



# Oregon

John A. Kitzhaber, M.D., Governor

## Department of Environmental Quality

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January 11, 2011

J.H. Baxter  
C/O RueAnn Thomas  
Bluefields Holdings  
333 SW Fifth Ave, Suite 510  
Portland, OR 97204

Regarding: Partial No Further Action Determination  
JH Baxter  
Eastern Storage Yard, Tax Lot 103  
ECSI 55

Dear Ms. Thomas:

Based on our review of ECSI File 55, the Department of Environmental Quality (DEQ) has determined that **no further action** is required for the eastern portion of the Site, beyond regular maintenance and inspection of the soil cap. This determination only applies to the eastern 11 acres of the site, identified as the Eastern Storage Yard, Tax Lot 103. The remainder of the site, including the core areas where active wood treatment occurs, is not included in this determination and will require additional remedial action.

Our review of the available information is summarized in the attached Staff Memorandum. Our determination is based on the regulations and facts as we now understand them, including but not limited to the following:

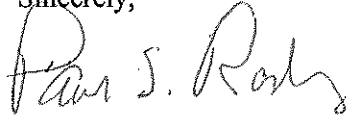
1. Historical activities at the site resulted in widespread shallow soil contamination on the Eastern Storage Yard.
2. Levels of arsenic in shallow soils on this portion of the site posed an unacceptable direct contact risk for site workers and future construction workers.
3. Contaminants on the Eastern Storage Yard are not contributing to groundwater contamination at the site, based on long-term groundwater monitoring.
4. JH Baxter proposed completing a soil cap at the site as an interim remedial action to eliminate risk to site workers, which DEQ approved in October of 2007. The cap was completed in late 2007.
5. Anticipating that the cap would be part of the remedy for the site, DEQ evaluated it along with four other remedial alternatives prior to approving it and public comments were solicited and received on the capping project.
6. The interim remedial action also required the recording of an Easement and Equitable Servitudes (E&ES) stipulating the site uses, preparation and implementation of a Site Management Plan, and a Health and Safety Plan. The E&ES was recorded in November 2010.

DEQ concludes that based on the information presented to date, the portion of the site described above is currently protective of public health and the environment, and the institutional controls

described above will be protective of human health and the environment for future uses of the property. The Eastern Storage Yard, therefore, requires no further action (except the institutional controls described above) under the Oregon Environmental Cleanup Law, ORS 465.200 et seq., unless new or previously undisclosed information becomes available. We will update the Environmental Cleanup Site Information System (ECSI) database to reflect this decision.

If you have any questions about this letter, please contact Geoff Brown at (541)686-7819.

Sincerely,



Paul S. (Max) Rosenberg, R.G.  
Western Region Cleanup Manager

Enclosure: Staff Memorandum

ecc: Geoffrey Brown, R.G.  
Steve Barnett, Premier Environmental

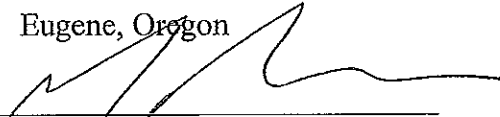


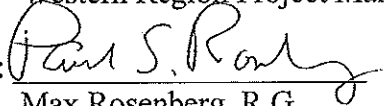
**JH BAXTER  
INTERIM REMEDIAL ACTION MEASURE  
SITE MEMORANDUM**

Site Name: J.H. Baxter

ECSI # 55

Site Location 85 Baxter Street  
Eugene, Oregon

Prepared by:   
Geoff Brown  
Western Region Project Manager

Approved by:   
Max Rosenberg, R.G.  
WR Cleanup Manager

Date: October 1, 2007

**Introduction**

J.H. Baxter (Baxter) has submitted a proposal to place a soil cap over the east 11 acres of the Baxter wood treatment facility in Eugene, Oregon. The purpose of the soil cap is to limit worker exposure to arsenic contaminated soils and to eliminate the potential for generating wind-blown arsenic-laden dust. This action is considered a removal action under OAR 340-122-0070.

The J.H Baxter (Baxter) site consists of approximately 42 acres of industrial property. The site has been used for wood treatment since the early 1940s, employing a variety of processes. Historical spills and material handling practices have resulted in soil and groundwater contamination by chemicals including pentachlorophenol, creosote-related chemicals, arsenic, and other metals.

The proposed remedial action measure applies only to the eastern 11 acres of the site. Contamination in this area of the site is limited to arsenic in shallow soils. The groundwater plume at the site, which is comprised mainly of pentachlorophenol with no arsenic component, originates beneath the central and western portions of the site. The 11-acre eastern portion does not contribute to groundwater contamination at the site.

Soil on the eastern 11 acres of the site contains arsenic at concentrations ranging from 15.2 mg/kg to 123 mg/kg, above risk-based concentrations (RBC)s for direct contact by industrial workers and construction workers, which are 1.7 parts per million (ppm) and 13 ppm, respectively. RBCs are values above which a chemical poses an unacceptable risk. DEQ compares site related chemicals to RBCs to determine if remedial action may be necessary. If a chemical exceeds an RBC, remedial action may be needed. Arsenic contamination in shallow soils on the East Storage Yard does not constitute a hot spot because arsenic is present at concentrations below 100 times the applicable risk based concentration for the site.

Arsenic contamination in the Eastern Storage Yard is confined to the shallowest soils, with no elevated levels of arsenic detected at depths greater than three feet below ground surface.

No pentachlorophenol was detected in any soil sample from the Eastern Storage Yard. Polynuclear Aromatic Hydrocarbons (PAH)s, which are creosote related chemicals, and other metals are present in Eastern Storage Yard soils at concentrations below the most stringent applicable RBCs.

#### **Potential Remedial Alternatives**

Baxter proposed soil capping as an interim remedial action for the Eastern Storage Yard as a method for eliminating occupational exposure to arsenic contaminated soil and eliminating the potential for the generation of wind blown dust from the area. Since the cap proposed by Baxter had the potential to stand as the permanent remedy for this portion of the site, DEQ conducted its evaluation of the remedy as part of a range of remedial alternatives including no action, soil excavation/removal, soil capping, and asphalt capping.

In order to determine whether capping was the appropriate alternative for the Eastern Storage Yard, DEQ considered capping and the other four alternatives using five balancing factors, which include the following: effectiveness, long term reliability, implementability, risk of implementation, and cost. The table presented on the next page presents DEQs evaluation of the alternatives.

As Table 1 illustrates, Soil Capping with institutional controls is as effective as asphalt capping or excavation. Soil Capping has good long term reliability if the cap is regularly inspected and maintained, although not as good as removal. All three alternatives are implementable. However, implementation risk, primarily driven by the generation of dust during excavation activities, for excavation is higher than the other alternatives. Soil Capping is less than half the cost of asphalt capping and less than 1/3 the cost of excavation.

DEQ has determined the benefit in long term reliability of excavation over soil capping is outweighed by risk of implementation and expense of excavation, given that all

alternatives are equally protective. Therefore DEQ recommends soil capping with institutional controls as the preferred cleanup alternative for the site.

### **Soil Capping**

The remedy proposed by Baxter consists of placing a geotextile fabric over the east 11 acres of the site and then placing two layers of fill over that, a 6-inch layer of compacted soil overlain by a 6-inch layer of compacted crushed rock. Upon completion of the cap, a fence will be placed around the capped area to ensure that inventory storage or site operations no longer occur in the East Storage Yard.

The long term effectiveness of this remedy hinges on two key factors, whether or not the cap is maintained, and whether or not treated timbers or poles are stored on the capped area in the future. Therefore, a key element of this remedy will be a deed restriction requiring regular inspection and maintenance of the cap and requiring that this portion of the site no longer be used for site operations or material storage.

Taking into account any formal comments received during the public comment period, DEQ will prepare an Easement and Equitable Servitude (EE&S), which will include the following general considerations:

1. The cap will be regularly inspected and maintained under a site management plan (to be developed by Baxter) forever.
2. No site operations aside from vehicular parking will be allowed on the capped portion of the site without DEQ authorization.
3. A health and safety plan, part of the site management plan, will be followed whenever Baxter or future property owners breach the cap for utility work or construction.
4. DEQ will be notified of work that could breach the cap.
5. Other standard considerations such as notification of property sale, notice of zone change, DEQ access to the property, etc, will be included in the EE&S.

### **Conclusions and Recommendations**

The proposed soil cap is protective of human health and meets the general requirements for a removal action as defined in OAR 340-122-0070. In addition, the proposed cap was evaluated under the general requirements for remedy selection for a feasibility study. DEQ approves implementing the proposed action.

### **Public Comment**

Public comment was received during the public comment period. The public comments that were received fell into two general categories, sustentative issues that are already addressed by DEQ's evaluation process, and concerns that are outside the authority of Oregon's cleanup rules. Copies of DEQ's response to public comment is attached to this document.

**Table 1 – Evaluation of Remedial Alternatives**

Alternative	Effectiveness	Long-Term Reliability	Implementability	Implementation Risk	Reasonableness of Cost
No Action	Not effective	Not reliable	Implementable	NA	NA
Removal	Very effective, removes all shallow soils posing an unacceptable risk to on-site workers and which could produce fugitive dust	Very reliable as all shallow impacted soil is gone.	The site is open, flat, and unpaved, with good access. Impacted soils are shallow. This alternative is implementable.	Dust generation during excavation activities would have to be controlled. Cleanup worker exposure to impacted soils would need to be controlled by using personal protective equipment and properly trained personnel.	Removing the risk by excavating surface soils would require excavation of 10.7 acres of site to a depth of approximately 1 foot for a total of approximately 17,000 cubic yards of contaminated soil. Disposal of these soils and subsequent fill activities would cost approximately 2.9 million dollars.
Asphalt Capping	Very effective. Eliminates surface exposure and the potential for wind blown dust. This remedy would not be effective at limiting exposure by future construction or excavation workers to contaminated soils, which would need to be controlled using safe work practices under a soil management plan.	Reliable, however it requires regular inspection and maintenance. A deed restriction requiring regular inspection and maintenance would be required, as would a soil management plan.	There are no barriers to implementation of site paving.	Risks of implementation include minor dust generation during construction and direct contact for the construction workers.	Cost for grading, sub-base fill, and grading for a 10.7-acre site are approximately 1.7 million dollars.
Soil Capping	As effective as asphalt capping at limiting exposure to on site workers and wind-blown dust, with the same limitations and conditions	A soil cap is reliable in the long term, as long as it is not breached. Soil capping requires regular maintenance under a deed restriction.	There are no barriers to implementation of site paving.	Risks of implementation include dust generation during construction and direct contact for the construction workers.	The cost of implementing a soil capping approach utilizing a geotextile membrane and 12 inches of fill is approximately \$800,000.

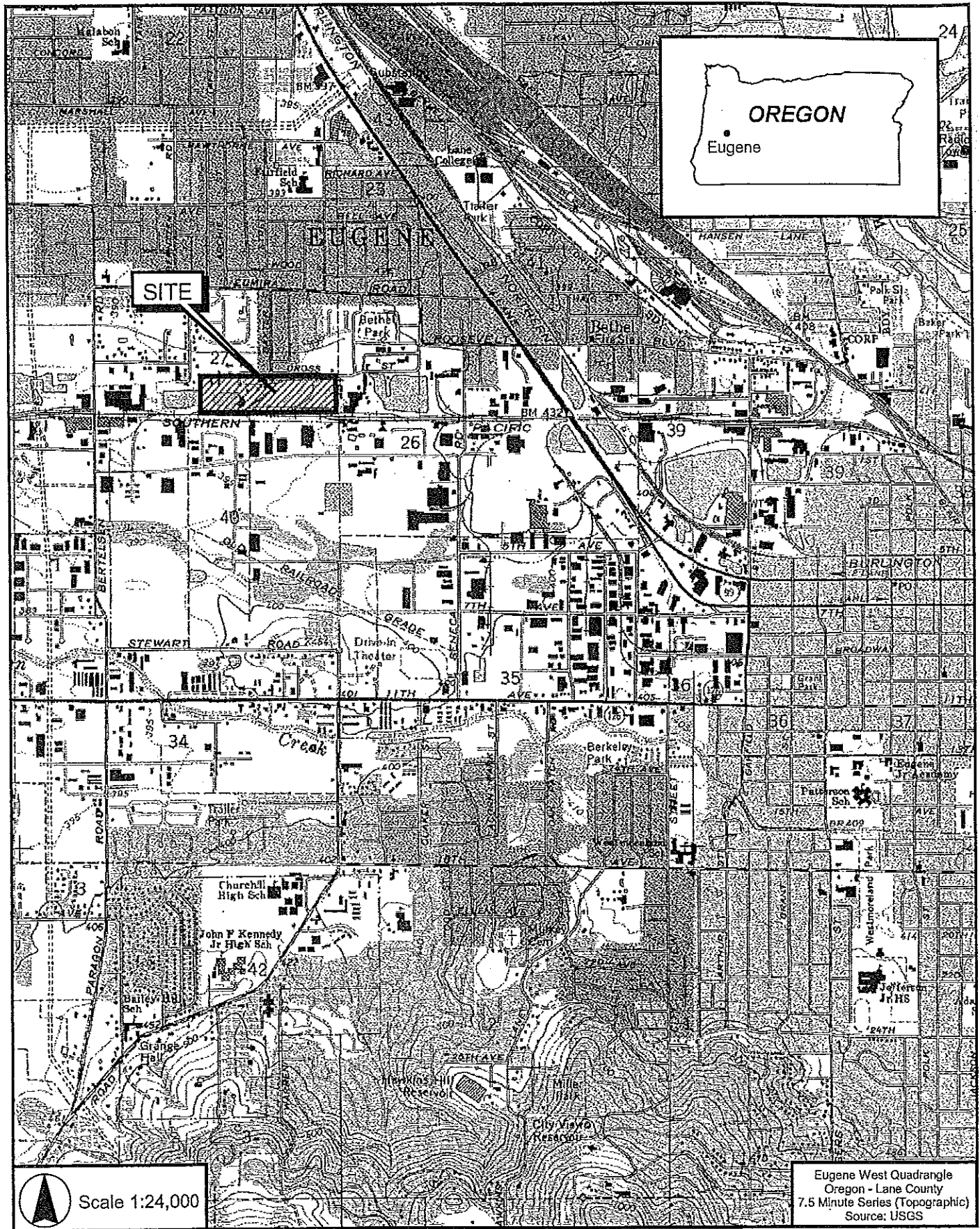
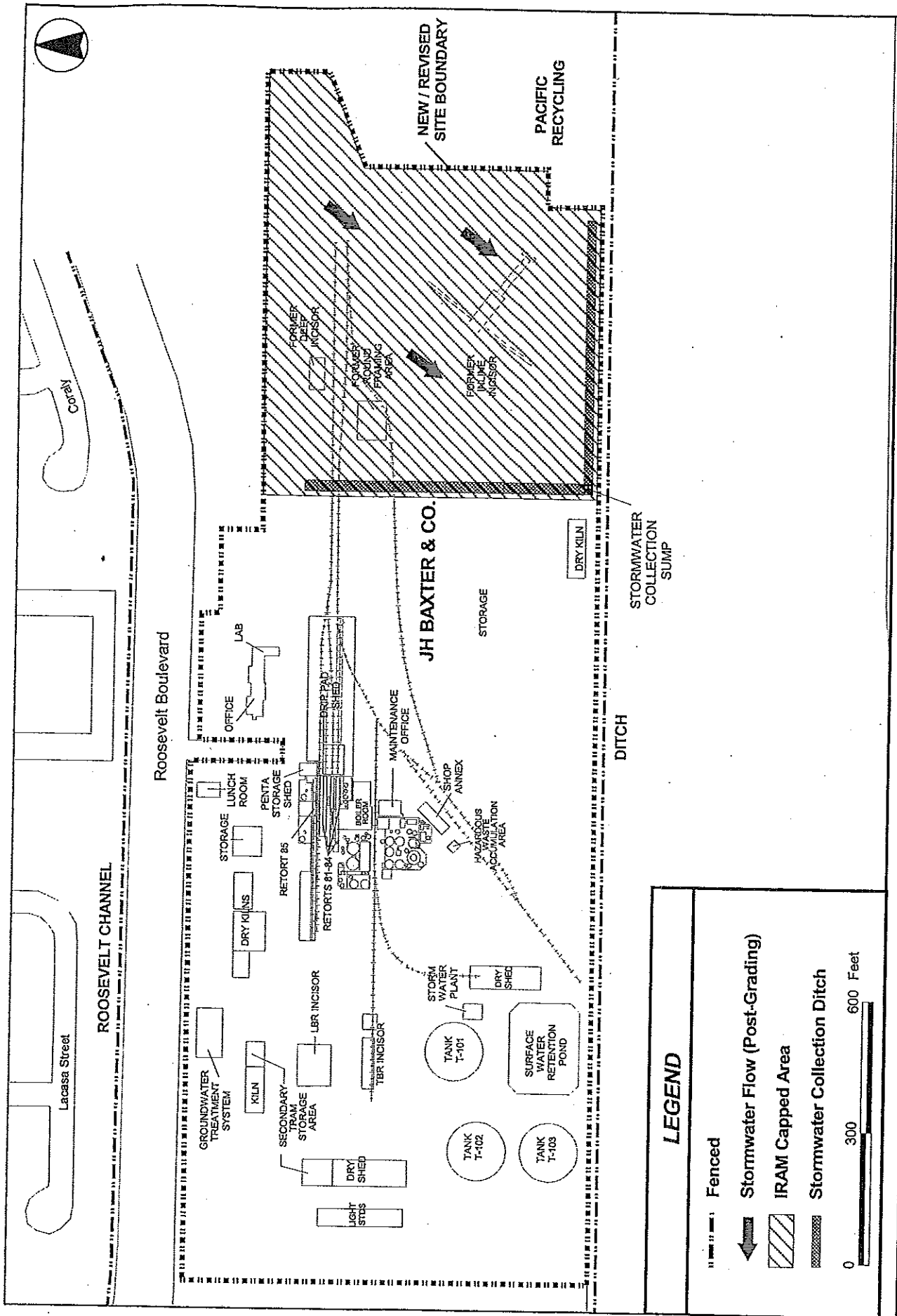


Figure 1. Site Vicinity Map - J.H. Baxter - Eugene, Oregon



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**LEGEND**

- Fenced
- Stormwater Flow (Post-Grading)
- IRAM Capped Area
- Stormwater Collection Ditch

0 300 600 Feet

Figure 2. Facility Detail Map - JH Baxter - Eugene, Oregon

