

## Service Provider Letter

CWS File Number

**15-000727**

**This form and the attached conditions will serve as your Service Provider Letter in accordance with Clean Water Services Design and Construction Standards (R&O 07-20).**

Jurisdiction: Beaverton Review Type: Tier 2 Analysis  
 Site Address / Location: Beaverton, OR 97007 SPL Issue Date: June 19, 2015  
 SPL Expiration Date: June 17, 2017

**Applicant Information:**

Name \_\_\_\_\_  
 Company WEST HILLS DEVELOPMENT  
735 SW 158TH AVE  
 Address BEAVERTON OR 97006  
 Phone/Fax (503) 726-7030  
 E-mail: dgrimberg@arborhomes.com

**Owner Information:**

Name \_\_\_\_\_  
 Company WEST HILLS DEVELOPMENT  
735 SW 158TH AVE  
 Address BEAVERTON OR 97006  
 Phone/Fax (503) 726-7030  
 E-mail: dgrimberg@arborhomes.com

**Tax lot ID**

**Development Activity**

2S1060000200,  
2S1060000103

South Cooper Mountain Heights

**Pre-Development Site Conditions:**

Sensitive Area Present:  On-Site  Off-Site  
 Vegetated Corridor Width: 50  
 Vegetated Corridor Condition: Good/ Degraded

**Post Development Site Conditions:**

Sensitive Area Present:  On-Site  Off-Site  
 Vegetated Corridor Width: Variable

Enhancement of Remaining Vegetated Corridor Required:

Square Footage to be enhanced: 298,909

**Encroachments into Pre-Development Vegetated Corridor:**

Type and location of Encroachment:	Square Footage:
<u>Road, Lots, Stormwater Quality Facility (Permanent Encroachment; Mitigation Required)</u>	<u>41,818</u>
<u>Stormwater Outfall (Temporary Encroachment);</u>	<u>14,375</u>

**Mitigation Requirements:**

Type/Location	Sq. Ft./Ratio/Cost
<u>On-site</u>	<u>62,291</u>

Conditions Attached  Development Figures Attached (9)  Planting Plan Attached  Geotech Report Required

**This Service Provider Letter does NOT eliminate the need to evaluate and protect water quality sensitive areas if they are subsequently discovered on your property.**

No other alternatives that fulfill the applicant's purpose and need and meet TVFR safety concerns, as well as the City of Beaverton's transportation plan goals, provided more reduction in impacts to the vegetated corridors. Per Section 3.07.4, the Tier 2 Criteria have been met.

**3.07.4. c.1. The proposed encroachment area is mitigated in accordance with Section 3.08.**

On-site mitigation would replace the loss of existing vegetated corridors through enhancement of degraded areas adjacent to and contiguous with existing vegetated corridors through sufficient planting diversity and density to place the mitigation areas on a trajectory to become vegetated corridors in good condition. The on-site mitigation exceeds the 1:1 ratio of replacement to impacted vegetated corridors required under Section 3.08.2.

**3.07.4. c.2. The replacement mitigation protects the functions and values of the Vegetated Corridor and Sensitive Area.**

Mitigation through enhancement of 1.4 acres of degraded areas as a replacement of the loss of vegetated corridors associated with permanent encroachments exchanges degraded areas for good vegetated corridors. Additionally, the mitigation areas would expand the overall vegetative corridors and create a wider and more effective protective zone for water quality sensitive areas.

**3.07.4. c.3. Enhancement of the replacement area, if not already in Good condition, and either the remaining Vegetated Corridor on the site or the first 50 feet of width closest to the resource, whichever is less, to a Good corridor condition.**

Replacement areas and the remaining existing degraded corridors on site would be enhanced to promote the development of vegetated corridors in good condition. On-site vegetated corridor rated as degraded would be enhanced to good condition. The on-site vegetated corridor rated in good condition will be preserved.

**3.07.4. c.5. Location of the development and site planning minimizes incursion into the Vegetated Corridor.**

Lot configuration and siting was planned to minimize the impacts to vegetated corridors around water quality sensitive areas. Current lot configuration impacts the most degraded portions of the on-site vegetated corridors. Encroachment is occurring because lots cannot be shaped irregularly to follow the irregular shape of the developable area north of the vegetated corridor around Wetland F. Other impacts to vegetated corridors would be unavoidable aspects of development: siting of a water quality treatment facilities, the construction of neighborhood roads, and a roadway crossings connecting phases of on-site development, and a roadway crossings connecting the development with the development to the east. In total, site planning impacts would minimally disrupt the integrity of the vegetated corridor.

**3.07.4. c.6. No practicable alternative to the location of the development exists that will not disturb the Sensitive Area or Vegetated Corridor.**

All feasible efforts to minimize impacts to the vegetated corridors on site were made. A summary of these efforts is included as follows:

- Site design layout and alternatives consider the shape and irregularity of the vegetated corridor in balancing encroachments and preserving areas for mitigation and enhancement. Efficient lot patterns are somewhat linear and constant in shape, and the rear lots and fence lines are typically linear or on a large curve. Some of the minor lot encroachments are proposed to maintain lot patterns and constant dimensioning of lots, while some areas adjacent to existing vegetated corridor are left undisturbed to provide area for vegetated corridor mitigation areas and an efficient enhancement and expansion of the existing natural resource area.
- The roadway network has been established based on the South Cooper Mountain Master/Concept Plans and considered minimization of wetland impacts at crossings (the existing wetlands at the two drainage crossing are proposed to be spanned by bottomless culverts).
- The South Cooper Mountain Heights property contains steep slopes in the northern section of the site and the South Cooper Mountain Master/Concept Plans designate land uses in each area of the development footprint, and thus certain types and densities of lots are required. This influences phasing and associated storm water management treatment options, which are discussed further below.

The Stormwater Facilities are sized using current CWS and City of Beaverton design standards for detention, as they will be permitted while current standards are still in place. Design standard changes are expected in the next 1-2 years as a result of upcoming changes to the CWS NPDES MS4 permit, so Stormwater Facilities in Phases 2-5 may be required to meet a yet to be determined detention standard. The Phase 2-5 ponds in the current site plan reflect a 2.5 multiplier applied to the volume calculated using current CWS detention standards in order to ensure they meet the future standards.

Stormwater Facilities are sized for and located within each individual proposed phase of development so that each phase can be developed individually and on its own time frame. This is a requirement that determines the minimum number of facilities. Stormwater Facilities are placed near the lowest elevations of each phase to maximize the amount of runoff that can be collected in each facility, thus minimizing the number of facilities required to be constructed. One larger facility is more cost effective than several smaller facilities. The topography of this site is much steeper in the northern portion of the site, thus pushing the facilities to the southern portion of the site and adjacent to the existing drainage for outfalls. The facility located south of the west drainage crossing needs to be located close to the crossing to provide stormwater management for collector road runoff near the low point, and at that elevation, the outfall cannot reach the other facilities. Stormwater Facilities need to be placed where access roads can be constructed to reach the outfall control structures and detention/treatment areas for maintenance. Thus, they need to be adjacent to the primary roadway network. Walls in Stormwater Facilities (which may reduce buffer impacts in some areas) make it difficult to provide adequate access into the facility for maintenance and are much more expensive to construct. Walls in facilities need to meet CWS Design and Construction standards, and were considered wherever possible to minimize the footprint of the facilities and still meet CWS standards.

#### **3.07.4. c.7. The proposed encroachment provides public benefits.**

The public would benefit from the improvement of overall water quality through the enhancement of degraded condition vegetated corridors to good condition, the enhancement of additional (net positive acreage) degraded riparian vegetated corridor beyond the minimal requirements, and the treatment of previously untreated stormwater discharge by the new water quality facilities. In addition, pesticide and herbicide application in association with agricultural farming would cease with project development, thereby further improving water quality for the public.

#### **In order to comply with Clean Water Services water quality protection requirements the project must comply with the following conditions:**

1. No structures, development, construction activities, gardens, lawns, application of chemicals, uncontained areas of hazardous materials as defined by Oregon Department of Environmental Quality, pet wastes, dumping of materials of any kind, or other activities shall be permitted within the sensitive area or Vegetated Corridor which may negatively impact water quality, except those allowed in R&O 07-20, Chapter 3.
2. Prior to any site clearing, grading or construction the Vegetated Corridor and water quality sensitive areas shall be surveyed, staked, and temporarily fenced per approved plan. During construction the Vegetated Corridor shall remain fenced and undisturbed except as allowed by R&O 07-20, Section 3.06.1 and per approved plans.
3. **Prior to any activity within the sensitive area, the applicant shall gain authorization for the project from the Oregon Department of State Lands (DSL) and US Army Corps of Engineers (USACE). The applicant shall provide Clean Water Services or its designee (appropriate city) with copies of all DSL and USACE project authorization permits.**
4. An approved Oregon Department of Forestry Notification is required for one or more trees harvested for sale, trade, or barter, on any non-federal lands within the State of Oregon.
5. **Prior to ground disturbance an erosion control permit is required. Appropriate Best Management Practices (BMP's) for Erosion Control, in accordance with Clean Water Services' Erosion Prevention and Sediment Control Planning and Design Manual, shall be used prior to, during, and following earth disturbing activities.**

6. Prior to construction, a Stormwater Connection Permit from Clean Water Services or its designee is required pursuant to Ordinance 27, Section 4.B.
7. Activities located within the 100-year floodplain shall comply with R&O 07-20, Section 5.10.
8. Removal of native, woody vegetation shall be limited to the greatest extent practicable.
9. The water quality facility shall be planted with Clean Water Services approved native species, and designed to blend into the natural surroundings.
10. **Should final development plans differ significantly from those submitted for review by Clean Water Services, the applicant shall provide updated drawings, and if necessary, obtain a revised Service Provider Letter.**

#### **SPECIAL CONDITIONS**

11. The Vegetated Corridor width for sensitive areas within the project site shall be a minimum of 50 feet wide, as measured horizontally from the delineated boundary of the sensitive area.
12. For Vegetated Corridors up to 50 feet wide, the applicant shall enhance the entire Vegetated Corridor to meet or exceed good corridor condition as defined in R&O 07-20, Section 3.14.2, Table 3-3.
13. Removal of invasive non-native species by hand is required in all Vegetated Corridors rated ""good."" Replanting is required in any cleared areas larger than 25 square feet using low impact methods. The applicant shall calculate all cleared areas larger than 25 square feet prior to the preparation of the required Vegetated Corridor enhancement/restoration plan.
14. Prior to any site clearing, grading or construction, the applicant shall provide Clean Water Services or the City with a Vegetated Corridor enhancement/restoration plan. Enhancement/restoration of the Vegetated Corridor shall be provided in accordance with R&O 07-20, Appendix A, and shall include planting specifications for all Vegetated Corridor, including any cleared areas larger than 25 square feet in Vegetated Corridor rated ""good.""
15. Prior to installation of plant materials, all invasive vegetation within the Vegetated Corridor shall be removed per methods described in Clean Water Services' Integrated Pest Management Guide. During removal of invasive vegetation care shall be taken to minimize impacts to existing native tree and shrub species.
16. Clean Water Services shall be notified 72 hours prior to the start and completion of enhancement/restoration activities. Enhancement/restoration activities shall comply with the guidelines provided in Landscape Requirements (R&O 07-20, Appendix A).
17. **Maintenance and monitoring requirements shall comply with R&O 07-20, Section 2.11.2. If at any time during the warranty period the landscaping falls below the 80% survival level, the owner shall reinstall all deficient planting at the next appropriate planting opportunity and the two-year maintenance period shall begin again from the date of replanting.**
18. **Performance assurances for the Vegetated Corridor shall comply with R&O 07-20, Section 2.06.2.**
19. **For any developments which create multiple parcels or lots intended for separate ownership, Clean Water Services SHALL require that the sensitive area and Vegetated Corridor be contained in a separate tract and subject to a ""STORM SEWER, SURFACE WATER, DRAINAGE AND DETENTION EASEMENT OVER ITS ENTIRETY"" to be granted to the City or Clean Water Services.**

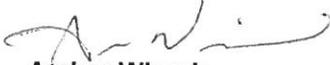
#### **FINAL PLANS**

20. **Final construction plans shall include landscape plans.** In the details section of the plans, a description of the methods for removal and control of exotic species, location, distribution, condition and size of plantings, existing plants and trees to be preserved, and installation methods for plant materials is required. Plantings shall be tagged for dormant season identification and shall remain on plant material after planting for monitoring purposes.
21. **A Maintenance Plan shall be included on final plans** including methods, responsible party contact information, and dates (minimum two times per year, by June 1 and September 30).

22. **Final construction plans shall clearly depict the location and dimensions of the sensitive area and the Vegetated Corridor** (indicating good, marginal, or degraded condition). Sensitive area boundaries shall be marked in the field.
23. Protection of the Vegetated Corridors and associated sensitive areas shall be provided by the installation of permanent fencing and signage between the development and the outer limits of the Vegetated Corridors. **Fencing and signage details to be included on final construction plans.**

**This Service Provider Letter is not valid unless CWS-approved site plan is attached.**

Please call (503) 681-3653 with any questions.



**Amber Wierck**  
Environmental Plan Review

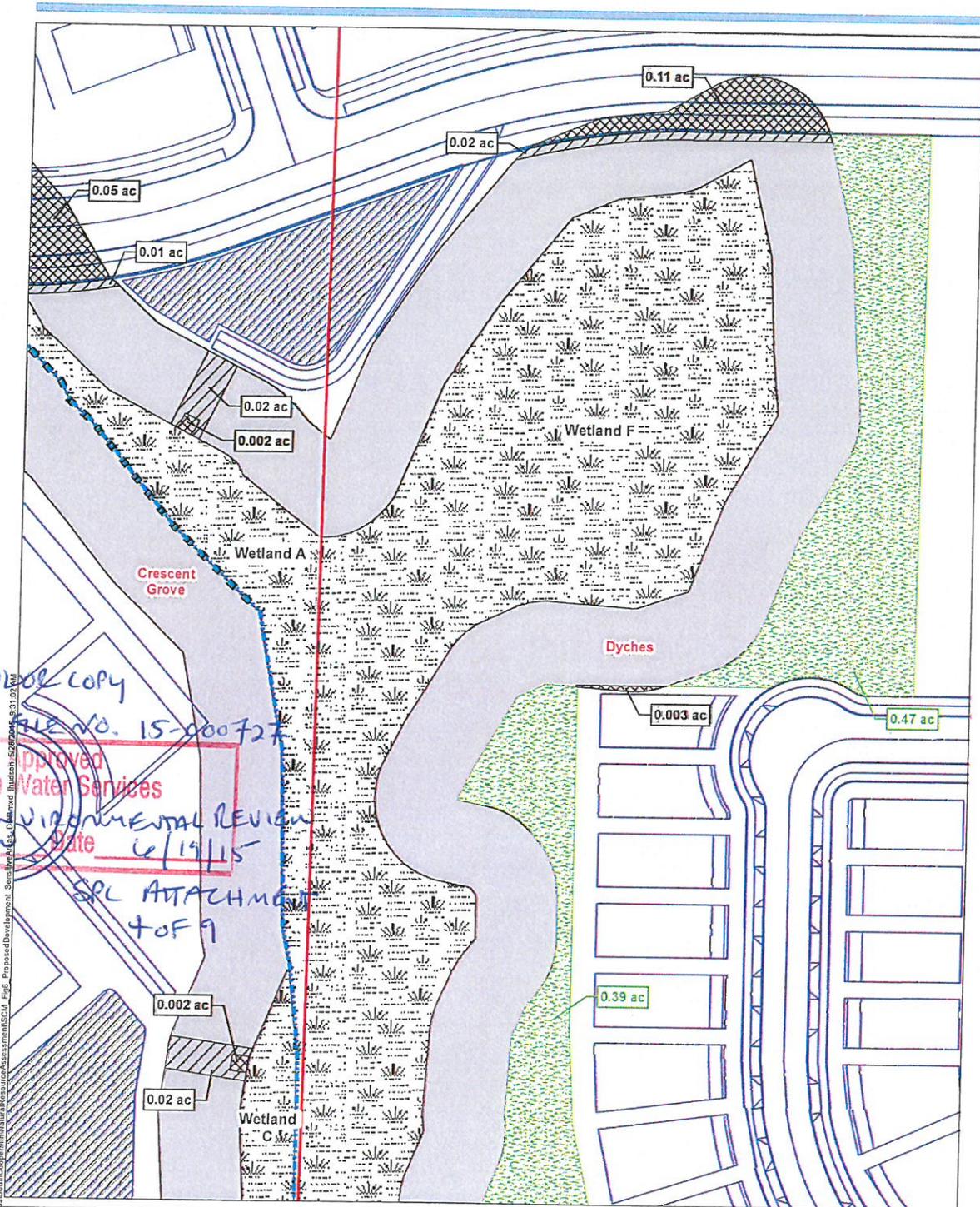
**Attachments (9)**







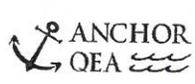
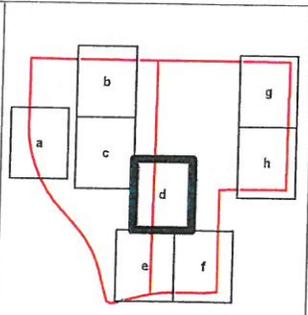
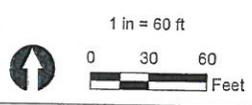




COLOR COPY  
 CWS FILE NO. 15-00072  
 Approved  
 Clean Water Services  
 FOR ENVIRONMENTAL REVIEW  
 By *Ann White* 6/19/15  
 SPL ATTACHMENT  
 4 OF 9

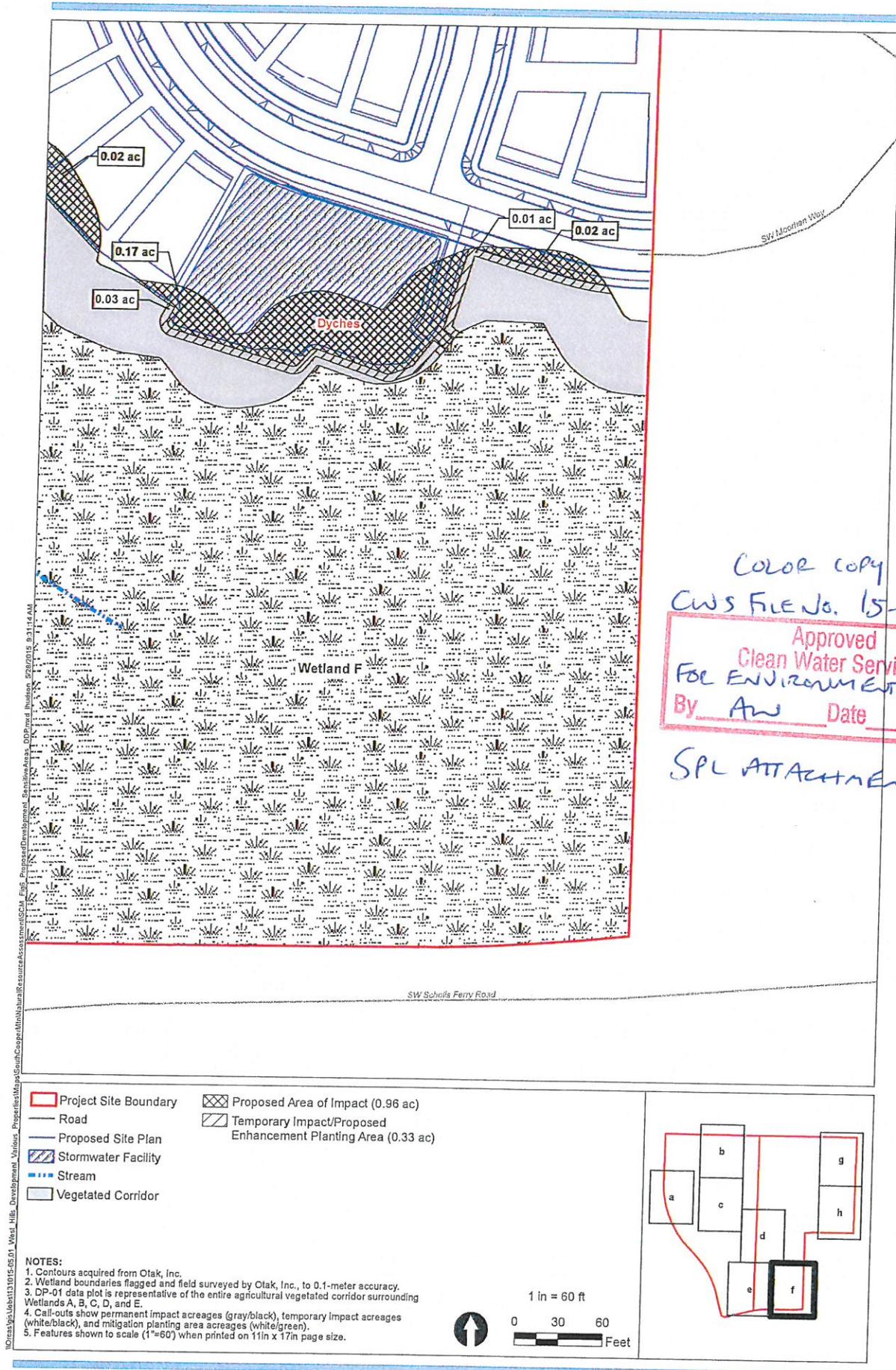
- |                       |   |
|-----------------------|---|
| Project Site Boundary | Proposed Area of Impact (0.96 ac)                             |
| Proposed Site Plan    | Temporary Impact/Proposed Enhancement Planting Area (0.33 ac) |
| Stormwater Facility   | Proposed Mitigation Planting Area (1.43 ac)                   |
| Stream                |   |
| Top of Bank           |   |
| Delineated Wetland    |   |
| Vegetated Corridor    |   |

**NOTES:**  
 1. Contours acquired from Otak, Inc.  
 2. Wetland boundaries flagged and field surveyed by Otak, Inc., to 0.1-meter accuracy.  
 3. DP-01 data plot is representative of the entire agricultural vegetated corridor surrounding Wetlands A, B, C, D, and E.  
 4. Call-outs show permanent impact acreages (gray/black), temporary impact acreages (white/black), and mitigation planting area acreages (white/green).  
 5. Features shown to scale (1"=60') when printed on 11in x 17in page size.

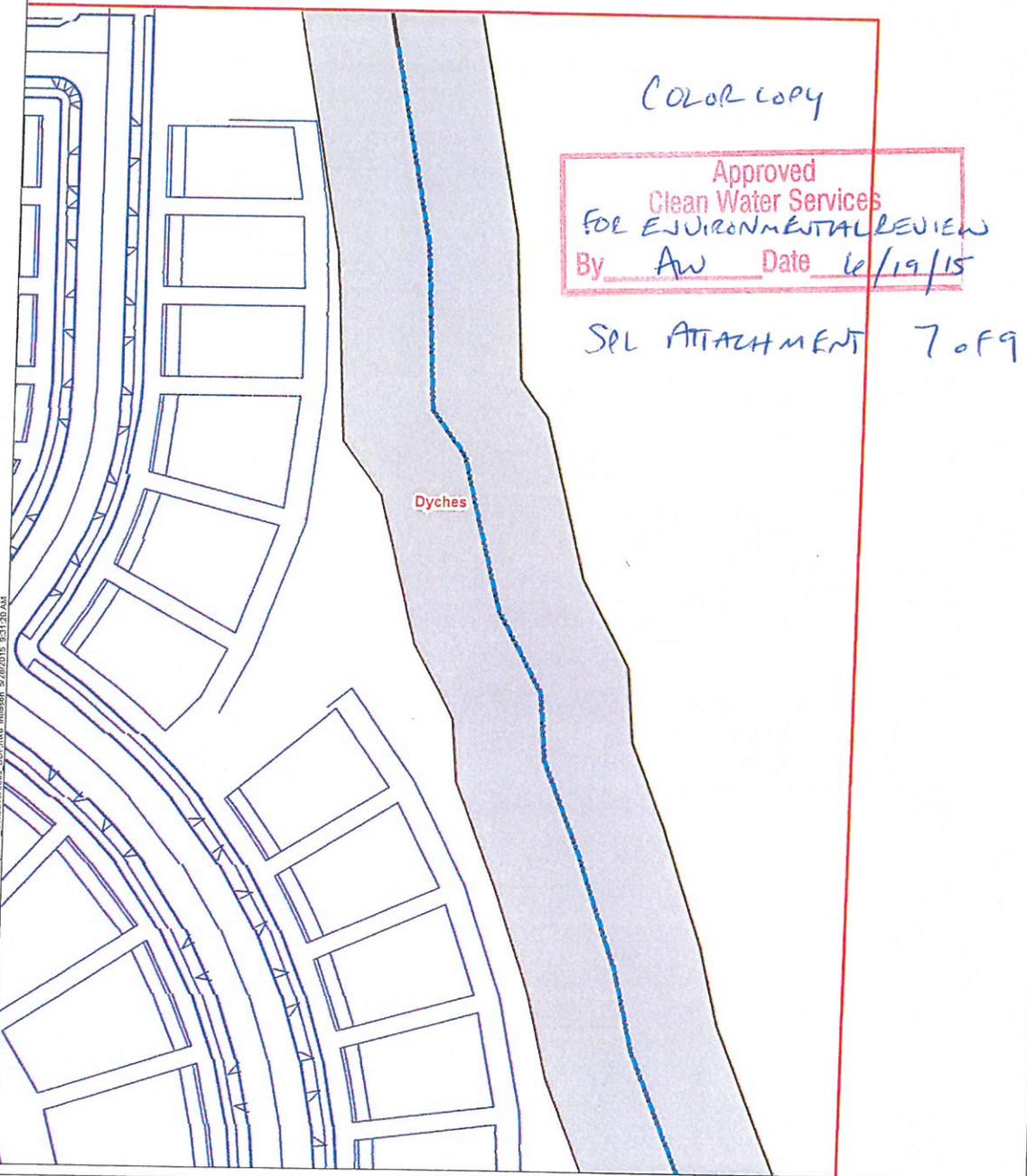


**Figure 6d**  
 Proposed Development  
 South Cooper Mountain Heights Natural Resource Assessment  
 Washington County, OR



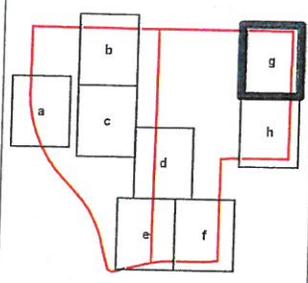
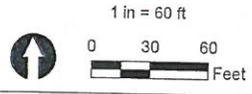


\\mszjg\Users\jsh131015\565.D1 - West Hills Development\Various Projects\Mapa\SouthCooper\Mapa\NaturalResourceAssessment\SCM\_Fig6\_ProposedDevelopment\_SensitiveArea\_DDP.mxd Hudson, 9/28/2015 9:11:20 AM

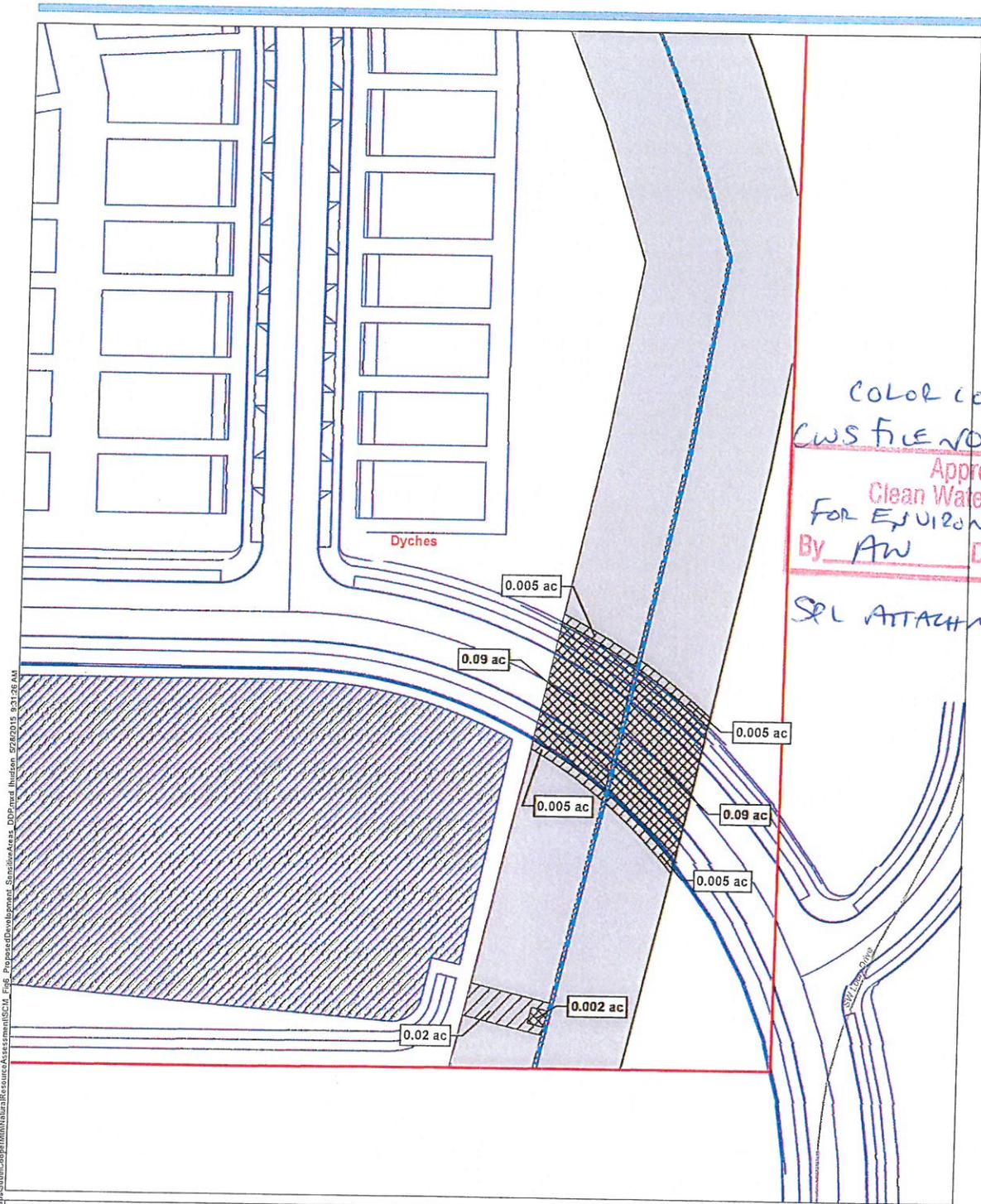


- Project Site Boundary
- Proposed Site Plan
- Stream
- Vegetated Corridor

- NOTES:**
1. Contours acquired from Otak, Inc.
  2. Wetland boundaries flagged and field surveyed by Otak, Inc., to 0.1-meter accuracy.
  3. DP-01 data plot is representative of the entire agricultural vegetated corridor surrounding Wetlands A, B, C, D, and E.
  4. Call-outs show permanent impact acreages (gray/black), temporary impact acreages (white/black), and mitigation planting area acreages (white/green).
  5. Features shown to scale (1"=60') when printed on 11in x 17in page size.



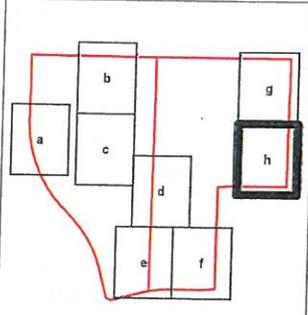
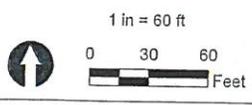
**Figure 6g**  
Proposed Development  
South Cooper Mountain Heights Natural Resource Assessment  
Washington County, OR



color copy  
 CWS file no. 15-000727  
 Approved  
 Clean Water Services  
 FOR ENVIRONMENTAL REVIEW  
 By AW Date 4/9/15  
 SPL ATTACHMENT  
 8 of 9

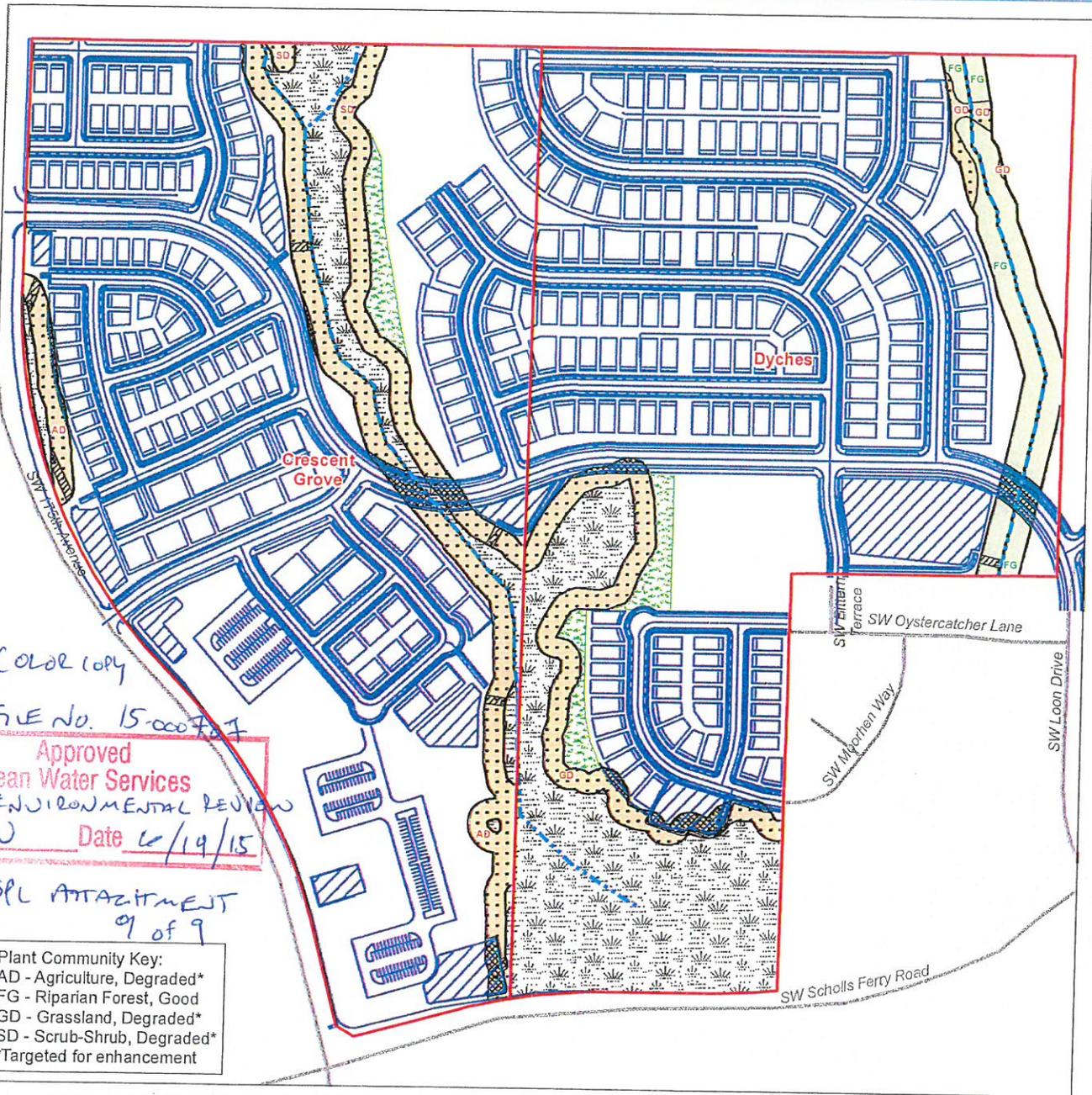
- Project Site Boundary
- Road
- Proposed Site Plan
- Stormwater Facility
- Stream
- Vegetated Corridor
- Proposed Area of Impact (0.96 ac)
- Temporary Impact/Proposed Enhancement Planting Area (0.33 ac)

NOTES:  
 1. Contours acquired from Otak, Inc.  
 2. Wetland boundaries flagged and field surveyed by Otak, Inc., to 0.1-meter accuracy.  
 3. DP-01 data plot is representative of the entire agricultural vegetated corridor surrounding Wetlands A, B, C, D, and E.  
 4. Call-outs show permanent impact acreages (gray/black), temporary impact acreages (white/black), and mitigation planting area acreages (white/green).  
 5. Features shown to scale (1"=60') when printed on 11in x 17in page size.



**Figure 6h**  
 Proposed Development  
 South Cooper Mountain Heights Natural Resource Assessment  
 Washington County, OR

\\orcass\jobs\131015-05.01 West Hills Development - Various Properties\Maps\South Cooper Mountain Natural Resource Assessment\SCM\_Fig7\_SiteOverview.mxd Ihudson 5/28/2015 9:49:10 AM

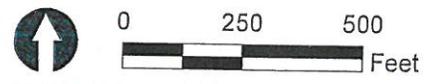


COLOR COPY  
 CWS FILE NO. 15-0007-7  
 Approved  
 Clean Water Services  
 FOR ENVIRONMENTAL REVIEW  
 By AW Date 6/19/15

SPL ATTACHMENT  
 9 of 9  
 Plant Community Key:  
 AD - Agriculture, Degraded\*  
 FG - Riparian Forest, Good  
 GD - Grassland, Degraded\*  
 SD - Scrub-Shrub, Degraded\*  
 \*Targeted for enhancement

Project Site Boundary	Vegetated Buffer	Proposed Area of Impact (0.96 ac)
Road	Plant Community Targeted for Enhancement	Temporary Impact/Proposed Enhancement Planting Area (0.33 ac)
Proposed Site Plan	<b>Plant Community Condition</b>	Proposed Mitigation Planting Area (1.43 ac)
Unnamed Drainage	Good (3.02 ac)	
Delineated Wetland	Degraded (7.93 ac)	

**NOTES:**  
 1. Site plan and areas of impact data acquired from Otak.  
 2. Wetland boundaries flagged and field surveyed by Otak, Inc., to 0.1-meter accuracy.  
 3. Dyches property wetland delineation data acquired from AKS Engineering and Forestry, LLC.



**Figure 7**  
 Site Overview  
 South Cooper Mountain Heights Natural Resource Assessment  
 Washington County, OR