

Willamette Valley Native Plant Materials Partnership: 2016 Annual Report



3/31/2017

Report to the Willamette Valley Native Plant
Materials Partnership

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Institute for Applied Ecology



PREFACE

IAE is a non-profit organization whose mission is conservation of native ecosystems through restoration, research, and education. IAE provides services to public and private agencies and individuals through development and communication of information on ecosystems, species, and effective management strategies. Restoration of habitats, with a concentration on rare and invasive species, is a primary focus. IAE conducts its work through partnerships with a diverse group of agencies, organizations and the private sector. IAE aims to link its community with native habitats through education and outreach.



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Benton County Natural Areas and Parks; Benton Soil and Water Conservation District; Bureau of Land Management; Cascade Pacific Resource Conservation and Development; City of Corvallis Parks and Recreation; City of Eugene Parks and Open Spaces; Columbia Land Trust; Confederated Tribes of Grand Ronde; Friends of Buford Park and Mt Pisgah; Greenbelt Land Trust; Heritage Seedlings, Inc.; Institute for Applied Ecology; Kenagy Family Farm, Inc.; Long Tom Watershed Council; Marys River Watershed Council; McKenzie River Trust; Oregon Metro; Natural Resources Conservation Service; Oregon Department of Fish and Wildlife; Oregon Department of Transportation; Oregon Parks and Recreation Department; Oregon Seed Certification Service; Oregon Wholesale Seed Co.; Pacific Northwest Natives; Polk Soil and Water Conservation District; The Nature Conservancy, Oregon Chapter; Trillium Gardens; United States Army Corps of Engineers, Portland District, Willamette Valley Project; United States Fish and Wildlife Service, Willamette Valley Refuges; Willamalane Park and Recreation District; Willamette Habitat Restoration; and Yamhill Soil and Water Conservation District.

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Cover photograph: Western buttercup (*Ranunculus occidentalis*) and common camas (*Camassia quamash*) blooming in eastern Linn County. *Photo by Lindsay Willrick*

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Table of contents

PREFACE	II
ACKNOWLEDGEMENTS	III
SUGGESTED CITATION	III
EXECUTIVE SUMMARY	5
INTRODUCTION	5
SUMMARY OF ACCOMPLISHMENTS TO DATE	5
2016 ACTIVITIES	7
Seed collection	7
Seed production.....	8
Seed distribution.....	13
Seed storage.....	13
Seed inventory	13
FINANCIAL SUMMARY	14
2016 WVPNMP income	14
2016 WVPNMP expenses.....	14
2016 contributing partner payback.....	15
2016 seed sales	15
2017 projected budget	16
NEXT STEPS	17
REFERENCES	17
APPENDIX A: 2013-2016 COLLECTION MAP.	18
APPENDIX B. WILD COLLECTIONS OF 2017-2018 PRODUCTION SPECIES.	19
APPENDIX C: 2013-2016 SEED COLLECTION SUMMARY.	22
APPENDIX D: 2013-2016 PRODUCTION AND YIELDS SUMMARY.	23
APPENDIX E: WVPNMP SEED ORDER FORM	24
APPENDIX F: 2016 EXPENDITURES BY ACTIVITY	25

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EXECUTIVE SUMMARY

In 2012, the Willamette Valley Native Plant Materials Partnership (Partnership) was formed to provide native plant materials to partners to protect and restore the native ecosystems of the Willamette Valley Ecoregion. In 2016, the Partnership engaged in the following activities in order to achieve that mission: secured funding for 2016 and most of 2017 Partnership operations, maintained 14 established native seed production fields, put one new species into production, collected 5.6 pounds of wild seed of six native species used in restoration projects, distributed 488 pounds of seven species of native seed to partners, added two new members to the Partnership, and finalized a sustainability model to help the Partnership transition from relying on partner contributions to funding operations through seed sales.

INTRODUCTION

The Willamette Valley Native Plant Materials Partnership (WVNPMP or Partnership) was founded in 2012 by 24 restoration organizations and native plant producers to cooperatively coordinate and fund the production of high quality native plant materials for use in restoration, revegetation, and mitigation projects in the Willamette Valley Ecoregion. There are currently 32 restoration and production members of the Partnership. The Partnership is housed at and coordinated by the Institute for Applied Ecology, and funded by restoration partner contributions and grants. This report details Partnership activities that occurred in 2016 and gives a funding and spending summary for the year.

SUMMARY OF ACCOMPLISHMENTS TO DATE

In 2013, the Partnership developed a five-year strategic plan that identified five goals that members wished to accomplish in that time frame. Below is a summary of the progress towards achieving these goals.

Goal 1 – Establish the Willamette Valley Native Plant Materials Partnership and build organizational infrastructure to support WVNPMP activities.

- Developed a Memorandum of Understanding (MOU); 24 members have signed.
- Added eight new members to the Partnership since its inception, bringing the total membership to 32 organizations and growers.
- Secured almost \$500,000 of funding from Partnership member organizations and grants. Fully funded Partnership operations from 2012-2016, and secured the majority of the funding needed for 2017 operations.

- Finalized a financial sustainability model for transitioning from full support by partner contributions to full support through seed sales.

Goal 2 – Increase availability of native plant materials, increase marketplace stability by aligning projected needs with grower capacity, and reduce the risk of growing plant materials on speculation.

- Surveyed partners regarding projected plant materials needs twice, once in 2012 and again in early 2016.
- Entered 13 species into production: *Achillea millefolium* (western yarrow), *Acmispon americanus* (Spanish clover), *Carex tumulicola* (foothill sedge), *Epilobium densiflorum* (dense spikerose), *Lomatium nudicaule* (barestem lomatium), *Madia elegans* (common tarweed), *Plectritis congesta* (rosy seablush), *Potentilla gracilis* (slender cinquefoil), *Prunella vulgaris* var. *lanceolata* (self-heal), *Sidalcea campestris* (meadow checkermallow), *Sidalcea malviflora* ssp. *virgata* (dwarf checkermallow), *Solidago lepida* var. *salebrosa* (western goldenrod), and *Ranunculus occidentalis* (western buttercup).
- Adopted and maintained production fields for two high priority restoration species: *Juncus occidentalis* and *Symphyotrichum hallii*.
- Collected enough seed of two species to enter them into production in 2017: *Clarkia amoena* (farewell-to-spring) and *Eriophyllum lanatum* (Oregon sunshine).

Goal 3 – Centralize coordination of collecting, producing, and distributing native plant materials to improve efficiency and lower costs.

- Hired, trained and supervised seed collection crews from 2013-2016.
- Recruited, trained and supervised seed collection volunteers and interns (including one high school intern).
- Collected 70.2 pounds of seed of 22 native species from the Partnership's prioritized list of restoration species.
- Received contributions 4.9 pounds of wild-collected seed from two partners – the City of Eugene and Oregon Metro.
- Developed a process for distributing Partnership seed to members.
- Distributed 717.5 pounds of seven species of seed produced or acquired by the Partnership to members.

Goal 4 – Improve quality and genetic appropriateness of native plant materials used in restoration, mitigation, and revegetation projects in the Willamette Valley.

- Developed and supported a Species Selection Committee to provide recommendations to the Partnership on species selection, annual collection plans, and how to resolve taxonomic, genetic and geographical issues that arise.
- Developed guidelines for the genetic refreshment of Partnership seed production fields, where appropriate.
- Recommended and approved new species for Partnership collection list.

Goal 5 – Provide an online forum for sharing information within the WVNPMP and to other interested parties and the general public.

- Developed Partnership website (<http://wvcoop.nativeseednetwork.org/>). Website contains information for the general public, as well as a members-only login portal for internal communications.
- Posted job openings for seasonal seed collection crew on the Partnership website, as well as in other online venues. All outside postings linked back to the Partnership website.
- Wrote blog posts for Partnership website.
- Consulted with three organizations wishing to develop a similar partnership in other regions (Arizona, New Mexico, and the Oregon Coast).

2016 ACTIVITIES

Seed collection



FIGURE 1. RANUNCULUS OCCIDENTALIS (WESTERN BUTTERCUP) IN SEED.

In 2016, the Partnership funded half of a three-person seed collection crew, which included a high school intern from the Saturday Academy’s Apprentices in Science and Engineering (ASE) program. The remainder of the seed collection crew funding came from other projects involving seed collection. The 2016 seed collection crew spent approximately half of their time working on Partnership planning, scouting, and collection. The crew scouted for seven species from the priority list (see Partnership’s strategic plan for list, Willamette Valley Native Plant Materials Partnership 2013) at 41 sites, and collected seed from five species at 32 sites throughout the Willamette Valley. See Appendix A for a map of 2013-2016 seed

collection sites throughout the valley. See Appendix B for collection maps of each species to be entered into production in 2017 and 2018.

Allium amplexans (narrowleaf onion), *Clarkia amoena* (farewell-to-spring), and *Ranunculus occidentalis* (western buttercup) were the primary focus of 2016 seed collection efforts. Seed of two species, *Danthonia californica* (California oatgrass) and *Eriophyllum lanatum* (Oregon sunshine), was collected only opportunistically in small amounts from few sites. Seed of one species, *Wyethia angustifolia* (narrowleaf mules ears), was donated by the City of Eugene for the establishment of a production field in the future. See Table 1 for a list of target species and collection information from the 2016 field season. See Appendix C for a summary of all collection information for all species from 2013-2016. For species with multiple years of collection data, the sites visited in 2016 often include the same sites visited in 2013, 2014, and/or 2015. Also, the total amount collected is rarely evenly distributed among the collection sites; in most cases, the majority of the seed comes from the south and/or west parts of the Willamette Valley.

Species must often be collected for two to three years before diversity goals are reached and there is sufficient quantity to start a production field. In some cases, collecting enough seed for the establishment of the target field size will take too much time, and a small seed increase field is established first. G1 seed produced by the seed increase field is then used to establish a larger production field.

In 2016, seed of two species was collected in sufficient quantities and diversity to initiate production. Collection of *Ranunculus occidentalis* was initiated in 2015 and reached diversity goals in 2016. *Clarkia amoena* had been collected for four years with no increase in site diversity despite continued scouting, with most collection sites concentrated in the west and south valley. While in future years we will continue to look for new sites that will increase geographical diversity, it became clear that another year of collection would not likely increase genetic diversity. Consequently, the Partnership decided to move forward with entering this species into production in 2018. Finally, *Eriophyllum lanatum* had been collected for three years with target seed amounts and diversity goals reached in 2015. However, the issue of multiple ploidy levels for this species has caused the Species Selection Committee to recommend delaying production until an evaluation of ploidy levels for each collection site has been conducted. This evaluation will inform production decisions for this species, and address Partnership concerns about mixing diploid and tetraploid plants in the same production field. The Partnership is currently seeking funding to conduct that evaluation.



FIGURE 2. INSTITUTE FOR APPLIED ECOLOGY SEED CREW MEMBERS LINDSAY WILLRICK, KIAN BEHMAN, CHRISTINA PARTIPILO, AND LAUREN GEDLINSKE IN THE FIELD.

TABLE 1. SUMMARY OF 2016 WILLAMETTE VALLEY NATIVE PLANT MATERIALS PARTNERSHIP SEED COLLECTION EFFORTS.

Scientific name	Common name	#of 2016 collection sites	Amount collected in 2016 (lbs)	Projected first year of production
<i>Allium amplexans</i>	narrowleaf onion	7	0.17	2018/19
<i>Clarkia amoena</i> var. <i>lindleyi</i>	farewell-to-spring	12	0.26	2018
<i>Danthonia californica</i>	California oatgrass	2	0.25	2018
<i>Eriophyllum lanatum</i>	woolly sunflower	1	0.01	2018
<i>Ranunculus occidentalis</i>	western buttercup	17	1.63	2017
<i>Wyethia angustifolia</i> (donated seed)	narrowleaf mules ears	2	3.3	2019

Seed production

Fourteen previously established seed production fields were maintained in 2016. One new species was entered into production in the fall of 2016: *R. occidentalis*. This field is intended to be a seed increase field; G1 seed produced by this field will be used to establish a bigger field in 2-3 years. Two

additional new species, *C. amoena* var. *lindleyi* and *E. lanatum*, will be sown directly into a field in the fall of 2017. The field size for each species is based upon grower yield estimates combined with usage estimates from the Partnership. In 2016, harvests were received from seven production fields for the following species: *Epilobium densiflorum*, *Juncus occidentalis*, *Madia elegans*, *Plectritis congesta*, *Potentilla gracilis*, *Prunella vulgaris* var. *lanceolata*, and *Solidago lepida* var. *salebrosa*.

Since the inception of the Partnership, the Natural Resource Conservation Service's (NRCS) Corvallis Plant Materials Center (PMC) has been a valued member, and many of the Partnership's production fields were placed at the PMC. However, in 2016, the NRCS terminated the Memorandum of Understanding between the PMC and IAE, and began phasing out its native plant production reimbursable agreements with other federal partners. As a result, in 2016 the Partnership had to develop a plan to transition its eight PMC fields to other growers. Some of the fields at the PMC were seed increase fields, and the Partnership always intended to establish the larger production field with a different grower. Some of the fields at the PMC did not establish well, and would have had to be restarted regardless of the transition. Of the remaining fields at the PMC, the Partnership was able to keep several fields there for an additional year (through 2017) through an extension of an existing agreement between NRCS and USFWS. At this time, the Partnership has identified new growers for five of the eight fields located at the PMC. Of the remaining three PMC fields, one species (*Juncus occidentalis*) will be discontinued as there is enough seed stockpiled to last for several years. We hope to have identified growers for the remaining two fields (*Calochortus tolmiei* and *Plectritis congesta*) by the end of 2017. See species sections below for more detailed descriptions of production for each species. See Table 2 for a list of current and proposed future production (through 2018), along with 2016 yields, and current farm location. See Appendix D for a summary of all production and harvests for 2013-2016. For PMC fields, a second farm is listed if one has been identified; if TBD is listed then the farm location is not yet determined.



Achillea millefolium

This species is being grown for seed increase in a field of 0.25 acres at Pacific Northwest Natives (PNN). Its first growing season was in 2016, and the Partnership expects to receive the first harvest in 2017. Since the second year is the peak year for production in this short-lived perennial, seed from the 2017 harvest will be used to start a larger field with the same grower.



Acmispon americanus

One acre of this annual species was grown with PNN in 2016, using G1 seed produced from a seed increase field at the PMC in 2015. Due to late maturity of the plants and early rains in the fall, the harvest was unsuccessful. The field will be re-sown in 2017 with reserve seed.



Carex tumulicola

After being restarted once due to low germination of seed during the first attempt at field establishment, this species has been in production for two years at the PMC in a 0.1 acre field. *C. tumulicola* takes at least three years to reach the first harvest and so 2017 may be the first harvest year. This field remains at PMC through 2017, and at the end of the year plants from this field will be dug up and moved to the IAE farm. This will shorten the amount of time associated with reestablishing the field, as well as retain the highly diverse genetics of the PMC field, which was started with the original wild seed. We expect the first harvest from the newly established field in 2018 or 2019.



Clarkia amoena

After collecting seed for this species for four years in an attempt to create an accession with the geographic diversity desired by the Partnership, it was decided to put this species into production in the fall of 2017. IAE will continue to scout opportunistically for new *C. amoena* sites to add diversity to the field if possible. Originally, the PMC was going to grow this species; however, due to the loss of the PMC as a partner grower, this field will be grown at Heritage Seedlings, Inc., in the same location as a previously established field of a Willamette Valley accession of this species. We expect the first harvest of *C. amoena* in 2018.



Epilobium densiflorum

In 2016, the first harvest of the annual forb *E. densiflorum* (72 pounds) was received from a 0.1 acre field located at the PMC. Thirty pounds was reserved for future production and the rest was made available to Partnership members. In the fall of 2017 a one-acre field will be sown at Triangle Farms (TF). We expect the first harvest from this new field in 2018.



Juncus occidentalis

This existing field with Willamette Valley-wide genetics was planted in 2007 by IAE’s Native Seed Network (NSN) and adopted by the Partnership in 2013. A total of 154 pounds of seed was harvested from this field over three years (2013, 2014, and 2016). To date, approximately 74 pounds of seed has been distributed to partners, and there remains about 80 pounds available for future use. This is enough stockpiled seed to meet the Partnership member needs for the next several years. Consequently, the Partnership has elected to defer the re-establishment of this field.



Lomatium nudicaule

Plugs of *L. nudicaule* have been in production at the PMC for one year. Originally, these plants were to be transplanted into a field at the PMC in either the fall of 2016 or the spring of 2017. However, the plugs had not yet been planted when the changes at PMC occurred, and now they will be transplanted to the IAE farm in the fall of 2017 instead. The first harvest should be in 2018 or 2019.



Madia elegans

In 2016, a harvest of 31 pounds of this annual forb was received from a 0.2 acre field at the PMC. Some of this seed was reserved for the establishment of future production fields, and the rest was made available for distribution to partners. Thirty pounds of this species was distributed in 2016. A location for a new field of this important prairie nectar species has not yet been identified.



Plectritis congesta

A 0.4 acre field of this annual species was grown at the PMC in 2016. In order to minimize slug damage to newly emerging plants, this field was established with “mini plugs” that were transplanted to the field in the spring of 2016. Unfortunately, a few very warm weeks in the late winter triggered the early flowering of the container-grown plugs, resulting in poor establishment of the transplants and a lower yield than expected. We received a harvest of four pounds from the PMC field, and will use G1 seed along with some remaining wild seed to start a new field. The Partnership has not yet identified a new grower for this species.



Potentilla gracilis

This field was started in 2013, after only one seed collection year. Plugs for transplanting were started in the fall of 2013 and transplanted to a one-half acre field at Kenagy Family Farm (KFF) in the spring of 2014. Because of low germination of the seed from some source populations, new plants were started in the fall of 2014 for transplanting into an additional one-half acre section next to the first field, resulting in a total field size of one acre. In 2016, the first year of peak production, the Partnership received 264 pounds of seed from the field. It is expected that yields of this long-lived perennial will continue to rise over the next few years, then level off. To date, 333 pounds of *P. gracilis* have been distributed to partners.



Prunella vulgaris var. lanceolata

A seed increase field of 0.1 acre was started in the fall of 2014 at the PMC, and the first significant harvest of 19 pounds was received in 2016. We reserved five pounds for future fields and distributed 13.5 pounds to members of the Partnership. Also in the fall of 2014, wild collected seed (with similar genetics to that of the accession used to establish the Partnership's seed increase field) was donated to Kenagy Family Farms for the purpose of establishing a one-acre field grown for the open market. In return for the donated seed, KFF agreed to give the Partnership the option of purchasing some or all of the seed produced from the field before selling it commercially. In 2015, the Partnership purchased 61.5 pounds of *Prunella* seed from KFF and distributed it all to contributing partners. In 2016, the Partnership purchased 455 pounds of seed from KFF, reserved five pounds for future production, and distributed 134 pounds to members of the Partnership. Because we expect KFF to continue to maintain this field, for now the Partnership has decided to defer establishment of its own *P. vulgaris* var. *lanceolata* field and continue to exercise our option to purchase seed from the KFF field instead.



Ranunculus occidentalis

Mini-plugs of *R. occidentalis* were started in the fall of 2016 for transplanting to a 0.1-acre field at the IAE farm in the spring of 2017. We expect to receive our first harvest of this species in 2018.



Sidalcea campestris

Plugs for a *S. campestris* production field were started at the PMC in the fall of 2015 with the intention of outplanting in the spring of 2016. However, due to the loss of the PMC as a partner grower, in the spring of 2017 the plugs were transplanted to a 0.25 acre field at KFF instead. We expect the first harvest of *S. campestris* in 2017 or 2018.



Sidalcea malviflora ssp. virgata

Like *S. campestris*, plugs of this species were started in the fall of 2015 at the PMC. Instead of establishing a field of this species at the PMC as originally intended, these plugs will be outplanted to a 0.5 acre field at TF in the spring of 2017 at TF. We expect the first harvest of this species in 2017 or 2018.



Solidago lepida var. salebrosa

Plugs of this perennial forb were started at the PMC in the fall of 2013 and transplanted to a field at PMC in the spring of 2014. This field will be maintained at the PMC through 2017 (through an extension of an existing NRCS-USFWS agreement). The Partnership received a harvest of 12 pounds in 2015 and 15 pounds in 2016. A portion of these harvests was reserved for future production, and the rest was made available for distribution to the Partnership. To date, a total of 11 pounds of this species has been distributed to partners. In 2017, a new field of this species will be established at the IAE farm using the reserved G1 seed. We expect the first harvest from the newly established field in 2019.



Symphyotrichum hallii

This field was also started by the NSN in 2007 and adopted by the Partnership in 2013. While yields from this field have generally been low, we are hopeful that a new field started with transplanted rhizomes will revive production and increase yields. This field will remain at the PMC through 2017, through an extension of an existing agreement between NRCS and USFWS. To date, 5.7 pounds of *S. hallii* have been distributed to partners. We plan to transplant rhizomes from the PMC to the IAE farm at the end of 2017.

TABLE 2. WILLAMETTE VALLEY NATIVE PLANT MATERIALS PARTNERSHIP 2016 PRODUCTION AND SEED YIELDS.

Species	Common Name	Field size (ac)	Producer*	First growing season	2016 yields (lbs)
<i>Achillea millefolium</i> var. <i>occidentalis</i>	western yarrow	0.25	PNN	2016	-
<i>Acmispon americanus</i>	Spanish clover	0.1	PNN	2015	-
<i>Camassia leichtlinii</i> var. <i>suksdorfii</i>	tall camas	1.0	PNN	2018*	-
<i>Camassia quamash</i> var. <i>maxima</i>	common camas	1.0	PNN	2018*	-
<i>Carex tumulicola</i>	foothill sedge	0.1	PMC/IAE	2015	-
<i>Clarkia amoena</i>	farewell-to-spring	0.1	HER	2018	-
<i>Epilobium densiflorum</i>	dense spikerose	0.1	PMC/TF	2016	72
<i>Eriophyllum lanatum</i>	Oregon sunshine	0.75-1.0	TF	2018	-
<i>Juncus occidentalis</i>	western rush	0.15	PMC/TBD	2007	29
<i>Lomatium nudicaule</i>	barestem lomatium	0.2	PMC/IAE	2016	-
<i>Madia elegans</i>	common tarweed	0.2	PMC/TBD	2016	31
<i>Plectritis congesta</i>	rosy seablush	0.4	PMC/TBD	2016	3
<i>Potentilla gracilis</i>	slender cinquefoil	1.0	KFF	2014	264
<i>Prunella vulgaris</i> var. <i>lanceolate</i>	self-heal	0.1	PMC	2015	14
<i>Prunella vulgaris</i> var. <i>lanceolate</i>	self-heal	1.0	KFF	2015	455
<i>Ranunculus occidentalis</i>	western buttercup	0.1	IAE	2017	-
<i>Sidalcea campestris</i>	meadow checkermallow	0.25	KFF	2016	-
<i>Sidalcea malviflora</i> ssp. <i>virgata</i>	rose checkermallow	0.5	TF	2016	-
<i>Solidago lepida</i> var. <i>salebrosa</i>	western goldenrod	0.15	PMC/IAE	2014	15
<i>Symphyotrichum hallii</i>	Hall's aster	0.25	PMC/IAE	2007	-

*IAE=IAE Farm, HER=Heritage Seedlings, KFF=Kenagy Family Farm, PMC=Plant Materials Center, PNN=Pacific Northwest Natives, TF=Triangle Farm, TBD=To Be Determined. Where two producers are listed, the second is the new location for transitioned PMC fields.

Seed distribution

The Partnership began distributing seed to its members in 2014. Since then, over 900 pounds of seed have been distributed to eight partners. In 2016, the first large harvests of seed were available for distribution, requiring the Steering Committee to develop a process for ensuring equitable distribution of the seed to the membership. The general membership approved the following process at its meeting in November of 2016: Seventy percent of each year’s yields will be used to pay back contributing partners until this debt is discharged. The contributing partner’s 70% will be distributed proportionately according to the cumulative percentage of overall contributions provided by that partner. For example, if Partner A contributed 10% of the total contributions to date, they would receive 10% of 70%, or 14%, of that year’s yields. Thirty percent of each year’s yields will be made available to all other partners for purchase on a first come, first serve basis. Once the debt to contributing partners is discharged, 100% of seed yields will be available to all Partnership members for purchase on a first come, first serve basis. See Appendix E for an example of the WVNPM seed order form.

To date, approximately 53% of partner-contributed funds must be paid back to contributing partners through the receipt of Partnership-produced seed. As of the end of 2016, \$97,084 worth of seed (38% of the total debt) has been repaid. Excluding additional future contributions from partners, approximately \$160,000 of debt still remains. It is anticipated that all contributing partners will be paid back by 2018. See Table 7 in the Financial Summary section for a summary of the amounts and value of seed distributed to partners to date.

Seed storage

Wild collected seed is stored in a temperature and humidity-controlled seed cooler pending being used to establish production fields. Production field yields that are not distributed to partners are stored in a temperature and humidity controlled seed cooler at Finley National Wildlife Refuge. The Partnership will not have access to the PMC cooler after 2017, and will have to develop alternative seed storage options.

Seed inventory

At the end of 2016, the Partnership had not distributed all of the available seed to partners, and some seed remained in its inventory. Table 3 summarizes the seed currently in the Partnership’s inventory. Partners are welcome to place orders for inventoried seed at any time during the year.

TABLE 3. SUMMARY OF WILLAMETTE VALLEY NATIVE PLANT MATERIALS PARTNERSHIP SEED INVENTORY AS OF DECEMBER 31, 2016.

Species	Amount available (lbs)
<i>Epilobium densiflorum</i>	1.5
<i>Juncus occidentalis</i>	75.8
<i>Madia elegans</i>	0
<i>Potentilla gracilis</i>	72.3
<i>Prunella vulgaris</i> var. <i>lanceolata</i>	321.3
<i>Solidago lepida</i> var. <i>salebrosa</i>	6.3
<i>Symphotrichum hallii</i>	0
Total	477.2

FINANCIAL SUMMARY

In 2016, the Partnership finalized a plan for transitioning from funding operations through partner contributions to funding operations through income from seed sales to partners. The Steering Committee anticipates the Partnership reaching self-sustainability within the next three years (by the end of 2019).

Since the Partnership’s inception in 2012, almost half a million dollars has been contributed by the following partners: Army Corps of Engineers (ACOE, \$50,000), the Bureau of Land Management (BLM, \$86,324), IAE (\$39,423), Metro (\$20,000), the Oregon Department of Fish and Wildlife (ODFW, \$10,000), The Nature Conservancy (TNC, \$135,000), and U.S. Fish and Wildlife Service (USFWS, \$142,000).

2016 WVNPMP income

In 2016, the Partnership received \$49,000 in new partner contributions. Combined with the \$67,833 of previously contributed funds carried over from 2015, a total of \$116,833 was available for supporting Partnership operating costs in 2016. See Table 3 for a summary of the sources of available funds in 2016. Although partners did purchase seed in the fall of 2016, they were not invoiced until the end of that year, and the income from those seed sales was not available to support 2016 operations. Consequently, income from 2016 seed sales will be recorded as 2017 income.

TABLE 4. SUMMARY OF FUNDS AVAILABLE FOR 2016 WILLAMETTE VALLEY NATIVE PLANT MATERIALS PARTNERSHIP OPERATIONS.

Income source	2016 Amount
Metro	\$ 20,000
ODFW	\$ 5,000
USACE	\$ 20,000
USFWS	\$ 4,000
2015 Carryover funds	\$ 67,833
Total	\$ 116,833

2016 WVNPMP expenses

See Table 4 for a breakdown of Partnership spending in 2016. In 2016, there were several adjustments from the original projected budget for this year. Due to funding uncertainty and undetermined PMC transition costs, the Partnership decided to hire a smaller seed collection crew (reduced from the size of previous years’ crews) and consequently collected fewer species from fewer sites. In addition, production costs were lower than projected due to delaying the establishment of two new fields and field failure of a third field (only part of the expected field costs was invoiced for the failed field). See Appendix F for a breakdown of 2016 expenses by activity.

TABLE 5. SUMMARY OF WILLAMETTE VALLEY NATIVE PLANT MATERIALS PARTNERSHIP 2016 EXPENSES.

Expense category	2016 Amount
Program management and coordination	\$ 21,826
Seed collection	\$ 27,952
Production	\$ 42,598
Total expenses	\$ 92,376

TABLE 6. SUMMARY OF WILLAMETTE VALLEY NATIVE PLANT MATERIALS PARTNERSHIP 2016 BUDGET SURPLUS

2016	2017 Amount
2016 funding	\$ 116,833
2016 expenses	\$ 92,376
2016 funding surplus	\$ 24,457

2016 contributing partner payback

Three partners (IAE, Metro, and ODFW) have forgiven 100% of their contributions to date. The rest of, contributing partners must be paid back for at least a portion of their contributions. In 2016, the Partnership disbursed 70% of the total yields produced that year, or 287.7 pounds of seed, to four contributing partners (Table 6). This seed was divided among these partners in proportion to their overall contributions to the Partnership, taking into consideration their required payback percentages.

TABLE 7. 2016 PAYBACK OF SEED TO WILLAMETTE VALLEY NATIVE PLANT MATERIALS PARTNERSHIP CONTRIBUTING PARTNERS.

Species	ACOE	BLM	TNC	USFWS
<i>Epilobium densiflorum</i>	8.7 lbs	15.0 lbs	--	26.7 lbs
<i>Juncus occidentalis</i>	6.3 lbs	5.0 lbs	--	--
<i>Madia elegans</i>	3.0 lbs	5.1 lbs	7.0 lbs	7.9 lbs
<i>Potentilla gracilis</i>	30.8 lbs	52.9 lbs	--	94.1 lbs
<i>Prunella vulgaris</i> var. <i>lanceolata</i>	2.2 lbs	3.8 lbs	--	7.9 lbs
<i>Solidago lepida</i> var. <i>salebrosa</i>	1.5 lbs	2.5 lbs	2.3 lbs	4.4 lbs
<i>Symphyotrichum hallii</i>	0.1 lbs	0.1 lbs	0.2 lbs	0.2 lbs
Totals	52.6 lbs	84.4 lbs	9.5 lbs	141.2 lbs

2016 seed sales

The remaining 30% of 2016 yields was made available for purchase by any partner. A further 207.2 pounds of seed was sold to partners, generating \$21,785 in income for the Partnership (Table 6). See Appendix E for the Partnership seed order form and current inventory and prices.

TABLE 8. SUMMARY OF WILLAMETTE VALLEY NATIVE PLANT MATERIALS PARTNERSHIP 2016 SEED SALES.

Species	Amount (lbs)	Value (\$)
<i>Epilobium densiflorum</i>	5	\$ 920
<i>Juncus occidentalis</i>	9.0	\$ 414
<i>Madia elegans</i>	6.6	\$ 2,812
<i>Potentilla gracilis</i>	46.3	\$ 5,788
<i>Prunella vulgaris</i> var. <i>lanceolata</i>	131	\$ 11,790
<i>Solidago lepida</i> var. <i>salebrosa</i>	0.34	\$ 289
<i>Symphyotrichum hallii</i>	0.11	\$ 218
Total	198.4	\$ 22,231

2017 projected budget

At the time of this report’s completion, the Partnership anticipates have \$110,926 available to fund 2017 operations. This funding comes from several different sources (Table 8). In 2016, the Partnership’s available funds exceeded expenses, leaving a balance of \$24,457 available to be carried forward into 2017. IAE also has secured a grant for \$37,238 from the BLM’s Northwest Oregon Resource Advisory Council. Partners are expected to contribute another \$27,000 in 2017. Finally, the Partnership generated \$22,23 in seed sales in 2016.

TABLE 9. WILLAMETTE VALLEY NATIVE PLANT MATERIALS PARTNERSHIP 2017 AVAILABLE FUNDS.

Source of 2017 funds	Amount (\$)
BLM	\$ 12,000*
ODFW	\$ 5,000*
ACOE	\$ 10,000*
2017 Grant funding	\$ 37,238
2016 Seed sales	\$ 22,231
2016 Funds	\$ 24,457
Total	\$ 110,926

*Pending

Projected expenses for 2017 total \$116,725, leaving approximately \$5,799 still to be secured for 2017. Table 9 breaks down the projected 2017 expenses into three categories: program management and coordination, seed collection, and plant materials production. Table 10 summarizes the difference between the Partnership’s projected available funds and expenses in 2017.

Because of budgetary constraints, the Partnership decided to suspend seed collection in 2017 and focus on developing a new strategic plan, maintaining current production fields, adding at least three new fields, and building up income from seed sales. We anticipate resuming seed collection activities in 2018

or 2019.

TABLE 10. SUMMARY OF WILLAMETTE VALLEY NATIVE PLANT MATERIALS PARTNERSHIP 2017 PROJECTED EXPENSES

Expense category	2017 amount
Program management and coordination	\$ 56,700
Seed collection*	\$ 0
Production	\$ 60,025
Total expenses	\$ 116,725

* There is no seed collection planned for 2017.

TABLE 11. SUMMARY OF WILLAMETTE VALLEY NATIVE PLANT MATERIALS PARTNERSHIP 2017 FUNDING GAP

2017 projected budget	2017 amount
2017 funding available	\$ 110,926
2017 projected expenses	\$ 116,725
2017 projected funding gap	\$5,799

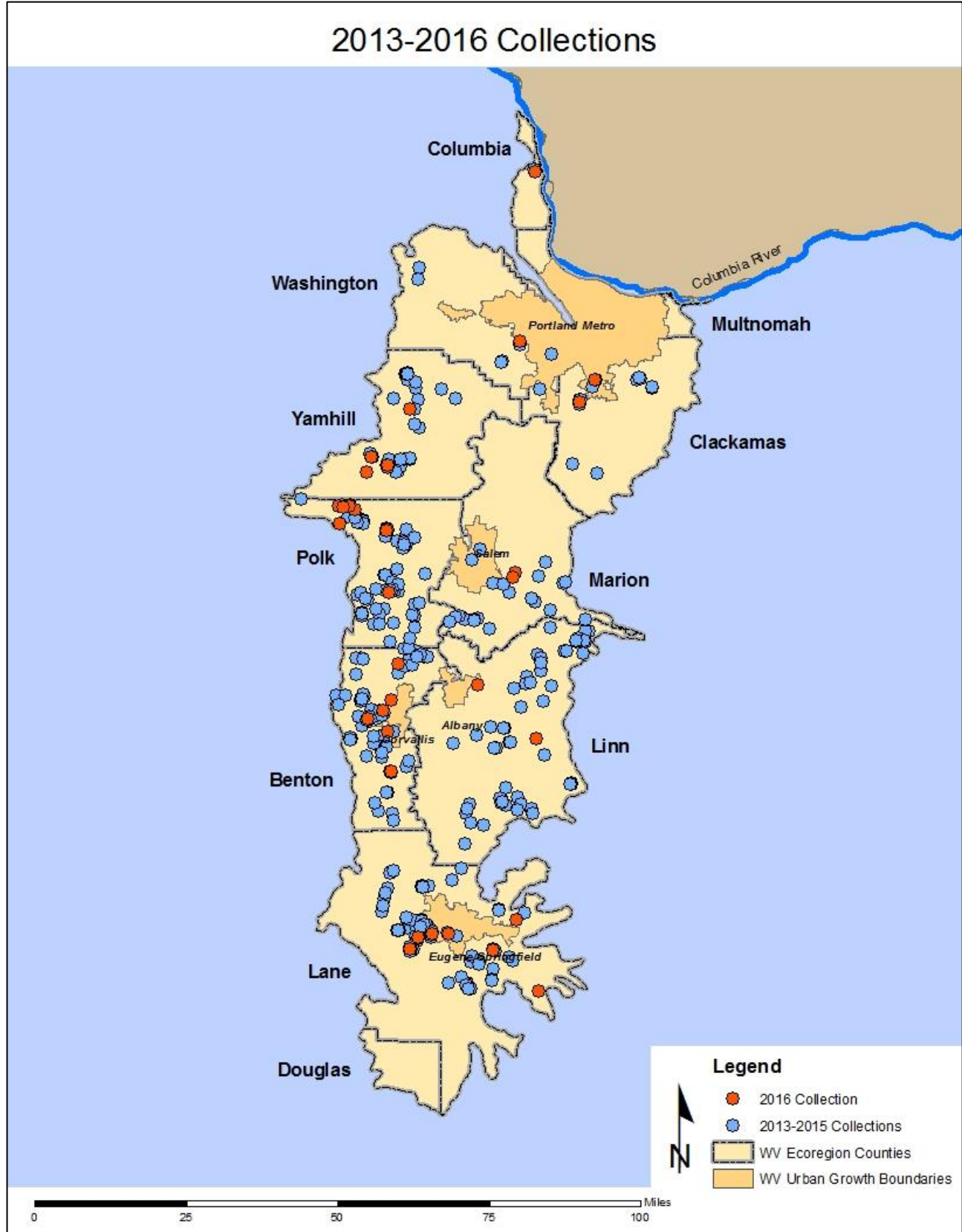
NEXT STEPS

1. Develop new WVNPMMP strategic plan for 2018-2020, to be finalized by November 2017.
2. Update the WVNPMMP partner Memorandum of Understanding to reflect any changes in structure and/or common goals and collect partner signatures
3. Create a Marketing Committee to help increase awareness of the Partnership and the value of high quality native seed.
4. Maintain existing seed production fields.
5. Put 2-3 new species into production.
6. Locate or create a new seed storage facility by the end of 2017.
7. Expand WVNPMMP membership; add at least one new partner.
8. Begin 2017 seed ordering process in June of 2017. Provide projected species availability to partners as early as possible.
9. Disburse 70% of the 2017 seed harvest to contributing partners.
10. Sell 30% of 2017 seed harvest and as much inventoried seed as possible to all partners.
11. Develop an online seed ordering form.
12. Write and post at least two blogs on the WVNPMMP webpage.

REFERENCES

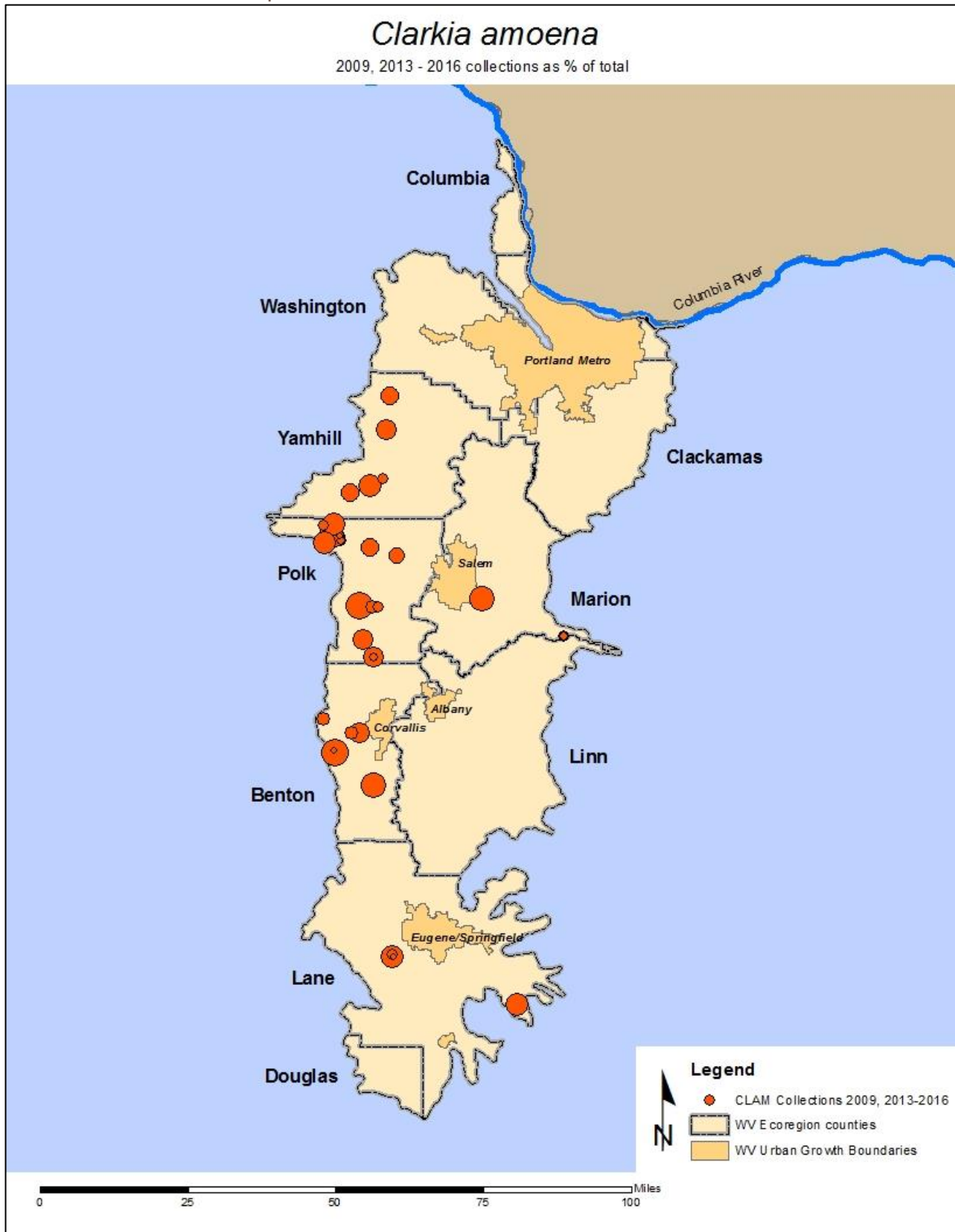
Getty, J.R. 2013. Willamette Valley Native Plant Materials Partnership: Strategic Plan 2013-2017. Prepared for the Willamette Valley Native Plant Materials Partnership. Institute for Applied Ecology, Corvallis, Oregon.

APPENDIX A: 2013-2016 COLLECTION MAP.

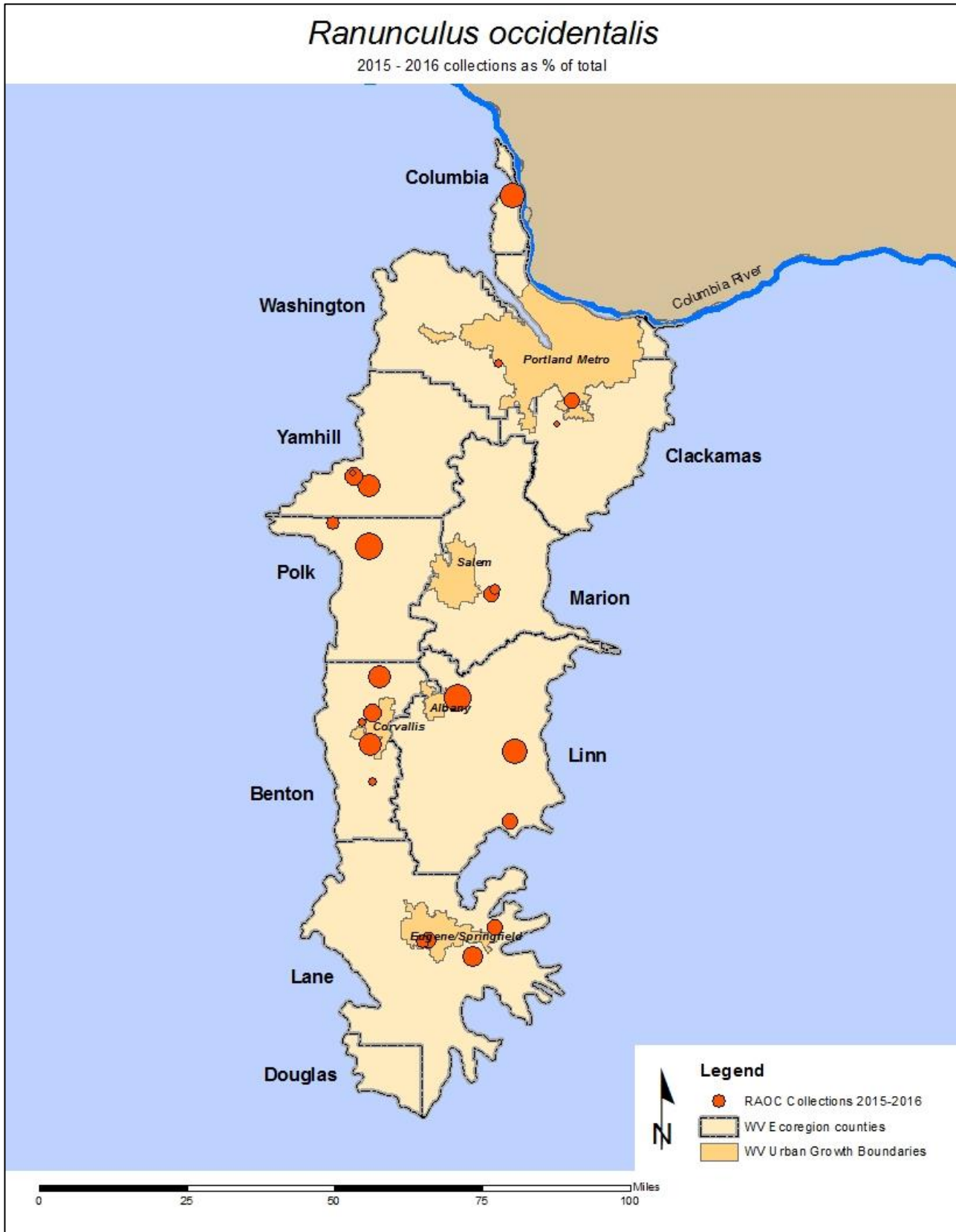


APPENDIX B. WILD COLLECTIONS OF 2017-2018 PRODUCTION SPECIES.

Dot size is a function of the percent contribution of each site to the total collected.







APPENDIX C: 2013-2016 SEED COLLECTION SUMMARY.

Scientific Name	Common Name	Number of collection sites				Amount collected (pounds unless otherwise noted)				Production started
		2013	2014	2015	2016	2013	2014	2015	2016	
<i>Achillea millefolium</i> var. <i>occidentalis</i>	western yarrow	3	16	2	-	0.06	0.19	0.35	-	2015
<i>Acmispon americanus</i>	Spanish clover	15	34	-	-	1.4	8.3	-	-	2014
<i>Allium amplexans</i>	narrowleaf onion	-	-	18	7	-	-	0.11	0.17	2017?
<i>Camassia leichtlinii</i> var. <i>suksdorfii</i>	tall camas	-	20	44	-	-	3.8	5.1	-	*2016
<i>Camassia quamash</i> var. <i>maxima</i>	common camas	-	15	28	-	-	3.8	3.2	-	*2016
<i>Carex tumulicola</i>	foothill sedge	11	17	-	-	0.35	1.8	-	-	2014
<i>Clarkia amoena</i> var. <i>lindleyi</i>	farewell-to-spring	2	11	21	12	3 g	0.36	0.27	0.26	2017
<i>Danthonia californica</i>	California oatgrass	7	20	24	2	0.22	1.8	0.52	0.25	2018?
<i>Deschampsia cespitosa</i>	tufted hairgrass	-	-	18	-	-	-	1.8	-	2018?
<i>Dichanthelium acuminatum</i>	western witchgrass	-	-	2	-	-	-	1.5 g	-	2018?
<i>Epilobium densiflorum</i>	dense spikerose	-	-	48	-	-	-	4.4	-	2015
<i>Eriophyllum lanatum</i>	woolly sunflower	-	25	-	1	-	1.5	-	0.01	2017
<i>Lomatium nudicaule</i>	barestem biscuitroot	4	16	13	-	1.9	2.1	1.4	-	2015
<i>Madia elegans</i>	common madia	-	11	6	-	-	0.5	0.17	-	2015
<i>Plectritis congesta</i>	rosy seablush	4	9	11	-	0.05	0.5	0.36	-	2015
<i>Potentilla gracilis</i>	slender cinquefoil	14	24	-	-	1.2	1.2	-	-	2013+14
<i>Prunella vulgaris</i> var. <i>lanceolata</i>	self-heal	19	28	-	-	1.1	4.7	-	-	2014
<i>Ranunculus occidentalis</i>	western buttercup	-	-	20	17	-	-	0.42	1.63	2017
<i>Sidalcea campestris</i>	meadow checkermallow	7	26	35	-	5.5	1.9	0.64	-	2015
<i>Sidalcea malviflora</i> ssp. <i>virgata</i>	dwarf checkermallow	7	22	38	-	0.1	0.6	0.36	-	2015
<i>Solidago lepida</i> var. <i>salebrosa</i>	western goldenrod	12	-	-	-	0.5	-	-	-	2013
<i>Wyethia angustifolia</i>	narrowleaf mules ears	-	-	-	2	-	-	-	3.3	2018

APPENDIX D: 2013-2016 PRODUCTION AND YIELDS SUMMARY.

Species	Common Name	Field size (ac)	Producer	Production started	Yields (lbs)			
					2013	2014	2015	2016
<i>Juncus occidentalis</i>	western rush	0.15	PMC	2007	42	83	-	29
<i>Symphotrichum hallii</i>	Hall's aster	0.25	PMC	2007	5	-	0.67	-
<i>Potentilla gracilis</i>	slender cinquefoil	1.0	KFF	2013	-	-	115	264
<i>Solidago lepida</i> var. <i>salebrosa</i>	western goldenrod	0.15	PMC	2013	-	-	12	15
<i>Acmispon americanus</i>	Spanish clover	0.1	PNN	2014	-	-	30	-
<i>Carex tumulicola</i>	foothill sedge	0.1	PMC	2014	-	-	-	-
<i>Prunella vulgaris</i> var. <i>lanceolata</i>	self-heal	0.1	PMC	2014	-	-	-	19
<i>Prunella vulgaris</i> var. <i>lanceolata</i>	self-heal	1.0	KFF	2014	-	-	61.5	455
<i>Achillea millefolium</i> var. <i>occidentalis</i>	western yarrow	0.25	PNN	2015	-	-	-	-
<i>Epilobium densiflorum</i>	dense spikerose	0.1	PMC	2015	-	-	-	72
<i>Lomatium nudicaule</i>	barestem lomatium	0.2	PMC	2015	-	-	-	-
<i>Plectritis congesta</i>	rosy seablush	0.4	PMC	2015	-	-	-	3
<i>Sidalcea campestris</i>	meadow checkermallow	0.25	KFF	2015	-	-	-	-
<i>Sidalcea malviflora</i> ssp. <i>virgata</i>	rose checkermallow	0.5	TF	2015	-	-	-	-
<i>Madia elegans</i>	common tarweed	0.2	PMC	2016	-	-	-	31
<i>Camassia leichtlinii</i> var. <i>suksdorfii</i>	tall camas	1.0	PNN	2017*	-	-	-	-
<i>Camassia quamash</i> var. <i>maxima</i>	common camas	1.0	PNN	2017*	-	-	-	-
<i>Clarkia amoena</i>	farewell-to-spring	TBD	TBD	2017	-	-	-	-
<i>Eriophyllum lanatum</i>	Oregon sunshine	TBD	KFF	2017	-	-	-	-
<i>Ranunculus occidentalis</i>	western buttercup	TBD	IAE	2017	-	-	-	-

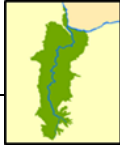
APPENDIX E: WVNPMP SEED ORDER FORM



Conserving native species and habitats through restoration, research, and education

563 SW Jefferson Ave
Corvallis, OR 97333
www.appliedeco.org

Phone: 541-753-3099
Fax: 541-753-3098



Willamette Valley Native Plant Materials Partnership 2016 Seed inventory & Pricing

BILL TO:

Organization			
Contact			
Address			
City/State/Zip Code			
Phone/Fax			

ORDER DATE:

SHIP DATE:

NOTES & INSTRUCTIONS:

SHIP TO: *(if a different address)*

Organization			
Contact			
Address			
City/State/Zip Code			
Phone/Fax			

Species Name	Common Name	Price/lb	Price/oz	Amount available	Amount Lbs/oz ordered	Cost	Would buy more if available (X)
<i>Epilobium densiflorum</i>	dense spikerose	\$184		1.5 lbs		\$0.00	
<i>Juncus occidentalis</i>	western rush	\$46		75.8 lbs		\$0.00	
<i>Madia elegans</i>	showy tarweed	\$426		0 lbs		\$0.00	
<i>Potentilla gracilis</i>	slender cinquefoil	\$125		72.3 lbs		\$0.00	
<i>Prunella vulgaris</i> var. lanceolata	lance self-heal	\$90		321.3 lbs		\$0.00	
<i>Solidago lepida</i> var. salebrosa	western goldenrod	\$849		6.3 lbs		\$0.00	
<i>Symphotrichum hallii</i>	Hall's aster	\$1,978		0 lbs		\$0.00	
<i>Order subtotal</i>						\$0.00	
<i>Shipping</i>						\$0.00	
<i>Total</i>						\$0.00	

TO ORDER:

Enter the number of pounds or ounces of each species you would like to order to the oz or 0.1 lb. If you would order more than what is available, please put an "X" in the last column.

Shipping charges will be applied at order confirmation.

Orders will be processed on a first-come-first-served basis.

Return this form electronically to Jenny Getty (jenny@appliedeco.org or fax to 541-753-3098).

SEEDS PER POUND*:

<i>Epilobium densiflorum</i>	dense spikerose	850,690
<i>Juncus occidentalis</i>	western rush	20,000,000
<i>Madia elegans</i>	showy tarweed	213,140
<i>Potentilla gracilis</i>	slender cinquefoil	1,417,460
<i>Prunella vulgaris</i> var. lanceolata	lance self-heal	400,220
<i>Solidago lepida</i> var. salebrosa	western goldenrod	4,600,000
<i>Symphotrichum hallii</i>	Hall's aster	1,799,960

*from Heritage Seedlings, Inc.

APPENDIX F: 2016 EXPENDITURES BY ACTIVITY

Expenditures of each contributing partner are in proportion to their total contribution: ACOE (10%), BLM (18%), IAE (8%), Metro (4%), ODFW (2%), TNC (28%), and USFWS (29%).

Project Activity	Contract	In-house	Total
Program management and coordination		\$6,060	\$6,060
Project activities			
Scouting, collection & cleaning		\$26,663	\$26,663
Field inspections		\$626	\$626
Sustainability model		\$1,643	\$1,643
Report writing		\$782	\$782
Meetings		\$971	\$971
Supplies		\$17	\$17
Production	\$35,205		\$35,205
Travel		\$4,377	\$4,377
Admin		\$16,032	\$16,032
Total	\$35,205	\$57,171	\$92,376