From: Mark Yeager

To: Condit, Jeffrey G.; Liz Irish; CRONEY Vance M; VERRET Greg J; WILLIAMS Inga; Doyle, Holly; Ginny Lucker;

NICHOLS Darren; Benton County Talks Trash Sam Imperati; Edward Pitera; Catherine Biscoe

Subject: Fwd: PC-83-07 Analysis Example

Date: Thursday, January 5, 2023 8:23:36 AM

Attachments: PC-83-07 Analysis .docx

PC-83-07-C(2) DEO Letter.pdf

PC-83-07-C(1) BOC FINDINGS AND ORDER.pdf

PC-83-07-C(3) pq 3-8 Tross SITE DEVELOPMENT PLAN.pdf

PC-83-07-C(2) pg 11-29 STAFF REPORT.pdf

**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello all - on behalf of the Land Use sub-subcommittee (Ed, Catherine and Mark), I sent this December 9 email to Sam with the attached analysis and supporting documents.

Sam has asked me to forward this to you now for your review.

Thanks

Cc:

Mark Yeager

----- Forwarded message -----

From: Mark Yeager < mayeager@gmail.com >

Date: Fri, Dec 9, 2022 at 9:16 AM Subject: PC-83-07 Analysis Example

To: Sam Imperati < samimperati@icmresolutions.com >, Edward Pitera

<ewpitera25@gmail.com>, Catherine Biscoe <catherinerae17@yahoo.com>,

<br/>
<br/>
bentoncountytalkstrash@co.benton.or.us>

Hi Sam - Catherine, Ed and I have worked together on the attached analysis of the PC-83-07 as an example as to the importance of reviewing the substantive requirements for land use decisions relevant to the landfill properties.

I am attaching a narrative Word document as well as several supporting document attachments for you to review and distribute to the rest of our subcommittee and others as appropriate.

Please let me know if you have any questions.

Thank you,

Mark Yeager

December 9, 2022

Hi Sam -

We (Catherine, Ed and Mark) need a broader discussion with other subcommittees and possibly the larger Workgroup before we can move toward completing our review regarding compliance with the substantive requirements of some past land use decisions.

Many of the land use documents we reviewed are structured with a land use decision that addresses both administrative matters like who is signing the decision, under what authority, etc., as well as substantive "conditions" the applicant must meet. In these cases, it is relatively easy to make a meaningful decision on whether the applicant complies with the substantive requirements or conditions. An example is CP-74-01 that addresses establishing the landfill and the geographical area it was to serve.

In other cases, the land use decision contains what needs to be done regarding the administrative matters while the substantive requirements or applicant commitments are contained in documents that are adopted as part of the entire package but are not specifically called out on the face page of the decision. In contrast to CP-74-01, in PC-83-07 for example, many of the "conditions" are mechanical like "1. Cross reference the narrative and the map in both documents." What is missed by just looking at the "condition" is the substantive information concerning the Site Plan, slopes and terracing, County oversight, leachate management, visual screening, land reclamation, and recycling.

A more limited interpretation of compliance with land use actions that only includes review of the administrative conditions of development or approval does not allow for the proper assessment of compliance with the substantive land use requirements.

A more detailed analysis is provided below in support of the request to ensure that we include the review of substantive requirements included in a land use approval as part of our work in preparing the Compliance with Past Land Use Actions and Their Status document of the A2 subcommittee is presented below. The example is PC-83-07.

For this review, we looked at the PC-83-07 BOC Notice of Decision, the staff report and the applicant's documents submitted in support of the land use request. Beginning with the BOC Notice of Decision (attached for reference):

Reference PC-83-07 - Board of Commissioners Findings of Fact Conclusion of Law and Order dated June 15, 1983 (excerpted from PC-83-07(C)(1) file page 25 (italics added):

- "4. The *Board expressly adopts as findings the following documents*, which are on file in the Benton County Community Development Department located at 180 Fifth Street, Corvallis, Oregon:
- a. Staff Report; File No. PC 83-7, including Appendices 1, 2, and 3
- b. Site Plan Review for the Coffin Butte Landfill
- c. Application of Valley Landfills, Inc.

- d. Background Review for the Proposed Coffin Butte Landfill Expansion
- e. State Planning Goal Exception for Coffin Butte Landfill"

Continuing with that review of documents, we looked at the ORDER portion of the BOC decision (italics added):

PC-83-07 Board of Commissioners ORDER (excerpted from page 3 of the Order also shown on page 25 of PC-83-07(C)(1):

"Based on the above, it is ORDERED hereby as follows:

The requests by Valley Landfills, Inc. for Comprehensive Plan Text and Map Amendments, Zoning Ordinance and Zoning Map Amendments and a Site Development Plan approval, as indicated specifically in the Staff Report (paragraph 4a above), are hereby Approved subject to the following conditions:...."

The document goes on to list 13 specific conditions to be met. These conditions are made up of the Planning Commission recommended conditions plus those submitted to the County by DEQ on April 13, 1983 (shown on pages 8 and 9 of PC-83-07(C)(2)).

Then we looked to the Staff Report that recommended conditions be included to require the applicant to update documents to provide more details as to what was going to be done should the application be approved.

PC-83-07 – STAFF REPORT pages 7 and 8 – "That the Planning Commission recommend to the Board of Commissioners approval of the Coffin Butte Landfill Site Development Plan based on the findings contained in the staff report and subject to the following Conditions of Development" (excerpted from PC-03-07(C)(2) pages 11-29.

- "1. Cross reference the narrative and the map in both documents.
- 2 Expand the narrative statement, Section (1. a. ii), on reclamation to include the physical configuration of the completed landfill areas and. method of maintenance of the proposed pasture uses. Include a statement regarding the effects of methane and internal heat generation on the long term maintenance of the pasture and include irrigation plans if proposed.
- 3. Describe in more detail in the narrative, the method of screening: include a description of the location, height, width, depth and physical composition of the berm; and include the type and location of vegetative screening; and include a statement regarding the long term maintenance of the berm and vegetative screens.
- 4. Include in the narrative the anticipated chemical composition of any leachate material to be used for irrigation south of Coffin Butte Road; and include documentation that the material to be utilized as irrigation meet federal and state standards for any run- off that may leave the property lines.

- 5. Include in the narrative a review of the Environmental and Operational Factors in Art. XXX. 05. A. 1.(f) for the approximately 10 acres proposed' for addition to the landfill area.
- 6. Provide a detailed reclamation plan that sets form the anticipated physical characteristics of the "terracing" including an average height and width of the terracing, provide documentation that the site is physically available to be reclaimed in this manner.
- 7. Submit for review by the Development Director a plan detailing the proposed method Valley landfills shall use to protect the small ponds found on the Northeast corner of the property."

Finally, since the Site Plan Review was specifically adopted by the BOC, we looked to that document to provide additional substantive requirements applicable to this land use request.

The Site Development Plan for the approved land use is contained in the document titled SITE PLAN REVIEW FOR THE COFFIN BUTTE LANDFILL – excerpted from page 1 of Jeffery R. Tross document in the record for PC-83-07. See pages 3-8 of file PC-83-07(C)(3) – italics added.

"This report is provided in conformance with the requirement of the "Site Development Plan" section of the Landfill Site Zone for a narrative description of the Coffin Butte Landfill site plan and operating characteristics. This report includes the information required by Conditions of Development Nos. 1 - 7 contained in the Staff Report and adopted by the board of Commissioners."

This analysis clearly demonstrates the need to look beyond the administrative conditions associated with any land use approvals to ensure that there is a clear understanding of substantive requirements or commitments associated with a particular land use application and/or approval. In this way, the work of evaluating the status of prior land use requests and compliance with substantive requirements can be completed.

The documents that have been used as reference materials are included as attachments.

Submitted by:

Mark Yeager Ed Pitera Catherine Biscoe Draft Memo

1/3/2022 Rev. 1

Member Chuck Gilbert

Dynamics of

Coffin Butte Landfill

**Transfer Station** 

A viable path forward by the interaction of a complimentary intermodal transfer station within the dynamics of the landfill sustainable material management program

This memo is a reminder that the data and reporting here within does not represent a consensus of the BCTT Committee, but is submitted as draft information for further discussion, if the BCTT Committee or its sub-committees elect.

An intermodal transfer station is a regional disposal site's ancillary facility for providing a multimodal transportation gateway for inbound and outbound municipal solid waste material resources, including but not limited to, sustainable materials management of solid waste, recyclables, non-recyclables, or reuse waste for energy recoverable byproducts, whether shipping upstream or downstream from the transfer station location in a circular economy.

The intermodal transfer station provides an economical, efficient, and safer way to ship material resources or byproducts in intermodal containers to local, national, and international markets as well as to other regional sanitary landfills east of the Cascades.

Both the City of Seattle and Metro's St. Johns facility in Portland use transfer stations to load intermodal containers for shipment of solid waste to regional landfills east of the cascades. Intermodal containers can be shipped on highway, railway, and waterway modes of transportation directly to market locations without unloading and transferring the cargo from one mode of transportation to another.

The intermodal transfer station requires application to the Department of Environmental Quality for a solid waste permit to cover operations of the transfer station and material recovery.

Disposal site means land and facilities used for the disposal, handling or transfer of, or energy recovery, material recovery and recycling from solid wastes, including but not limited to dumps, landfills, sludge lagoons, sludge treatment facilities, disposal sites for septic tank pumping or cesspool cleaning service, transfer stations, energy recovery facilities, incinerators

for solid waste delivered by the public or by a collection service, composting plants and land and facilities previously used for solid waste disposal at a land disposal site. ORS 459.005 (8)

Transfer station means a fixed or mobile facility other than a collection vehicle where solid waste is deposited temporarily after being removed from the site of generation but before being transported to a final disposal location. ORS 459.005(27).

## 23.010 Purpose.

In order to protect the health, safety and welfare of the people of Benton County and to provide a solid waste management program, it is declared to be the public policy of Benton County to regulate solid waste management to:

- (1) Provide for a coordinated solid waste management program and administration with cities within Benton County and with other counties or cities under existing and future regional programs.
- (2) Provide for cooperation and agreements between Benton County and cities and other counties involving joint or regional franchising of solid waste service.
- (3) Provide standards, regulations and franchising to ensure the safe and sanitary accumulation, storage, collection, transportation and disposal or resource recovery of solid wastes and ensure maintenance of solid waste collection, resource recovery and disposal service.

"Holder" means a person to whom the Board has granted a franchise or permit. BC Chapter 23.005 (8) definitions.

23.220 Recycling or Reuse Franchise or Permit Requirements.

The Board shall specify which of the collection franchise requirements, as set forth in BCC 23.210, shall apply to specific permits. In addition:

- (1) The Board may include recycling or reuse service or the education or promotion of such service in a collection franchise.
- (2) In lieu of a franchise, the Board may issue a limited permit for specified service and subject to such terms and conditions as the Board may impose to carry out the policy, purpose and findings.
- (3) Issuance of a recycling or reuse franchise or permit by the Board is discretionary. The grounds for issuance shall be compliance with the requirements specified by the Board. [Ord. 1, adopted March 31, 1971; Ord. 23, adopted December 17, 1980; Ord. 85-0023; Ord. 86-035]

. . . . . .

The dynamics of Coffin Butte landfill is contingent on estimating a multitude of cyclical variables in order to balance solid waste materials byproducts with solid waste reuse and disposal.

These arrays of variables are the material characteristics of refuse which effect varying solid waste density volumes of material waste being placed in the landfill, and the population growth in Benton County and neighboring Counties and municipalities which average 4.40 pounds of daily waste including within 1.9 pounds of recycling per person with the increase in population growth each year (EPA 2018 data).

Also, cyclical construction starts of homes and businesses produce construction material byproducts that end in portions of recycled material and/or waste material that is disposed into the landfill.

Compounding the dynamics further are unpredictable acts of God, in particular fire and storm events, as well as highway, railway, and waterway perils that produce added waste stream material disposed into the landfill.

Questions: If an intermodal transfer station materializes,

- a. Can the issues of a franchise permit for an intermodal transfer station be compliant with BC 23.220 by a qualified third party compliant with BC 23.210 (1) (2), or
- b. Can the intermodal transfer station be enjoined with the current Holder (hauler) franchise agreement (discretionary), or
- c. Can the intermodal transfer station be enjoined with the current disposal site agreement party (discretionary)?

Of paramount concern, is the intervening dynamics of the Regional Coffin Butte Landfill cell construction that appears to perpetuate a linear regression analysis model of diminishing returns.

Within the above Benton County Codes, a viable reserve path forward by the interaction of a complimentary intermodal transfer station within the dynamics of the Coffin Butte landfill may best serve the initial equilibrium needed for a sustainable material management program in Benton County.

5-48615-83

#### BEFORE THE BENTON COUNTY BOARD OF COMMISSIONERS STATE OF OREGON

IN THE MATTER OF AN AMENDMENT TO THE BENTON COUNTY COMPREHENSIVE PLAN REGARDING CERTAIN POLICIES RELATING TO THE COFFIN BUTTE LANDFILL, A CHANGE IN THE COMPREHENSIVE PLAN MAP FOR THE AREA TO LANDFILL SITE, AM AMENDMENT TO THE ZONING ORDINANCE TO INCLUDE THE LANDFILL SITE PARCEL, AMD A SITE DEVELOPMENT PLAN REVIEW FOR APPROXIMATELY 266 ACRES DESIGNATED BY THIS ACTION AS L/MDFILL SITE. AREA IN QUESTION SO DESCRIBED AS FOLLOWS: To the West of Highway 99W, North of Coffin Butte Road, T10S, R4W, Section 18, Tax Lot 301, 1106, and 1107; T10S, R5W, Section 13 Tax Lot 1000.

FINDINGS OF FACT CONCLUSIONS OF LAW AND ORDER

I.

#### NATURE OF PROCEEDINGS

This case involves a request of Valley Landfills, Inc. (PC-83-2 and L-83-7) for amendments to the Benton County Comprehensive Plan and Plan Map (Ordinance 251), amendments to the Zoning Ordinance and Zoning Map (Ordinance 261), and a review of the Site Development Plan for an area known as the Coffin Butte Landfill.

On March 8, 1983, the Planning Commission held a duly advertised Study Session to solicit public comment on this proposal. The Planning Commission took no formal action at this study session, but did in fact a citizens in the immediate area and other listen to the concerr interested persons. ff was instructed to address these concerns in the preparation of a Staff Report to be submitted to the Planning Commission at a regularly scheduled public hearing held on April 26, 1983.

Following the duly advertised public hearing held on April 26, 1983 the Planning Commission voted unanimously to amend the Comprehensive I - Findings of Fact/Coffin Butte Landfill W/P 2999/19

GOWALLIS, ONESON STREET TELEPHONE TRY-8888

> 26 Page

1

2 3

4

5

6

7

12

13

14

15

16 17

18

19

20

10 11 12

13 14

15 15

17 18

19

20 21 22

Plan related to solid-waste policies, change the Comprehensive Plan Map to delienate the Coffin Butte Landfill site, amend the Zoning Ordinance to add a specific Landfill Site Zone, and approve the Site Development Plan for the landfill site.

On May 25, 1983 the Board of Commissioners set at a duly advertised public hearing to consider the adoption of Ordinance 251 to amend the Comprehensive Plan Text and Map, and Ordinacne 26I to amend the Zoning Ordinance and Zoning Map.

The Board of Commissioners having considered all of the testimony, both oral and written, and after reviewing the actions of the Planning Commission and a review of the documents submitted in the form of a Staff Report, finds as follows:

#### II.

# Findings of Fact/Conclusions of Law

- 1. The Board finds that various Comprehensive Plan Text Amendments relating to solid waste disposal policies are necessary for the health and welfare of the County, and that the area known as the Coffin Butte Landfill should be clearly sited on the Comprehensive Plan Map.
- 2. The Board further finds that the Zoning Ordinacne must be changed to coincide with the Comprehensive Plan Text Amendments and Map Amendments, and that the Zoning Map must be changed to clearly reiterate that a Landfill Site zone
- 3. The Soard further finds that the Planning Commission actions following a duly advertised public hearing held on April 26,
- Findings of Fact/Coffin Butte Landfill W/P 2999/19

1 2

3

4

1983 unanimously approving five requests as outlined in the Staff Report (p2) Summary of Requests File No. PC-83-7, was taken in accordance with the procedures for public hearings under State law and County Ordinance and that all parties were given adequate public notice of the proceedings.

- 4. The Board expressly adopts as findings the following documents, which are on file in the Benton County Community Development Department located at 180 NW Fifth Street, Corvallis, Oregon:
  - a. Staff Report; File No. PC-83-7, including Appendices 1, 2, and 3
  - b. Site Plan Review for the Coffin Butto Landfill
  - c. Application of Valley Landfills, Inc.
  - d. Background Review for the Proposed Coffin Butte Landfill Expansion
  - e. State Planning Goal Exception for Coffin Butte Landfill

# III. ORDER

Based on the above, it is ORDERED hereby as follows:

The requests by Valley Landfills, Inc. for Comprehensive Plan Text and Map Amendments, Zoning Ordinance and Zoning Map Amendments and a Site Dovelopment Pian approval, as indicated specifically in the Staff Report (paragraph 4a above), are hereby Approved subject to the following conditions:

- 1. Cross reference the narrative and the map in both documents.
- 2. Expand the narrative statement, Section (1.a.ii), on reclamation to include the physical configuration of the
- Findings of Fact/Coffin Butte Landfill W/P 2999/19

CDUNTY COUNTY COUNSE, 180 N.W. Str. ST. AALLIS. ONESCON 973,00

21

22

23 25 25

Page

completed landfill areas and method of maintenance of the proposed pasture uses. Include a statement regarding the effects of methane and internal heat generation on the long term maintenance of the pasture, and include irrigation plans if proposed.

- 3. Describe in more detail in the narrative, the method of screening: include a description of the location, height, width, depth and physical composition of the berm; and include the type and location of vegetative screening; and include a statement regarding the long term maintenance of the berm and vegetative screens.
- 4. Include in the narrative the anticipated chemical composition of any leachate material to be used for irrigation south of Coffin Butte Road; and include documentation that the material to be utilized as irrigation meet federal and state standards for any run-off that may leave the property lines.
- 5. Include in the narrative a review of the Environmental and Operational Factors in Art. XXX.05.A.1.(f) for the approximately 10 acres proposed for addition to the landfill
- Provide a detailed reclamation plan that sets form the anticipated physical characteristics of the "terracing" including an everage height and width of the terracing. provide documentation that the site is physically available to be reclaimed in this manner.

- Findings of Fact/Coffin Butte Landfill W/P 2999/19

CORN **МОТИЗА** 

25 26

19

20

Page

1

2

- Submit for review by the Development Director a plan detailing the proposed method Valley Landfills shall use to protect the small ponds found on the Northeast corner of the property.
- 8. The current DEQ operational permit will expire on January 31, 1984. Valley Landfills, Inc., has been requested to submit an updated, long-term leachate control plan as part of the permit renewal process. This plan must contain provisions for a leachate storage facility so leachate irrigation will not occur on pasture lands from November 1 through May 1 of each year. The control plan must also provide for a soil study that designates present and future leachate irrigation areas. This plan must show that the amount of irrigation area available is compatible with future leachate generation volumes so metal or mutrient accumulations in the soils will remain far below any toxicity levels.
- 9. As the site expands eastward, additional monitoring wells will be required. Depending on DEQ budget limitations, the permittee may have to share in the responsibility for sampling and monitoring of these wells.
- 10. Screen the landfill operation with fencing or berms so it cannot be seen from the County Road or adjacent properties.
- 11. Daily cover of refuse with earth is not possible at this site due to the clay soils. The current (and future) permit addresses requiring daily compaction of refuse and require exposed refuse areas to not exceed 2 acres during the periods
- 5 Findings of Fact/Coffin Butte Landfill W/P 2999/19

THE STATE OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY.

of October 15 to June 1 and to not exceed 3/4 of an acre during all other periods. This shall be adhere to.

- 12. Occasionally, leachate seeps through the site berms during heavy rainfall periods. If these occur in the future, a requirement to channel these flows into the leachate collection system within a timely period (i.e., 3 days) may be added.
- 13. DEQ Permits are normally issued for a maximum of 5 years. As part of the permit renewal process, DEQ requires updated operational and construction plans to reflect the current permit period. As such, changes in environmental controls may be required to incorporate new technology into this landfill operation.

Adopted this 15th day of June Signed this 15th day of June

BOARD OF COMMISSIONERS

VOTE Schrock ..

Ross, Chairman

Benton County County Counsel

6 - Findings of Fact/Coffin Butte Landfill W/P 2999/19

25 Page

23

25



# Department of Environmental Quality

Willametta Valley Rogion 895 Summer Street, NE Salem, Oregon 97310

522 S.W. FIFTH AVENUE, BOX 1760, PORTLAND, OREGON 97207 PHONE-15031-229-6696

April 13, 1983

APR 15 1983 DENTON COUNTY PLANNING

. Ms. Carolyn Plemons Benton County Planning Department 180 N.W. 5th st. Corvallis, OR 97330

> SW-Coffin Butte Landfill Solid Waste Permit #306 Docket Request PC-83-7 Benton County

Dear Carolyn:

DEQ considers the Coffin Butte Landfill to be a long-term regional site that is essential to orderly solid waste management in the mid-Willamette Valley area. It is being developed with the best state-of-the-art technology available to meet environmental concerns and federal RCRA criteria.

In regard to Docket Item PC-83-7, we recommend approval subject to the applicant complying with the following:

- The current DEQ operational permit will expire on January 31, 1984. Valley Landfills, Inc., has been requested to submit an updated, long-term leachate control plan as part of the permit renewal pro-This plan must contain provisions for a leachate storage facility or program so leachate irrigation will not occur on pasture lands from November 1 through May 1 of each year. The control plan must also provide for a soil study that designates present and future leachate irrigation areas. This plan must show the amount of irrigation area available is compatible with future leachate generation volumes so metal or nutrient accumulations in the soils will remain far below any toxicity levels.
- As the site expands eastward, additional monitoring wells will be required. Depending on DEQ budget limitations, the permittee may have to share in the responsibility for sampling and monitoring of the wells.
- Site screening of the actual landfill operation has generally been good; however, we agree with some comments you have received regarding screaning of the salvage areas. A requirement to screen these areas with fencing or berms so they cannot be seen from the County Road or adjacent properties is a reasonable request.

Ms. Carolyn Plemons Page 2 April 13, 1983

> 4. Daily cover of refuse with earth is not possible at this site due to the clay soils. The current (and future) permit addresses this by requiring daily compaction of refuse and requiring exposed refuse areas to not exceed 2 acres during the periods of October 15 to June 1 and to not exceed 3/4 of an acre during all other periods.

1 . 1 . 27

- 5. Occasionally, leachate seeps develop through the site berms during heavy rainfall periods. These generally cannot be predicted, and cannot be properly corrected until summer. If these occur in the future, a requirement to channel these flows into the leachate collection system within a timely period (i.e., 3 days) is a reasonable request.
- 6. DEQ permits are normally issued for a maximum of 5 years. As part of the permit renewal process, we required updated operational and construction plans to reflect the current permit period. As such, changes in environmental controls may be required to incorporate new technology as it becomes available.

Overall, we feel Valley Landfills, Inc., has been doing a good job with managing the Coffin Butte Landfill. Incorporating the above comments as a condition of your approval will complement the actions of DEQ and should result in a continued environmentally sound operation at Coffin Butte.

Thank you for the opportunity to comment. If you need additional input, please call me at 378-8240.

Sincerely,

Gary Resser, R.S.

Assistant Regional Manager

GWM/wr

cc: Bill Webber, Valley Landfills, Inc., P.O. Box 1, Corvallis 97330

oc: Benton County Health Dept., 530 NW 27th, Corv.llis 97330

cc: DEQ Solid Waste Division

JEFFREY R. TROSS Land Planning and Development Consultant P.O. Box 621, Salem, Oregon 97308 (503) 370-8704

#### SITE PLAN REVIEW FOR THE COFFIN BUTTE LANDFILL

This report is provided in conformance with the requirement of the "Site Development Plan" section of the Landfill Site Zone for a narrative description of the Coffin Butte Landfill site plan and operating characteristics. This report includes the information required by Conditions of Development Nos. 1 - 7 contained in the Staff Report and adopted by the Board of Commissioners. The information is presented in the format established in the Zone text:

### 1. Criteria for Review

### a. Narrative

## i. Adjacent Land Use

The Coffin Butte Landfill is surrounded by wooded slopeland, small farm or woodlot tracts, commercial agricultural lands and scattered rural residential acreages. The existing landfill has had no significant impact, and has imposed no restrictions upon the use of the surrounding resource lands. Most of the nearby rural residences are located north of Coffin Butte and have not been adversely affected by the landfill or its operations. The residences have been developed subsequent to the landfill. A few residences are located to the west and south of the landfill, but have experienced no significant adverse impact as a result of landfill operations. The location and distribution of residences in the vicinity of the Coffin

Butte Landfill is displayed on the large site location map presented at the public hearing.

## ii. Reclamation (Conditions No. 2 and 6)

When completed the present landfill area (see site development map) will appear as a low terrace rising from Coffin Butte Road into the site. The expansion area, labelled "Additional Landfill Disposal Area" on the site plan, will consist when completed of a series of terraces progressing up the lower south slope of Coffin Butte. Each terrace in the expansion area will consist of a +/- 12 ft. high vertical "confinement berm" sloping 3/1, and a 10 - 20 ft. wide horizontal surface at 2% slope. The overall slope of the terraced hillside will be similar to the existing slope. An upgradient cutoff drainage system (see site plan) will be provided to intercept seasonal surface drainage and route it around the new fill area. The feasibility of reclaiming the site in this manner is discussed in the attached letter dated May 23, 1983, prepared for Valley Landfills by Sweet, Edwards & Assoc., geological consultants.

All disposal areas, including the terraces, will be reclaimed for pasture. Portions of this landfill property including the completed disposal area (see site plan), as well as some of the outside lands in the vicinity of the landfill, are carrently used for this purpose. The area within the landfill reclaimed for pasture will be maintained by periodic regrading and replanting as required to compensate for settling. Otherwise, maintenance will consist of farming methods commonly used for pastureland.

The completed disposal areas will be covered by a minimum eight inch clay cap covered by twenty-eight inches of soil. The depth of the cover will minimize the effect of methane on the pasture grasses. Similarly the cover crop should not be affected by internal heat generation. Rather, warm subsurface temperatures have proved beneficial to root development.

There are two existing irrigation areas shown on the site plan map. An existing lechate irrigation area is shown within the active disposal area, which is within the labelled "present landfill area." Another irrigation area is shown within the labelled "Existing Development Area" east of the present landfill area. A leachate irrigation pump is shown at the west end of the leachate lagoon. Irrigation will be conducted by means of buried, fixed-head irrigation pipes that are already in place. During dry weather leachate will be applied to the pastures as the soil field capacity permits. During inclement weather leachate will be irrigated back through the refuse. All irrigation practices and application rates will conform to DEQ standards.

The land south of Coffin Butte Road, labelled "Future Development Area" on the site plan, will be used for leachate irrigation as needed and as a tree farm for growing screening plants. Leachate irrigation will be done at an agronomic rate. Run-off onto adjacent properties is not permitted by DEQ regulations.

The chemical composition of the leachate at Coffin Butte has been analysed by Waterlab, Inc. of Salem. The analysis is attached to this report. Leachate applied to the land south of Coffin Butte Road is expected to be of similar composition to the sample tested. (Condition No. 4).

A leachate monitoring system consisting of nine on-site monitoring wells will be provided. The wells are scheduled to be monitored by DEQ on a quarterly basis.

Reclamation of the landfill in the manner described will be compatible with the existing predominant open space and resource lands characteristics of the adjacent and surrounding lands and the current uses of these lands, and will be consistent with the expected future use of these lands as indicated by the existing farm and forest land use designations.

## iii. Screening (Condition No. 3)

Additional screening will be provided in keeping with the current site screening program used at the landfill. This program consists of a keyed berm with conifers planted 10' on center along Coffin Butte Road from 99W to the landfill entrance road, and similar plantings extending north along 99W from Coffin Butte Road to the north landfill property line.

The permanent, fixed, keyed berm is represented on the site development plan by the solid black line labelled "Approximate Solid Waste Disposal Boundary." As shown, the berm encompasses the present landfill area and the existing development area. The berm is 10 - 12 feet high, 10 feet wide at the top and 60 - 70 feet wide at the base, and has an outside slope of 3/1. The depth of the key is three feet. The berm is composed of low permeability materials from on-site sources. The berm has been hydroseeded, and will be grazed.

Screening plants will consist of trees from the tree farm owned by Valley Landfills on their land south of Coffin Butte Road. Initial height of the plantings will range from 8 - 10 feet. Additional plantings can be made on the terraces to screen disposal operations on the slopes, as needed. The plantings will receive ongoing maintenance by the landfill operators.

- iv. Access to the site will consist of 99W to Coffin Butte Road, as at present.
- v. Other Information Required by the Development Director (Conditions No. 5 and 7)

A review of the Environmental and Operational Factors of Art. XXX .05.A.1 is contained in a report titled <u>Coffin Butte Sanitary Landfill Expansion Plan</u> prepared by Randy Sweet, Geologist, and Regional Consultants, Inc. in Oct., 1977. This report was submitted to the Benton County Commissioners, Health Department, and Solid

Waste Advisory Committee. A copy of this report will be made available to the Development Department if requested.

The small ponds will remain as at present for the next ten years. At the end of this period the use of the ponds and surroundings will be reevaluated and, if anything is to be done, state of the art engineering practices will be employed in conformance with the standards in effect at that time. A modified site development plan will be submitted for County review when appropriate.