeds of native plant species with local genetics. These seeds are used to increase the diversity and local adaptation of revegetated areas on Rocky Flats. In addition to contributing to a good cause and offering a lovely Saturday morning along the Front Range, these picks enable access to locations that may not otherwise be accessible.

You may have received a phone call from Paul Kilburn, President of JCNA, asking you to please put these picks in your Event Calendar and perhaps write a feature article about our events, too. If you haven't heard from Paul, please consider this email as such a request. If you publicized our events last year, we are most grateful. This year, we are already listed in the Arvada Press Events Calendar, and hope you will soon follow suit. We would greatly appreciate your help in spreading the word about our seed picking opportunities.

Fall seed picking time is rapidly approaching, so please put the following dates and locations for the JCNA seed picking opportunities in your calendar:

September 24 (Saturday), 8:30am-12:30pm, Rocky Flats NWR
October 22 (Saturday), 8:30am-12:30pm, Jewel Mountain
November 12 (Saturday), 10:00am-2:00pm, Ranson-Edwards

To be sure you have all the information you need, I have attached several files to this email. The zip file contains our flyer in case you have a location to post it, and it also contains the Waiver, which must be signed by a parent for any participant under 18. We ask that participants register at <http://tinyurl.com/SeedPick> so we know how many folks to plan lunch for, and email Jean at djt_co@yahoo.com or Paul at pdkilburn@msn.com if they have questions.

The early summer rains caused many species to flourish and we are looking forward to exceptional seed production, so we are especially hopeful that you will publicize this year's seed picking opportunities.

Many thanks for whatever help you can give us....

Jean

D. Jean Tate, Ph.D.
Enviro-Support, Inc.
7485 Quartz Street
Arvada, CO 80007-7943
303.403.4748 phone; 720.341.9254 cell
jeantate@enviro-support.com

9/18/2011 Email

From: D. Jean Tate [<mailto:jeantate@enviro-support.com>]

Sent: Sunday, September 18, 2011 3:19 PM

To: 'jeantate@enviro-support.com'

Subject: JCNA Seed Picking Reminder for Saturday Morning, 24 September.....!--
Group 3

All,

In less than a week it will be time to pick seeds on the Rocky Flats NWR for use on the reclaimed areas of the Rocky Flats plant site! We hope to see you on Saturday, September 24th, 8:30-12:30. Remember, this first pick is on Rocky Flats National Wildlife Refuge, and provides you a seldom available glimpse of the lovely lands on that refuge, which is not yet open to the public. We'll be buying food for lunch on Friday morning, so if you haven't already, please register at <http://tinyurl.com/SeedPick> by Thursday evening--and a special thanks to those of you who are registered already! A copy of the waiver is attached so you won't need to dig for it....

We'll enter the west side of Rocky Flats National Wildlife Refuge via the old Rocky Flats Plant entrance road that is north of SH 72 and runs east off SH 93 and can be reached as follows:

- Go to the intersection of SH 93 and SH 72 (a stop light) by taking SH 93 north from Golden (=Foothills Road+SH 93+US 6—continue north on 93 when US 6 turns west)

or SH 72 north then west from Arvada (=Indiana Street+SH 72—turn west at 86th Parkway to stay on SH 72 while Indiana continues north).

- From the intersection go north on SH 93 nearly 1.4 miles to the next stop light at the old west entrance road to Rocky Flats. Go east on the entrance road for about a mile to a locked gate where we will meet you with a smile at 8:30 am sharp.

We'll pass through this gate as a group and lock it behind us, parking some cars along the side of the entrance road near the gate and car pooling beyond the gate to minimize the number of cars inside the refuge.

As a special treat after lunch, we'll take those interested on a special tour of the Rock Creek valley to discuss its ecology and hopefully see the nearly 50 elk who have been seen there repeatedly in recent weeks. This will be a great opportunity to enjoy a bit more of the refuge, so bring your camera and binoculars for this special side trip.

This is the year to come out and see the prairie.....the grasses are truly marvelous thanks to the early rains, and some of the big bluestem is 5 feet high!!

Jean

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303.403.4748 phone; 720.341.9254 cell
jeantate@enviro-support.com

10/16/2011 Email

From: D. Jean Tate [mailto:jeantate@enviro-support.com]
Sent: Sunday, October 16, 2011 11:17 PM
To: 'djt_co@yahoo.com'
Cc: 'Paul Kilburn'
Subject: JCNA--October 22 Seed Pick next Saturday!--Group 4

All,

A reminder that our October 22 Seed Pick date (8:30 am to 12:30 pm) is nearly here!! If you haven't already, please register by Thursday at www.tinyurl.com/SeedPick (you need to create a profile and sign in to register).....The extended forecast is for a sunny day ranging from 43 to 68°F. What could be nicer!!

This time the pick will be on the City of Boulder's Jewel Mountain Open Space at the NE corner of SH 72 and Plainview Road (see below for more explicit directions). We're looking forward to seeing some familiar faces and some new faces as well.....Contact me or Paul (pdkilburn@msn.com) if you have questions.

Should be a great day!!!

Jean

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Arvada, CO 80007-7943
303.403.4748 phone; 720.341.9254 cell
jeantate@enviro-support.com

**Directions to October 22nd Seed Picking
at
City of Boulder Jewel Mountain Open Space Property:**

- Go to intersection of SH 93 and SH 72 (at a traffic light ~8 miles north of Golden on SH 93)
 - Go west on SH 72 1.7 miles to Plainview Road.
- Turn north for several hundred feet and park along the side of Plainview Road (Jewel Mountain is on the NE corner of this intersection)
- We'll meet you with a smile on Plainview Road just north of its junction with SH 72!!

11/7/2011 Email

From: D. Jean Tate [<mailto:jeantate@enviro-support.com>]

Sent: Monday, November 07, 2011 10:44 AM

To: 'jeantate@enviro-support.com'

Cc: 'Paul Kilburn'

Subject: Final JCNA Seed Pick--November 12th, 10:00am to 2:00pm-Group 6

Importance: High

All,

A reminder that the final JCNA seed pick will be on November 12th, starting at 10:00 am (to give the day time to warm up a bit!). Hopefully, we'll have snow free ground and sunny skies—plus SEEDS. Please REGISTER AT: <http://tinyurl.com/SeedPick> if you haven't already, so we'll know to count you in for lunch. At the web site, you must create a profile and sign in before you can register. We still have a number of spaces available, so hope you can join us. Contact Jean (djt_co@yahoo.com) or Paul (PDKilburn@msn.com) if you have questions. Directions to the picking site are below.....and a waiver is attached in case you need it. Hope to see you on the 12th!!

P.S. Please check your email Friday evening (Nov. 11th) just in case we need to send out a postponement due to weather---a little snow won't hurt us, but if the plants are covered.....we could postpone. We will be checking the site on Friday in early afternoon and will let you know by 9 pm if there is a problem!

**Directions to November 12th Seed Picking
at
Ranson/Edwards Jeffco Open Space Property:**

- Go to intersection of SH 93 and SH 72 (at a traffic light ~8 miles north of Golden on SH 93)
- Go west on SH 72 1.7 miles to Plainview Road.
- Proceed north ~0.8 miles on Plainview Road to a track that leads eastward into the Ranson/Edwards property
- Park nearby on the east side of Plainview Road.
- We'll meet you with a smile at the junction of Plainview Road and the track.

Jean

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Arvada, CO 80007-7943
303.403.4748 phone; 720.341.9254 cell
jeantate@enviro-support.com

11/10/2011 Email

From: D. Jean Tate [<mailto:jeantate@enviro-support.com>]
Sent: Thursday, November 10, 2011 5:24 PM
To: 'jeantate@enviro-support.com'
Subject: JCNA Seed Pick LOCATION CHANGE...!--Group 6

The weather promises to be good on Saturday and we will pick from 10:00 am – 2:00 pm. HOWEVER, we will be picking at Rocky Flats instead of the Ranson-Edwards Open Space. This is because the wind and snow did less damage at Rocky Flats and there is more good seed remaining there to reward our efforts. Likely we will pick from 10:00 am until about 1:00 or 1:15 pm then stop for lunch. We will be picking on the side slopes of the plateau and will be somewhat out of any wind that may blow. If anyone must leave early, we will accommodate a late morning trip back to the locked gate.

Directions to the Rocky Flats pick site are below. This will be a great opportunity to see this unplowed prairie where grass and forb seed is still abundant!! We will pick on the west side of Rocky Flats, but south of where we have picked at any time in the past.

Looking forward to seeing each of you there!!

Jean
303-423-9165
720-341-9254 cell

**Directions to November 12th Seed Picking
on
Rocky Flats National Wildlife Refuge**

- Enter the west side of Rocky Flats National Wildlife Refuge via the old Rocky Flats Plant entrance road that is north of SH 72 and runs east off SH 93
- Reach the intersection of SH 93 and SH 72 (a stop light) by taking SH 93 north from Golden (=Foothills Road+SH 93+US 6—continue north on 93 when US 6 turns west) or SH 72 north then west from Arvada (=Indiana Street+SH 72—turn west at 86th Parkway to stay on SH 72 while Indiana continues north).
- From the intersection go north on SH 93 nearly 1.4 miles to the next stop light at the old west entrance road to Rocky Flats. Go east on the entrance road for about a mile to a locked gate where we will meet you with a smile.
- We'll pass through this gate as a group and lock it behind us, parking some cars along the side of the entrance road near the gate and car pooling beyond the gate to minimize the number of cars inside the refuge.

Appendix 2.
List of Seed Picking Materials]

- Permit and necessary keys [PK]
- List of registered attendees so can check off those present [JT]
- Wooden seed strainers for forbs and grasses (4-6) [PK]
- Waiver clip board, several pens, and extra blank waivers [JT]
- Plastic Collecting bags (3 per person, including 1 extra in case of damaged or overfull bag) [PK]
- Large seed bags for seed collected [PK]
- Lunch food (napkins, cups, plates, ham, beef, turkey, cheese, bread, chips, apples, soft drinks, cookies, horseradish sauce, mayonnaise, mustard, pickles) [JT]
- Ice (about 40-60#--about 10# in each water jug with rest into coolers) [PK]
- Large rolling cooler for ice and drinks [PK]
- Small cooler for meat, cheese, condiments and, if room, apples [PK]
- Water in insulated jugs and a few bottles of water for those who forget their own containers [PK-JT]
- Tables for lunch (2) [PK]
- Chairs for lunch servers [PK]
- Get Porta-Pottie there [PK]
- Plant List for Crew Leaders [PK]
- Samples of plants to pick and plants to avoid [PK]
- Beer bottles filled with rocks or sand to hold sample plants [PK]
- Labels for sample plants (affix to beer bottles so don't blow away) [PK]
- Miscellaneous: Sun Block, pens, masking tape [PK]
- Twine to affix collecting bags to waist/belt/belt loops and to tie large bags [PK]
- Two folding tables; one for waivers, and one for beer bottles [PK]
- Trash barrels (2) and black plastic bags—1 for recyclable items and 1 for garbage [PK]
- Signs for trash barrels [PK]
- Info and maps on human and geologic history of Rocky Flats as appropriate; have copy of noxious weeds book available to discuss and show volunteers [PK]
- Red cones for parking and/or to mark turns [PK]
- Cell phone for emergencies and coordination [JT]
- Folding knife to cut twine, open lunch packages, etc. [All]
- First aid kit for minor injuries [PK]

NOTES:

- Be sure lunch food and drinks are put away so are unavailable until lunch time
- Check plastic collecting bags for holes and broken handles before putting in large bag for storage

Tell folks to separate forbs (define) and grasses, to avoid noxious weeds, seeds that are too green, and non-native species, not to pull plants up by root but to harvest just the seed

by breaking or cutting seed head off or by stripping seed with finger nails. Seed only wanted--avoid stems and rose hips.