

Draft 10-23-12

Surface Use Plan of Operations Procedure

(SUPO Procedure)

The Farmington Field Office (FFO) established procedures to define office specific expectations for a complete application for permit to drill (APD) related to Onshore Order #1, III.D.4, Surface Use Plan of Operations (SUPO), parts 2 (b) New or Reconstructed Access Roads, 2 (d) Location of Existing and/or Proposed Production Facilities, and 2 (j) Plans for Surface Reclamation, Parts: Seeding or other steps to reestablish vegetation, weed control, and vegetation final reclamation. The procedures apply to all actions proposed in the APD application and authorized by the FFO including the well pad, access road, and the well tie pipeline if owned by the operator. All other procedures and practices established by the FFO related to the APD application process remain unchanged.

The intent of the SUPO Procedure is to provide guidelines regarding the development and submittal of site-specific road, facility, and revegetation plans to be incorporated into the SUPO. This procedure provides the minimum information and operation standards that the FFO expects to be incorporated into the SUPO site-specific revegetation plans at the level of detail necessary for the FFO to assess the technical adequacy and Resource Management Plan (RMP) conformance of revegetation practices proposed by an operator.

The diversity of site characteristics (i.e., elevation, topography, precipitation, and soil type) that exists across the 1.4 million acres within the FFO favors a performance-based approach to revegetation rather than a one-size fits-all procedure-based approach. The FFO developed revegetation standards that are specific to the FFO and are intended to complement current revegetation guidance found in the “Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development” (The Gold Book) and other FFO policy and guidance.

All surface disturbing activities approved by the APD process on the FFO lands administered by the FFO will be subject to the FFO Reclamation and Rehabilitation Procedure. It is important to note that the revegetation criteria expressed in FFO Reclamation and Rehabilitation Procedure are considered standards. However, the authorized officer (AO) may modify standards depending on site-specific reclamation challenges (i.e., physical or biological constraints beyond the operator’s control). The FFO will consider authorizing well-designed revegetation experiments and trials outside established strategies that may serve as the basis for enhancing revegetation efficacy or efficiency consistent with the FFO’s revegetation standards. The FFO will consider authorizing alternative vegetation reclamation standards developed from reference areas proposed by the operator. All reference areas proposed to FFO for authorization must be developed by the operator according to BLM accepted Technical References and Instruction Memorandums, or accepted protocols developed by the National Resource Conservation Service (NRCS), the Society for Ecological Reclamation (SER), or other nationally accepted protocols for the establishment of reference areas.

42 The operator is not responsible for achieving full ecological reclamation of a well pad site.
43 Instead, the operator is responsible for achieving the short-term stability, visual, hydrological, and
44 productivity objectives of the FFO. The performance-based revegetation standards focus on using
45 the desired end condition as the ultimate determinant of the level of vegetation productivity
46 acceptable to the FFO. The attainment of the vegetation per cent cover standards will fulfill the
47 productivity objective of FFO and contribute to the stability of the site. If monitoring documents
48 significant erosion problems or other hydrological issues with the pad, the operator may be
49 required to address those issues even after the vegetation per cent cover standards have been
50 attained.

51
52 The FFO makes no distinction between interim and final revegetation processes; the revegetation
53 processes are the same for all revegetation activities. The revegetation standards are habitat
54 specific and will be adhered to unless a written exception is granted by the AO. There are
55 numerous other sources of guidance (e.g., Best Management Practices) to aid operators in
56 attaining the revegetation standards.

57
58 **Authority**

59
60 The FFO is required by law to ensure that authorized actions are carried out in a manner that does
61 not result in “permanent impairment of the productivity of the land or the quality of the
62 environment” (Federal Land Policy and Management Act [FLPMA], 1976). In order to promote a
63 consistent and science-based approach to reclamation, this protocol identifies minimum
64 information and operational requirements and performance-based criteria that are expected to
65 satisfy the FFO’s responsibilities under FLPMA.

66
67 The Mineral Leasing Act (MLA) of 1920 (30 U.S.C. § 181-287), amended by the Federal
68 Onshore Oil and Gas Leasing Reform Act of 1987, PL 100-203, among other things, authorizes
69 the Secretary of Interior to regulate all surface-disturbing activities associated with any lease and
70 to impose mitigation and reclamation measures in order to “conserve surface resources.”

71
72 The FFO 2003 Record of Decision/Resource Management Plan (ROD/RMP) specifies that
73 industry is expected to fully comply with the surface protection and hazard reduction aspects of
74 appropriate Onshore Orders, as well as conditions of approval (COAs) and Standard Stipulations.

75
76 BLM regulations established in 43 C.F.R. §3160 (i.e., Onshore Oil and Gas Order Number 1)
77 require that a reclamation plan be submitted with the Surface Use Plan in the Application for
78 Permit to Drill (APD). The Onshore Order Number 1, Section XII. B., in referencing Section
79 III.D.4 (j), requires that surface reclamation plans must be designed to return the disturbed areas
80 to productive use and meet the objectives of the RMP.

81 BLM Regulations established in 43 C.F.R. §3162.3-1(f). The surface use plan of operations shall
82 contain information specified in applicable orders or notices, including the road and drillpad
83 location, details of pad construction, methods for containment and disposal of waste material,
84 plans for reclamation of the surface, and other pertinent data as the authorized officer may
85 require. A surface use plan of operations may be submitted for a single well or for several wells
86 proposed to be drilled in an area of environmental similarity.

87 **Part 2 (b) New or Reconstructed Access Roads**

88 During the onsite inspection, the FFO and the operator, or the operator’s representative (operator)
89 will collaboratively determine if the intended use of a proposed newly constructed or
90 reconstructed road is a resource road, local road, or collector road as defined in the Surface
91 Operating Standards and Guidelines for Oil and Gas Exploration and Development, 2007 (Gold
92 Book). The operator will design the proposed road construction following the Basic Design
93 Requirements for Constructed Roads from the Gold Book. The operator will follow guidelines
94 from Onshore Order #1, Surface Use Plan of Operations, 2 (b), and submit to the FFO all the
95 information required by section 2 (b). As referenced in the Gold Book (Road Maintenance), the
96 operator will submit a road maintenance plan for proposed newly constructed or reconstructed
97 roads. The maintenance plan will include an inspection schedule that establishes how often the
98 operator will inspect the road, who the operator will utilize to inspect the road, and how road
99 inspections are documented. The maintenance plan will include the operator’s general procedures
100 to correct or repair the roadway and ineffective water control structures such as culverts, ditches,
101 silt traps, road crowns, or other site specific water control structures.

102

103 **Part 2 (d) Location of Existing and/or Proposed Production Facilities**

104

105 The operator is required to submit a map or diagram of facilities planned either on or off the well
106 pad that shows, to the extent known or anticipated, the location of all production facilities and
107 lines likely to be installed if the well is successfully completed. If the operator has not developed
108 information regarding production facilities, it may defer submission of that information until a
109 production well is completed, in which case the operator will follow the procedures in Section
110 VIII of Onshore Order #1.

111

112 The operator will have the option to include a delineation of the anticipated well pad working area
113 on the map or diagram submitted either with the application for permit to drill (APD), or with
114 form 3160-5 in accordance with section VIII of Onshore Order #1, subject to approval by the
115 FFO. The delineated working area will be used to determine the FFO Reclamation Plan
116 requirements that apply to subsequent ground disturbing activities during the life of the well. The
117 FFO considers the working area to include sufficient level areas routinely used by the operator
118 and service workers to operate and maintain the well facilities, and level areas needed for a
119 workover rig and to park equipment (Gold Book page 45). If the operator chooses not to
120 delineate a working area, the FFO will only acknowledge the area within the tear drop as the
121 working area.

122

123 **Part 2 (j) Plans for Surface Reclamation Parts: Seeding or other steps to reestablish**
124 **vegetation and weed control.**

125

126 FFO requires a Revegetation Plan to be submitted in the SUPO

127

128 The FFO Reclamation and Rehabilitation Procedure contains requirements for the revegetation of
129 disturbed lands and establishes standards for acceptable vegetation production, monitoring,
130 documentation, and reporting of monitoring data. The FFO specialists that developed the
131 Revegetation Procedure evaluated the diversity of habitats that are managed by the FFO and
132 condensed all of the approximately 24 potential plant community habitats into the 8 most
133 common vegetation communities. FFO completed a written narrative of each of the 8 vegetation
134 communities and posted the descriptions on the BLM State web page:
135 (http://www.FFO.gov/nm/st/en/fo/Farmington_Field_Office/ffo_planning/surface_use_plan_of.ht
136 [ml](http://www.FFO.gov/nm/st/en/fo/Farmington_Field_Office/ffo_planning/surface_use_plan_of.ht)). Each of the 8 vegetation community narratives contain a brief description of the vegetation
137 community, a revegetation productivity standard stated as per cent foliar cover, a menu based
138 seed pick list, and recommendations for effective reclamation.

139 The vegetation per cent cover standards were established with the goal that 95 out of 100 well
140 pads (95%) would have the biological potential to attain the standard if reasonable and prudent
141 best management practices were followed during the reclamation process. After implementation
142 of the SUPO Procedure, if data suggests that standards are not 95% biologically attainable after
143 reasonable reclamation efforts, FFO may adjust the standards. The exception process contained
144 within the SUPO Procedure will be followed for pads that may not have the biological potential to
145 attain the standard. The SUPO Procedure is a living document and other provisions of the SUPO
146 Procedure may be adjusted over time if data suggests that adjustments are needed.

147
148 The SUPO Revegetation Plan will refer to two procedures contained in the FFO Reclamation and
149 Rehabilitation Procedure:

- 150
- 151 • **Vegetation Reclamation Procedure A:** applies to areas authorized by an APD that are disturbed
152 to bare mineral soil in areas of less than one acre, but more than one tenth of an acre during the life
153 of the well; does not require monitoring
 - 154 • **Vegetation Reclamation Procedure B:** applies to areas authorized by an APD that are disturbed
155 to bare mineral soil in areas of one acre or larger; requires monitoring.

156 **Requirements to Initiate the Vegetation Reclamation Procedure A**

157
158 The Vegetation Reclamation Procedure refers to the revegetation of bare mineral soil areas that
159 are less than one acre in size, but greater than one tenth of an acre, resulting from any action
160 authorized by the APD include the plug and abandon process. The vegetation reclamation
161 procedure does not apply to areas approved by FFO as working areas necessary for the routine
162 long term operation of an authorized site that were not required to be reseeded during the initial
163 interim reclamation such as the tear drop, but do apply to working areas that were required to be
164 reseeded during the initial interim reclamation. The FFO considers the working area to include
165 areas routinely used by the operator and service workers to operate and maintain the well
166 facilities, and sufficient level areas for setup of a workover rig and to park equipment. Disturbed
167 areas less than one tenth of an acre are expected to revegetate naturally from seed sources
168 adjacent to the disturbance.

169
170

171 **Vegetation Reclamation Procedure A**

172
173 The operator will repair and reseed the area with the seed mix approved in the APD. The
174 proponent is not required to monitor the vegetation reclamation. FFO may visit the site after
175 completion of the vegetation reclamation and if FFO identifies negative impacts within the
176 vegetation reclamation area, the FFO may request a conference to analyze the issues that may
177 have contributed to vegetation reclamation failure, or lack of meaningful progress. The FFO may
178 request the proponent to submit a remedy plan to address lack of success or to repair damage to
179 vegetation reclamation areas.

180 **Requirements to Initiate Vegetation Reclamation Procedure B**

181 Any surface disturbing activity within the boundaries of the area authorized for use by the APD
182 during the life of the well including the plug and abandon process that results in bare mineral soil
183 in an area greater than or equal to one acre, not including the FFO approved working areas, will
184 require the operator to initiate the Vegetation Reclamation Procedure.

185 **Vegetation Reclamation Procedure B**

186 **Monitoring Responsibilities**

187 The operator is responsible for the following:

- 188
- 189 • Conduct annual monitoring starting two calendar years after approval of required
190 earthwork and/or seeding, and continuing until the vegetation percent cover standards
191 have been attained, or an exception has been issued by the FFO. The FFO monitoring
192 form will be completed and submitted to the FFO by December 31 of the year monitored.
 - 193 • Read the line point intercept transects in preparation to present documentation to FFO that
194 vegetation percent cover standards have been attained.
 - 195 • Request concurrence from the FFO that vegetation percent cover standards have been
196 attained.
 - 197 • Participate in conferences with the FFO and other effected parties to analyze issues
198 contributing to unsuccessful reclamation. Participate in the implementation of remedial
199 actions developed during the conference process as necessary.
 - 200 • Conduct long term monitoring after vegetation percent cover standards have been attained
201 during the life of the well.
 - 202 • The operator is responsible for all areas authorized by the APD until the operator transfers
203 the permit, or abandons the project and obtains a Final Abandonment Notice (FAN) from
the FFO.

204 The FFO is responsible for the following:

- 205
- 206 • Establishing monitoring sites in collaboration with the operator during the required
207 earthwork and/or seeding inspection, and submit to the operator the initial monitoring
report within 60 days of earthwork and/or seeding inspection approval.

- 208 • Evaluate annual monitoring reports submitted by the operator, and acknowledging to the
209 operator that the reports have been received and evaluated within 60 days after received
210 from the operator.
- 211 • Providing concurrence (or not) to the operator that the vegetation percent cover standards
212 have been attained, and rational for the determination within 60 days of receiving the
213 request for concurrence.
- 214 • Participate in conferences with the operator and other effected parties to analyze issues
215 contributing to unsuccessful reclamation. Participate in the implementation of remedial
216 actions developed during the conference process as necessary.

217 **Monitoring**

218 Monitoring will consist of both qualitative and quantitative methods and includes photo points
219 and line point intercept transects (transects). Monitoring applies to all actions proposed in the
220 APD application and authorized by the FFO that results in one acre or more, and may include the
221 well pad, access road, and the well tie pipeline if owned by the operator.

222 Photo Points

223 Photo point monitoring will be conducted on the well pad, access road, and the well tie pipeline if
224 the well tie pipeline is owned by the operator. The FFO will utilize global positioning system
225 (GPS) to establish the location of all required photo points in NAD 83 Lat/ Long during the
226 earthwork and seeding inspection process. When the operator conducts required photo point
227 monitoring, the operator will use a GPS unit to return to the photo points as needed. After
228 locating the photo point, the operator will reference the initial monitoring report submitted to the
229 operator by FFO and take photos in the same direction as indicated in the initial monitoring
230 report. The photos will be taken by a digital camera with 12 megapixel capability or of sufficient
231 quality to produce an image that vegetation can be adequately analyzed by FFO. If the quality of
232 the photo point monitoring presented the FFO is not good enough for a reasonable evaluation,
233 FFO may reject the photo point monitoring and require resubmission.

234 Line Point Intercept Transects

235 The establishment line point intercept transects (transects) is required. Line point intercept
236 transects will be permanently marked by the operator by any means acceptable to the operator that
237 insures that the operator or FFO personnel can return to within one foot of the original transect
238 location. The intent of the transects is to document the per cent foliar vegetative cover. The
239 percent foliar vegetative cover data determined by reading the transects will be utilized to
240 quantitatively document that the per cent foliar cover vegetation standards have been attained.
241 The transects will only be read in preparation to submit a request to FFO for concurrence that
242 vegetation percent cover standards have been attained.

243 Two transects will be established on the well pad collaboratively by FFO and the operator during
244 the earth work inspection process. When reading the transects, all rooted vegetation will be
245 recorded and could be alive, dormant, or dead. Dormant or dead vegetation must be firmly rooted
246 in the ground to be recorded. Rooted vegetation will be recorded as desirable or undesirable. The
247 FFO has compiled a list of undesirable plants and has attached the list to the line point intercept

248 transect form (appendix A). The total per cent vegetation score for the transect may include up to
249 10 per cent undesirable species. If any plants listed on the state of New Mexico noxious weed
250 lists A or B as updated by the state are documented on the pad, the operator must contact the FFO
251 weed coordinator for instructions to control the noxious weeds.

252 The individual scores for each well pad line point intercept transect will be averaged together to
253 arrive at an overall score for the pad. Additional transects may be established collaborative by
254 FFO and the operator on the well tie pipeline if the well tie pipeline is owned by the operator. If
255 more than one transect is established on a well tie pipeline, the score from individual transects on
256 the well tie pipeline will be averaged to arrive at an overall score for the well tie pipeline.
257 Additional information about establishing and reading the transects is attached in Appendix A.

258 Initial Monitoring Completed by FFO after the establishment of monitoring locations.

- 259 • One photo from each corner of the pad.
- 260 • Two photos of each required access road photo point: one photo looking toward the pad
261 and one photo looking away from the pad.
- 262 • One photo of each well pad line point intercept vegetation transect standing at one end of
263 the transect and looking down the length of the transect to towards the other end, and one
264 photo standing at one end of the transect and looking straight down to the ground.
- 265 • Two photos of each well tie pipeline transect location: one photo looking toward the pad
266 and one photo looking away from the pad (if well tie pipeline is owned by the operator).
- 267 • FFO will complete the initial monitoring form at submit a copy to the operator within 60
268 days of earthwork and/or seeding approval.

269 Annual Monitoring Conducted by the Operator beginning two years after seeding:

- 270 • One photo from each corner of the pad in direction indicated on the initial monitoring
271 report.
- 272 • Two photos of each required road photo: one photo looking toward the pad and one photo
273 looking away from the pad as indicated on the initial monitoring report.
- 274 • Two photos of each well tie pipeline transect location: one photo looking toward the pad
275 and one photo looking away from the pad as indicated on the initial monitoring report (if
276 well tie pipeline is owned by the operator).
- 277 • Operator will complete the monitoring report form and submit to the FFO before Dec. 31
278 of the year monitored.

279 Attainment of Vegetation Percent Cover Standard;

280 The operator may request FFO concurrence that vegetation percent cover standards have been
281 attained any time after 2 calendar years of completion of earthwork and seeding. The operator
282 will submit the following in a request for concurrence that vegetation percent cover standards
283 have been attained:

- 284 • The overall per cent foliar cover score for the well pad and well tie pipeline if owned by
285 the operator.

- 286
- The line point intercept transect data sheets
- 287
- One photo from each corner of the pad in direction indicated on the initial monitoring
- 288
- report.
- 289
- One photo of each well pad line point intercept vegetation transect standing at one end of
- 290
- the transect and looking down the length of the transect to towards the other end as
- 291
- indicated on the initial monitoring report. One photo taken of each well pad transect from
- 292
- one end of the transect looking straight down to the ground.
- 293
- Two photos of each well tie pipeline transect location: one photo looking toward the pad
- 294
- and one photo looking away from the pad as indicated on the initial monitoring report.
- 295
- One photo taken of each well tie pipeline transect from one end of the transect looking
- 296
- straight down to the ground (if well tie pipeline is owned by the operator).
- 297
- The operator will submit a request for concurrence that the per cent cover standards have
- 298
- been obtained. FFO will reply to the operator to confirm concurrence (or not) with a
- 299
- rational for the determination within 60 days of receiving the request.

300 Long Term Monitoring after Vegetation Percent Cover Standards have been Attained:

301 The proponent will monitor the site every 5th year after attainment of vegetation percent cover

302 standards.

- 303
- One photo from each corner of the pad in direction indicated on the initial monitoring
- 304
- report.
- 305
- Two photos of each required road photo: one photo looking toward the pad and one photo
- 306
- looking away from the pad as indicated on the initial monitoring report.
- 307
- Two photos of each well tie pipeline transect location: one photo looking toward the pad
- 308
- and one photo looking away from the pad as indicated on the initial monitoring report (if
- 309
- well tie pipeline is owned by the operator).
- 310
- Operator will complete the monitoring report form and submit to the FFO before Dec. 31
- 311
- of the year monitored.

312 Cessation of Vegetation Reclamation Monitoring

313

314 The APD permit holder is responsible for all revegetation and monitoring requirements until all

315 associated facilities or infrastructure is abandoned by established BLM procedure and a FAN is

316 issued by the FFO. If the plug and abandon earthwork results in bare soil, the Vegetation

317 Reclamation Procedure or the Vegetation Reclamation Procedure will be followed depending on

318 the area of bare soil resulting from the earthwork. The operator must document that per cent

319 cover standards have been obtained when submitting a request for a FAN. If ownership of any

320 portion of the APD site is transferred to another entity, the revegetation and monitoring

321 requirements for the portion transferred will be assumed by the acquiring entity.

322 Vegetation Cage

323 The use of vegetation cage is optional. A vegetation cage may help determine if grazing is a

324 contributing factor for failure to attain vegetation percent cover standards. If the operator decides

325 to use a vegetation cage on their location, FFO will furnish the first cage and GPS its location

326 during the earthwork and seeding inspection. After the cage is set, the cage will become the
327 property of the operator, and if the cage is lost or damaged, then it is the operator's responsibility
328 to replace the cage in the original location.

329 Request Exception:

330 The operator may request an exception to the vegetation percent cover standards any time after 2
331 calendar years of completion of earthwork and seeding. For FFO to process the exception request,
332 the operator must submit the following information to the FFO:

- 333 • Photo point monitoring from the most recent monitoring conducted on the site
- 334 • An explanation of conditions that may preclude successful attainment of standards
- 335 • A summary of reclamation techniques performed on the site.

336 Documentation and Reporting

337
338 The FFO will supply proponents with blank Adobe Pro writable forms for monitoring and
339 reporting. The operator will complete and submit the appropriate vegetation reclamation
340 monitoring form for each site monitored via CD or other appropriate means to the FFO by
341 December 31, of the year that monitoring was conducted. The FFO will evaluate the vegetation
342 reclamation monitoring forms and reply via Email to the proponent within 60 days after the report
343 is received. The FFO response to the operator will acknowledge that the monitoring forms were
344 received, analyzed, and may include comments as necessary. The FFO will place the monitoring
345 report and the reply in the appropriate project well file.

346

347 Lack of Progress in the Attainment of the Standard

348
349 When monitoring reports indicate that interim reclamation is not successful, or the FFO identifies
350 negative impacts within the interim reclamation area, the FFO or the operator may request a
351 conference to analyze the issues that may have contributed to reclamation failure, or lack of
352 meaningful progress. FFO will facilitate the conference and invite potential effected parties such
353 as: the operator; FFO surface, range, rights of way, or recreation staff; the grazing permittee; or
354 other authorized users that may be operating in the vicinity of the well pad. The members of the
355 conference will discuss the potential causes that may have contributed to the nonattainment of the
356 reclamation standards. The conference will result in the development of a remedy plan to address
357 the lack of revegetation success, or to repair and reseed damage to reclaimed areas. In cases
358 where the operator can demonstrate that the well pad does not have the biological potential to
359 attain the standards, the conference will result in the initiation of the exception process.

360

361 Pad Constructed, but Well not Drilled within 120 day of Pad Construction

362
363 If an operator has not initiated drilling operations on a pad within 120 days after the pad was
364 constructed, the operator must submit a site stabilization plan to the FFO for approval. The intent
365 of the stabilization plan is to reduce soil erosion, prevent the establishment of undesirable weeds,
366 and establish short term productivity to the site. The plan may include seeding a short lived or

367 sterile cover crop such as Quickguard, the installation of temporary soil stabilization mats, or
368 other stabilization techniques that the operator may propose. If the operator requests an extension
369 of the of the two year APD authorization, FFO will review the stabilization plan before approving
370 the extension

371

372 Dispute Resolution

373

374 The operator may request a review of instructions or decisions issued by the FFO staff related to
375 the Surface Use Plan of Operations Procedure Update. The operator may submit the request for
376 review including supporting documents to the FFO assistant field manager. The assistant field
377 manager will resolve the issue at the field office level. The operator may also request an
378 Administrative Review under 43 CFR 3165.3 of any instructions, orders, or decisions issued by the
379 Authorized Officer. Such a request, including all supporting documents, must be filed in writing
380 within 20 business days of receipt of the any instructions, orders, or decisions and must be filed with the
381 State Director, Bureau of Land Management, and P.O. Box 27115, Santa Fe, New Mexico 87502-0115.
382 Such a request will not result in a suspension of the instructions, orders, or decisions unless the reviewing
383 official so determines. Procedures governing appeals from the instructions, orders, or decisions are
384 contained in 43 CFR 3165.4 and 43 CFR 4.400 ET. Seq.

385

386 Revision of Revegetation Plan

387

388 The operator may submit a request to revise the Revegetation plan at any time during the life of well in
389 accordance to the Gold Book page 44. The operator will utilize the Sundry Notices and Reports on Wells
390 Form 3160-5 and include justification for the revision request.

391

392 **Vegetation Reclamation Procedure Implementation Process**

393 Pre Disturbance

394 The FFO and the operator will conduct a pre disturbance site visit to the proposed project area to
395 characterize the site. A weed survey will be conducted by FFO and/or a third party environmental
396 contractor and the FFO Pre Disturbance Weed Management Procedure will be followed
397 (Appendix B). The FFO in collaboration with the operator will determine which of the eight
398 vegetation communities identified in the FFO Reclamation and Rehabilitation Procedure best
399 represent the proposed project area. Some proposed well pads may contain attributes of more than
400 one vegetation community. When a pad does contain the attributes of more than one vegetation
401 community, the vegetation community with the lowest vegetation per cent cover standard will be
402 adopted for the entire pad. The operator will take photos of the proposed project site. If soil
403 conditions on the site appear to preclude the successful attainment of vegetation standards of the
404 vegetation community that best represent the site, the FFO and the holder may document those
405 soil conditions in the onsite notes. Soil conditions will not preclude the vegetation reclamation
406 requirements for the site at the time of seeding, but soil condition documentation may be used as a
407 basis for future exception request consideration for the site if the vegetation per cent cover

408 standards have not been attained. Ownership of the well tie pipeline will be declared during the
409 onsite and recorded on the onsite form.

410 Revegetation Plan

411 The Revegetation Plan must identify which components of the well site are included in the plan
412 i.e. the well pad and access road, or well pad, access road, and well tie pipeline when the well
413 operator is the owner of the well tie pipeline. Information gathered from the pre disturbance site
414 visit will be incorporated into the Revegetation Plan. The Revegetation Plan will apply during the
415 life of the well including: interim reclamation, long term operations, and the final abandonment
416 process until the issuance of the final abandonment notice (FAN). The operator may submit an
417 alternative revegetation plan that meets the minimum requirements for percent cover and
418 monitoring established in the Vegetation Reclamation Plan Procedure to the FFO for approval.
419 The plan may be modified during the life of the well with approval of FFO. The
420 RevegetationPlan will include:

- 421 • Photos of the undisturbed proposed project area.
- 422 • The vegetation community that most accurately represents the proposed project site.
- 423 • The proposed seed mix that was developed from the seed pic list located in the appropriate
424 vegetation community description, or proposed seed mix developed from other sources.
- 425 • A reference to monitoring and reporting requirements.
- 426 • A reference to the revegetation cover standards from the appropriate vegetation
427 community description.
- 428 • A description of any soil amendments or other reclamation techniques that may be
429 developed from the vegetation community description recommendations, or other
430 techniques proposed by the operator
- 431 • A reference to final abandonment. If P&A results in one acre or more of bare soil, initiate
432 Revegetation Plan. If P&A results in less than one acre of bare soil, initiate Vegetation
433 Reclamation Plan. Revegetation standards must be attained before FFO issues a FAN.

434 The Revegetation Plan will be included in the SUPO, and will be appended to the environmental
435 assessment (EA).

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Glossary

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448

449 **APD site:** all actions that may impact the soil surface that are authorized by the FFO resulting
450 from the Application for Permit to Drill (APD) process; actions generally include a well pad,
451 access road, and well tie if owned by the operator.

452

453 **Attainment of Standards:** The reclamation standards are established in the FFO Reclamation
454 and Rehabilitation Procedure habitat descriptions. Each of the 8 habitat descriptions includes a
455 reclamation standard as defined by a required percent of plant cover consisting of grasses, forbs,
456 or shrubs that FFO determined was sufficient to provide a minimum level of soil stability and
457 forage productivity. A line point intercept transect must be established. To attain the standard,
458 the foliar, or foliar plus basal cover data collected from the line point intercept transect must meet
459 or exceed the standards established in the habitat description.

460

461 **Bare mineral soil:** soil that has been disturbed resulting in a loss of vegetation, viable roots,
462 organic material, and biological crusts.

463

464 **Collector road:** arterial roads usually double-lane, graded, drained and surfaced, with a 20 to 24
465 foot travel way. They serve large land areas and are the major access route into development
466 areas.

467

468 **Dispute Resolution:** The operator may request a review of instructions or decisions issued by the
469 FFO staff related to the Surface Use Plan of Operations Procedure Update.

470

471 **Earthwork inspection:** An inspection conducted by the BLM in collaboration with the operator
472 after interim or final reclamation has been completed. The inspection focuses on the reclamation
473 of the cut and fill slopes, water management ditches, diversions and/or silt traps and seeding of
474 disturbed areas of the well site. The FFO approves (or not) all these finished construction
475 activities. During the earthwork inspection process, the FFO in collaboration with the operator
476 will determine site specific monitoring locations on the well pad, access road, and well tie
477 pipeline if owned by the operator.

478

479 **FFO Reclamation and Rehabilitation Procedure:** An office wide plan to establish standards
480 and guidelines for habitat improvement and the revegetation of soils that are reduced to bare
481 mineral soil due to an action authorized by FFO. The plan includes monitoring requirements for
482 both habitat improvement projects and revegetation of bare mineral soil. The plan includes
483 descriptions of the 8 most common vegetation habitat types within lands managed by the FFO.
484 The 8 habitat descriptions include management goals, desired plant community definitions,
485 reclamation standards, and suggestions for techniques to attain reclamation standards.

486

487 **Grazing:** Grazing refers to all animals that may graze on an APD site including authorized
488 livestock and wildlife. The operator is not relieved of revegetation responsibilities because of
489 grazing. If grazing is identified as an impediment to the attainment of revegetation standards, the
490 operator or FFO may initiate a conference to collaboratively develop a remedy plan to address the
491 grazing issue.

492
493 **Invasive/undesirable plants:** An invasive/undesirable plant is defined as a plant that can be non-
494 native or native which has the potential to become a dominant species on a site where its presence
495 is a detriment to revegetation efforts or the native plant community. Examples of Invasive
496 species include cheatgrass and kochia,

497
498 **Local road:** collector roads may be single or double-lane with travelways 12 to 24 feet in width
499 and are normally graded, drained, and surfaced. These roads provide access to large areas and are
500 for various uses.

501
502 **Operator:** the operator may be an employee of the company that initiated the APD application, or
503 an authorized representative of the company that initiated the APD application.

504 **Noxious weed:** all plants on the A and B list of the New Mexico Noxious Weed List (April
505 2009), developed by the New Mexico Department of Agriculture.

506
507 **Reclamation suggestions:** reclamation suggestions are techniques, procedures, and methods that
508 may help to achieve more effective reclamation success. The Vegetation Community
509 Descriptions contains a section of reclamation suggestions.

510
511 **Remedy:** A remedy is a plan to correct impacts or impediments to the attainment of revegetation
512 standards. The operator or FFO may request a conference when an issue that precludes the
513 attainment of the revegetation standard is identified. The operator in collaboration with the FFO
514 will develop and submit a plan to remedy the issue within a time frame agreed to by the FFO and
515 the operator. If the operator fails to submit a remedy plan to the FFO, a mandatory remedy plan
516 may be issued to the operator. If the operator does not agree with the remedy plan, the operator
517 may follow the Dispute Resolution process.

518
519 **Resource road:** resource roads are generally low-volume, single-lane roads. They normally
520 have a 12 to 14 foot travelway with “intervisible turnouts” as appropriate. These roads connect
521 terminal facilities, such as a well site, to collector or local roads. They serve low average daily
522 traffic, and are located on the basis of the specific resource activity need rather than travel
523 efficiency.

524
525 **Revegetation Plan:**

526 A plan for the reestablishment of vegetation on bare ground areas that result from the
527 construction, operation, and abandonment of an authorized permit to drill. A Revegetation Plan is
528 a required element of the SUPO.

529

530 **Surface Reclamation:** surface reclamation refers to the on the ground process of revegetating and
531 stabilizing disturbed areas that are over one acre in size, that have been reduced to bare mineral
532 soil, that occur from any FFO authorized action. This process is guided by the Vegetation
533 Reclamation Plan that establishes specific reclamation success criteria and monitoring minimum
534 requirements. FFO makes no distinction between interim and final vegetation reclamation; the
535 process and success standards are the same.

536

537 **Surface Use Plan of Operations Procedure Update:** The Farmington Field Office (FFO)
538 established procedures to define office specific expectations for a complete application for permit
539 to drill (APD). The SUPO Procedure provides guidelines regarding the development and
540 submittal of site-specific revegetation plans to be incorporated into the SUPO, and establish
541 specific revegetation attainment standards. This procedure provides the minimum information and
542 operation standards that the FFO expects to be incorporated into the SUPO site-specific
543 revegetation plans at the level of detail necessary for the FFO to assess the technical adequacy and
544 Resource Management Plan (RMP) conformance of revegetation practices proposed by a
545 operator.

546

547 **Tear drop:** The day to day driving surface on the well site. Typically involves the driving
548 surface originating from the well site entrance, around the wellhead and in front of the production
549 facilities, thus creating a teardrop shaped driving surface. Where multiple wells and facilities are
550 co-located on a single or twin location, a teardrop driving surface may not be feasible depending
551 on the layout of the production facilities.

552

553 **Vegetation Reclamation Procedure A:**

554 Applies to areas authorized by an APD disturbed to bare mineral soil in areas of less than one
555 acre, but more than one tenth of an acre during the life of the well.

556

557 **Vegetation Reclamation Procedure B:**

558 Applies to areas authorized by an APD disturbed to bare mineral soil in areas of one acre or larger
559 during the life of the well.

560

561 **Well tie pipeline:** a small diameter pipeline generally less than 4.5 inches outside diameter, used
562 to transport natural gas and/or liquids that connects to a larger diameter pipeline or gathering
563 system. A well tie pipeline may be owned by the operator of the well, or by a transportation
564 company. The SUPO must identify the owner of the well tie pipeline.

565

566 **Working area (SUPO Procedure):** the FFO considers the working area to include areas
567 routinely used by the operator and service workers to operate and maintain the well facilities, and
568 sufficient level areas for setup of a work over rig and to park equipment.

569

570 **Working Area (FFO Reclamation and Rehabilitation Procedure):** FFO considers working
571 areas to be areas necessary for the routine long term operation of an authorized site. A proponent
572 of an action may submit a plat of a proposed working area in an Environmental Assessment,
573 permit application, or sundry notice for FFO approval. The AO may, or may not require working
574 areas to be reseeded depending on the purpose of the working area. Portions of approved working
575 areas that are required to be reseeded may be redisturbed during the operational life of the
576 authorized action. Any seeded working areas that are redisturbed during long term operations
577 will be repaired and reseeded.

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Appendix A

Line Point Intercept Transect Process and Form

Line Point Intercept Transect

Establishing the transect should begin with selecting a beginning point and driving an 18 inch piece of rebar approximately 12 inches into the ground. Attach the end of a 100 foot tape to the rebar support and extend it to the 100 foot mark and drive a second piece of rebar into the ground about four inches beyond the 100 foot mark. Both of these rebar locations will be identified using a GPS with the coordinates in NAD 83, UTM's.

Photo Data: A color photograph should be taken while standing directly over a rebar looking toward the rebar at the opposite end of the transect. The photo should provide good detail of the vegetative stand along the transect line. Two additional photos of each rebar will be taken from standing directly above the rebar looking straight down at the rebar. These photos will provide a visual estimate of the percentage of bare ground in the transect area.

Reading the transect: The intent of the line point intercept transect is to collect foliar/canopy vegetative cover. The actual data collection process involves the observer (see Figure 1) moving along the suspended tape and extending a pin flag or other similar pointed device (e.g., a sharpened 1/4 inch dowel) that has a point no larger than 1/16 inch at each one foot increment. The pointer should extend directly down beneath the number on the tape. Each point has the potential for multiple foliar canopies such as shrub and grass. This concept is easier to grasp if one visualizes a drop of rain falling from the sky and what it encounters before it reaches the ground.



Line Point Intercept Transect Data Form

Date _____ Operator _____ Project Name/# _____
 API # _____ ROW # _____ EA or Lease # _____
 Location Township, Range, Section _____ Veg Community _____
 Veg Cover % Standard _____ Date Seeded _____ Monitor Name _____

Pt. #	Desirable	Undesirable	PT.#	Desirable	Undesirable	Pt.#	Desirable	Undesirable	Pt.#	Desirable	Undesirable
1			26			51			76		
2			27			52			77		
3			28			53			78		
4			29			54			79		
5			30			55			80		
6			31			56			81		
7			32			57			82		
8			33			58			83		
9			34			59			84		
10			35			60			85		
11			36			61			86		
12			37			62			87		
13			38			63			88		
14			39			64			89		
15			40			65			90		
16			41			66			91		
17			42			67			92		
18			43			68			93		
19			44			69			94		
20			45			70			95		
21			46			71			96		
22			47			72			97		
23			48			73			98		
24			49			74			99		
25			50			75			100		

For each point, record only live vegetation in the boxes to the right of the point #. More than one species may be intercepted at each point; record all species intercepted. If no live vegetation is intercepted at a point, leave the boxes blank. Record the species symbol in the appropriate box if the species is known. If the species is unknown, record UG for unknown grass, UF for unknown forb, US for unknown shrub in the desirable box, and UU for unknown undesirable plant in the undesirable box. For % totals, Record the number of entries in the Desirable column, record the number of entries in the undesirable column, and add the Desirable plus the Undesirable and record the Total:

% Desirable Foliar Vegetation _____ % Undesirable Foliar Vegetation _____ %

Score: Desirable Foliar Cover _____ % + Undesirable Foliar Vegetation (10% Maximum) _____ % = Total Score _____ %

Desirable Plants from Seed Pick Lists

Grass	Scientific Name	Symbol
Alkali muhly	<i>Muhlenbergia asperifolia</i>	MUAS
Alkali Sacaton	<i>Sporobolus airoides</i>	SPAI
Arizona fescue	<i>Festuca arizonica</i>	FEAR
Blue bunch wheatgrass	<i>Pseudoroegneria spicata</i>	PSSP
Blue grama	<i>Bouteloua curtipendula</i>	BOGR
Bottlebrush Squirreltail	<i>Elymus elymoides</i>	ELEL
Siberian Wheatgrass	<i>Agropyron fragile</i>	AGFR
Galleta	<i>Hilaria jamesii</i>	HIJA
Giant dropseed	<i>Sporobolus giganteus</i>	SPGI
Indian Ricegrass	<i>Oryzopsis hymenoides</i>	ORHY
Inland saltgrass	<i>Distichlis spicata</i>	DISP
Mountain muhly	<i>Muhlenbergia Montana</i>	MUMO
Mutton grass	<i>Poa fendleriana</i>	POFE
Needleandthread	<i>Hesperostipa comate</i>	HECO
Prairie Junegrass	<i>Koeleria macrantha</i>	KOMA
Pubescent Wheatgrass	<i>Agropyron barbulatum</i>	AGBA
Sand Dropseed	<i>Sporobolus cryptandrus</i>	SPCR
Sandhill Muhly	<i>Muhlenbergia pungens</i>	MUPU
Sideoats gramma	<i>Bouteloua curtipendula</i>	BOCU
Slender Wheatgrass	<i>Elymus trachcaulum</i>	ELTR
Spike dropseed	<i>Sporobolus contractus</i>	SPCO
Western Wheatgrass	<i>Agropyron smithii</i> Arriba	AGSM

Forb

Blue Flax	<i>Linum lewisii</i>	LIPE
Mormon tea	<i>Ephedra viridis</i>	EPVI
Penstemon spp	<i>Penstemon</i>	PEVI
Rocky Mtn. Bee Plant	<i>Cleome serrulata</i>	CLSE
Scarlet globemallow	<i>Sphaeralcea coccinea</i>	SPCO
Small Burnet	<i>Sanguisorba minor</i>	SAMI
Sulphur buckwheat	<i>Eriogonum umbellatum</i>	ERUM
Utah sweetvetch	<i>Hedysarum boreale</i>	HEBO
Wyoming Paintbrush	<i>Castilleja linearifolia</i>	CAAU
Unidentified forb		UF

Shrub

Winterfat	<i>Krascheninikova lanata</i>	KRLA
Shadscale	<i>Atriplex confertifolia</i>	ATCO
Rubber Rabbitbrush	<i>Chrysothamnus nauseosus</i>	CHNA
Wyoming Big Sagebrush	<i>Artemisia tridentata</i>	ARTR
Mountain mahogany	<i>Cercocarpus montanus</i>	CEMO
Fendler bush	<i>Fendlera rupicola</i>	FERU
Antelope Bitterbrush	<i>Purshia tridentate</i>	PUTR
Fourwing Saltbush	<i>Atriplex canesens</i>	ATCA
Greasewood	<i>Sarcobatus vermiculatus</i>	SAVE
Unidentified shrub		US

Some Common Undesirable Plants

Broom snakeweed	<i>Gutierrezia sarothrae</i>	GUSA
Bull Thistle	<i>Cirsium vulgare</i>	CIVU
Cheat grass	<i>Bromus tectorum</i>	BRTE
Cocklebur	<i>Xanthium strumarium</i>	XASP
Field bindweed	<i>Convolvulus arvensis</i>	COAR
Halogeton	<i>Halogeton glomeratus</i>	HAGL
Kochia	<i>Kochia scoparia</i>	BASC
Russian Knapweed	<i>Centaurea repens</i>	ACRE
Russian thistle	<i>Salsola iberica</i>	SATR

Line Point Intercept Transect Data Form

Date 10-10-12

Operator Burlington

Project Name// King # 3

API # 30-045-34456 ROW #

EA or Lease # 078207

Location Township, Range, Section Sec. 22 30N 10W

Veg Community Sage/grass

Veg Cover % Standard 35 Date Seeded 2008

Monitor Name Wogener, Wirth, Williams, Liess

Pt. #	Desirable	Undesirable	Pt. #	Desirable	Undesirable	Pt. #	Desirable	Undesirable	Pt. #	Desirable	Undesirable
1		—	26		—	51	AGCR		76		—
2	ORHY		27		—	52		—	77	ORHY	
3		—	28	AGCR		53	ATCA		78		SATR
4		—	29		SATR	54	ATCA		79		—
5	ORHY		30		—	55	ATCA ORHY		80		—
6		SATR	31		—	56	ATCA ORHY		81	Forb	
7		SATR	32		—	57	AGCA		82		—
8		—	33		—	58		—	83		—
9		SATR	34		—	59		—	84		—
10		—	35		—	60	ATCA AGCR		85	ORHY	
11	AGCR		36	AGCR		61	ATCA		86	AGCR	
12		—	37	AGCR		62	AGCR		87		SATR
13	AGCR		38		—	63	AGCR		88		SATR
14		—	39		—	64		—	89		—
15		—	40		SATR	65		—	90		—
16		—	41		—	66	ATCA AGCR		91		SATR
17		—	42		—	67	ATCA AGCR		92		—
18		—	43	AGCR		68		—	93		—
19	CHVA		44		SATR	69		—	94		SATR
20		—	45		SATR	70		—	95		SATR
21	ORHY		46		—	71		—	96	AGCR	
22		—	47		—	72		—	97		SATR
23		—	48		—	73		SATR	98		—
24	AGCR		49		SATR	74		—	99		—
25	AGCR		50		—	75		—	100		—

For each point, record only live vegetation in the boxes to the right of the point #. More than one species may be intercepted at each point; record all species intercepted. If no live vegetation is intercepted at a point, leave the boxes blank. Record the species symbol in the appropriate box if the species is known. If the species is unknown, record UG for unknown grass, UF for unknown forb, US for unknown shrub in the desirable box, and UU for unknown undesirable plant in the undesirable box. For % totals, Record the number of entries in the Desirable column, record the number of entries in the undesirable column, and add the Desirable plus the Undesirable and record the Total:

% Desirable Foliar Vegetation 29 % Undesirable Foliar Vegetation 16 %

Score: Desirable Foliar Cover 29 % + Undesirable Foliar Vegetation (10% Maximum) 10 % = Total Score 39 %

Appendix B
Surface Use Plan of Operations
Weed Management

Pre Disturbance Weed Management Procedure and Form

During the onsite inspection, the THE FFO and operator's representative(s) will survey the proposed well pad, access road, and well tie pipeline for noxious weeds listed on the New Mexico Department of Agriculture's A and B list attached to the Onsite Noxious Weed Form. If there are no noxious weeds on the proposed pad, access road, or well tie pipeline, THE FFO will indicate on the standard onsite check list form that there are no noxious weeds. If noxious weeds are found, THE FFO will fill out the Onsite Noxious Weed form (attached). The THE FFO representative and the operator's representative will sign the form, and the THE FFO representative will submit the completed form to the THE FFO weed coordinator.

The THE FFO weed coordinator will review the form and analyze the noxious weed issues. The THE FFO weed coordinator will electronically submit to the operator within 30 days of the onsite, specific requirements and instructions for weed treatments. The requirements and instructions will include the time frame of treatment, approved herbicides that may be used, required documentation to be submitted to THE FFO after treatment, and any other site specific instructions that may be applicable. Due to the seasonal nature of effective weed treatment techniques, the operator may be required to treat before ground disturbance, or may be required to treat the area after ground disturbance to avoid unreasonable delays to the operator's drilling program.

Class A Species

Class A species are currently not present in New Mexico, or have limited distribution. Preventing new infestations of these species and eradicating existing infestations is the highest priority.

Common Name	Scientific Name
Alfombrilla	<i>Drymaria arenariodes</i>
Black henbane	<i>Hyoscyamus niger</i>
Camelthorn	<i>Alhagi psuedalhagi</i>
Canada thistle	<i>Cirsium arvense</i>
Dalmation toadflax	<i>Linaria dalmatica</i>
Diffuse knapweed	<i>Centaurea diffusa</i>
Dyer's woad	<i>Isatis tinctoria</i>
Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Giant salvinia	<i>Salvinia molesta</i>
Hoary cress	<i>Cardaria spp.</i>
Hydrilla	<i>Hydrilla verticillata</i>
Leafy spurge	<i>Euphorbia esula</i>
Oxeye daisy	<i>Leucanthemum vulgare</i>
Parrotfeather	<i>Myriophyllum aquaticum</i>
Purple loosestrife	<i>Lythrum salicaria</i>
Purple starthistle	<i>Centaurea calcitrapa</i>
Ravenna grass	<i>Saccharum ravennae</i>
Scotch thistle	<i>Onopordum acanthium</i>
Spotted knapweed	<i>Centaurea biebersteinii</i>
Yellow starthistle	<i>Centaurea solstitialis</i>
Yellow toadflax	<i>Linaria vulgaris</i>

Class B Species

Class B species are limited to portions of the state. In areas with severe infestations, management should be designed to contain the infestation and stop any further spread.

Common Name	Scientific Name
African rue	<i>Peganum harmala</i>
Chicory	<i>Cichorium intybus</i>
Halogeton	<i>Halogeton glomeratus</i>
Malta starthistle	<i>Centaurea melitensis</i>
Musk thistle	<i>Carduus nutans</i>
Perennial pepperweed	<i>Lepidium latifolium</i>
Russian knapweed	<i>Acroptilon repens</i>
Poison hemlock	<i>Conium maculatum</i>
Teasel	<i>Dipsacus fullonum</i>
Tree of heaven	<i>Ailanthus altissima</i>

Onsite Noxious Weed Form

If noxious weeds are found during the onsite, fill out form and submit to FFO weed coordinator

Operator _____ Surveyor(s) _____

Well Name and Number _____ Date _____

Location: Township, Range, Section _____

Location of Project NAD 83 Decimal Degrees _____

Class A Noxious Weed – Check Box if Found

	Alfombrilla		Diffuse knapweed		Hydrilla		Purple starthistle		Yellow toadflax
	Black henbane		Dyer's woad		Leafy spurge		Ravenna grass		
	Camelthorn		Eurasian watermilfoil		Oxeye daisy		Scotch thistle		
	Canada thistle		Giant salvinia		Parrotfeather		Spotted knapweed		
	Dalmation toadflax		Hoary cress		Purple loosestrife		Yellow starthistle		

Class B Noxious Weed – Check Box if Found

	African rue		Perennial pepperweed
	Chicory		Musk thistle
	Halogeton		Malta starthistle

Comments:

FFO Representative: _____

sign and date

Operator Representative _____ sign and date

date

Appendix C

Example of information Required on Monitoring Forms

**FFO has developed PDF forms with drop down menus capable to be filled out on a computer
(available upon implementation)**

FFO Vegetation Monitoring Form (Photo Point)

Record Photo Point Locations in NAD 83 Decimal Degrees

Date _____ Operator _____ EA or Lease # _____ Date seeded _____

Project Name & # _____ API # _____ ROW # _____

Project Location: Township, Range, Section, ¼ Section _____ Monitor Name _____

Veg community _____ Veg Cover % Standard _____ Type of Monitoring _____ (initial, 1st period, annual, attainment)

Photo Point # 1 Location _____ : add image

Photo Point # 2 Location _____ : add image

Example of information Required on Monitoring Forms

**FFO has developed PDF forms with drop down menus capable to be filled out on a computer
(available upon implementation)**

FFO Vegetation Monitoring Form (Line Intercept Transect)

Record Transect Locations in NAD 83 Decimal Degrees

Date _____ Operator _____ EA or Lease # _____ Date seeded _____

Project Name & # _____ API # _____ ROW # _____

Project Location: Township, Range, Section, ¼ Section _____ Monitor Name _____

Veg community _____ Veg Cover % Standard _____ Type of Monitoring _____ (initial, 1st period, annual, attainment)

Transect #1 Location from _____ to _____ : add image

% Vegetation Cover Read from Transect #1 _____

Transect #2 Location from _____ to _____ : add image

% Vegetation Cover Read from Transect #2 _____

Appendix D
Sample Well Pad Layout

