Consultant Outreach Workshop

King County Solid Waste Division (SWD)
Purpose of the Workshop

- Share information on the current and upcoming capital projects
- Discuss Cedar Hills Landfill Site Development Project
- Questions and Answers
Getting to Know SWD Product Families

- **Waste Prevention**: Through continuous training and outreach programs
- **Resource Recovery**: Recycling program and Landfill Gas utilization
- **Waste Disposal**: Disposing refuse in an engineered Sub-Title D compliant landfill
Vision: A diverse and dynamic community with a healthy economy and environment where all people and businesses have the opportunity to thrive.

Mission: King County government provides fiscally responsible, quality-driven local and regional services for healthy, safe, and vibrant communities.
Vision and Mission of the Solid Waste Division

**Vision:**
We achieve zero waste of resources and enhance the environment through active collaboration and innovation.

**Mission:**
We bring the best people together to deliver value to our customers and stakeholders and continuously improve waste prevention, resource recovery and waste disposal.
Solid Waste Division: New Organizational Structure

- Pat McLaughlin
  Division Director
- Kevin Kiernan
  Assistant Division Director
- Diane Yates
  Intergovernmental Relations
- Roxanne Malatesta
  Confidential Secretary

Jeff Galsford
Recycling and Env. Services
  - PROGRAMS
    - Product Stewardship
    - Green Building
    - Hazardous Waste
    - Illegal Dumping
    - Junk Vehicles
    - Special Waste

- OUTREACH
  - City Grants
  - Schools
  - Eco Consumer

- T.B.D.
  Administrative Assistant

- Pre/Post Design
  Technical Support

- Environmental Monitoring and Compliance

- Bill Berni
  Operations Manager
  - Transfer/Transport
    Scale Operators
    TSO's Drivers
  - Landfill Equip. Operators Shop
  - Support Administration

- Linda Bremer
  Interim Enterprise Services Manager
  - Customer Service
  - Project Management
  - Contract Management
  - Accounts Payable
  - Accounts Receivable Stores

- Aaron Jeide
  Interim Human Resource Manager
  - Human Resources
  - Labor Relations
  - Safety
  - Payroll

- T.B.D.
  Strategy, Forecast, & Performance
  - Communications
  - Graphics
  - Web
  - Records
  - Performance and Process Management
  - Budget
  - Line of Business
  - Forecasting
  - Rate Studies

- Waste Prevention
- Resource Recovery and Waste Disposal
- Support Functions
- Business Development
Cedar Hills Regional Landfill: Landfilling Areas
# Current Capital Projects in CHRLF

<table>
<thead>
<tr>
<th>Capital Projects</th>
<th>Time Line for Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Control Systems Modification System (ECSM)</td>
<td>2012-2019</td>
</tr>
<tr>
<td>Area 7 Closure Project</td>
<td>2011-2019</td>
</tr>
<tr>
<td>Area 8 Development and facility Relocation Project</td>
<td>2012-2020</td>
</tr>
<tr>
<td>Noise Emissions Study</td>
<td>2015</td>
</tr>
<tr>
<td>Flare Station Renovation</td>
<td>2015</td>
</tr>
<tr>
<td>Construction of a New Flare Station</td>
<td>2016</td>
</tr>
</tbody>
</table>
## Current Capacity Analysis (Conservative Approach)

<table>
<thead>
<tr>
<th>Year</th>
<th>Tonnage projected</th>
<th>Capacity Added/Remaining (Tons)</th>
<th>Capacity Added (Tons)</th>
<th>Comments</th>
<th>Cumulative waste Tonnage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>823,500</td>
<td>2,725,453</td>
<td></td>
<td></td>
<td>2,464,542</td>
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<tr>
<td>2016</td>
<td>833,900</td>
<td>1,891,553</td>
<td></td>
<td></td>
<td>3,298,442</td>
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<tr>
<td>2017</td>
<td>849,700</td>
<td>1,041,853</td>
<td></td>
<td>Lift # 6 capacity A7 ends (Last Lift (Lift # 7 remains open)</td>
<td>4,148,142</td>
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<tr>
<td>2018</td>
<td>865,300</td>
<td>6,551,553</td>
<td>6,375,000</td>
<td>Area 8 planned capacity</td>
<td>5,013,442</td>
</tr>
<tr>
<td>2019</td>
<td>883,400</td>
<td>5,491,600</td>
<td></td>
<td></td>
<td>5,896,842</td>
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<tr>
<td>2020</td>
<td>892,600</td>
<td>4,599,000</td>
<td></td>
<td></td>
<td>6,789,442</td>
</tr>
<tr>
<td>2021</td>
<td>901,500</td>
<td>3,697,500</td>
<td></td>
<td></td>
<td>7,690,942</td>
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<tr>
<td>2022</td>
<td>905,500</td>
<td>2,792,000</td>
<td></td>
<td></td>
<td>8,596,442</td>
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<tr>
<td>2023</td>
<td>907,500</td>
<td>1,884,500</td>
<td></td>
<td></td>
<td>9,503,942</td>
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<tr>
<td>2024</td>
<td>905,900</td>
<td>978,600</td>
<td></td>
<td>Last lift capacity A8 ends</td>
<td>10,409,842</td>
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<tr>
<td>2025</td>
<td>899,200</td>
<td>4,072,400</td>
<td>3,993,000</td>
<td>Remaining lifts Areas 5, 6, and 7. Capacity for A 5 &amp; 6 from 2013 Annual</td>
<td>11,309,042</td>
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<tr>
<td>2026</td>
<td>891,900</td>
<td>3,180,500</td>
<td></td>
<td></td>
<td>12,200,942</td>
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<tr>
<td>2027</td>
<td>879,700</td>
<td>2,300,800</td>
<td></td>
<td></td>
<td>13,080,642</td>
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<tr>
<td>2028</td>
<td>867,000</td>
<td>1,433,800</td>
<td></td>
<td></td>
<td>13,947,642</td>
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<tr>
<td>2029</td>
<td>853,700</td>
<td>4,337,800</td>
<td>2,904,000</td>
<td>Estimated settlement gain</td>
<td>14,801,342</td>
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<tr>
<td>2030</td>
<td>839,900</td>
<td>3,497,900</td>
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<td>15,641,242</td>
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<tr>
<td>2031</td>
<td>819,600</td>
<td>2,678,300</td>
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<td></td>
<td>16,460,842</td>
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<tr>
<td>2032</td>
<td>832,200</td>
<td>1,846,100</td>
<td></td>
<td></td>
<td>17,293,042</td>
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<tr>
<td>2033</td>
<td>844,900</td>
<td>1,001,200</td>
<td></td>
<td>Landfill Site Capacity ends</td>
<td>18,137,942</td>
</tr>
</tbody>
</table>

*Landfill Site Capacity ends*
<table>
<thead>
<tr>
<th>Scenarios</th>
<th>Assumptions</th>
<th>Forecasted Air Space Needs (Cubic Yard) for Beyond 2040 Life</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scenario # 1</td>
<td>City of Bellevue Stays Area 8 is developed as originally planned with bottom elevation at 520 ft.</td>
<td>&gt; 8.5 million CY</td>
</tr>
<tr>
<td>Scenario # 2</td>
<td>City of Bellevue withdraws from CHRLF disposal system. Area 8 is developed with bottom elevation at 420 ft.</td>
<td>&gt;2.5 million CY</td>
</tr>
<tr>
<td>Scenario # 3</td>
<td>City of Bellevue Stays Area 8 is developed with bottom elevation at 420 ft.</td>
<td>&gt;3.6 million CY</td>
</tr>
</tbody>
</table>
Cedar Hills Regional Landfill (CHRL)
2010 Site Development
Existing Planning & Environmental Review

- **2010 Site Development Plan**
  - Six alternatives plans developed
    - No landfilling in the buffer
    - Five potential landfill areas
  - Final EIS July 2010
  - Alternative 2 (aka Area 8) chosen for Implementation
Alternative Development Plan #1

FIGURE H-5

Cedar Hills Regional Landfill

Revised Site Development Plan

New Landfill Area

Remove Solid Waste and Restore

Cedar Hills Landfill Boundary

100-Foot Buffer Boundary

King County
Department of Natural Resources and Parks
Solid Waste Division

Waste Prevention
Resource Recovery
Waste Disposal
Alternative Development Plan #2 (Approved)
Alternative Development Plan # 3
Alternative Development Plan # 4
Alternative Development Plan # 5
CHRL Site Constraints (1/2)

• Physical
  – Slope stability
  – Wetlands
  – Easements

• Operational
  – Minimal impacts on operating areas
  – Location of soil stockpile and ponds
  – Location of shop and offices
  – Green House gas
CHRL Site Constraints (2/2)

• Environmental
  – Noise
  – Traffic
  – Dust
  – Aesthetics
  – Ground water
  – Fugitive/Migration of Gas
CHRLF Development Options

• Fill the top lift and re-grade Areas 5, 6, 7
• Development on the south side of the landfill
• Re-grade areas 2, 3, 4 and Central Pit
• Re-grade Main Hill Area
• Implement Area 8 development
• Changes in Operational Practices
• Partial waste export/diversion
• Divert recycling materials from the landfill
List of Available Documents (1/2)

- Special Use Permit, 1960
- Final Engineering Design Reports for Areas 5, 6, and 7 Development
- CHRLF Site Wide Hydrogeological Report, 2004 and 2007
- Final Environmental Impact Statement (EIS), 1998
- Closure System Plans for Areas 4, 5, 6, and 7
- CHRLF Alternative Development Options & Remaining Life Analysis, 2003
- Solid Waste Transfer & Waste Export System Plan, September 2006
- Draft CHRLF Site Development Plan & EIS, 1987
List of Available Documents (2/2)

- CHRLF Site Development Plan, EIS, Comparative Impact of Alternatives, 1996
- CHRLF Area 8 Development Draft Options Report, 2007
- Gershman, Brickner & Bratton, Inc (GBB) Report
- CHRLF Site development Plan 2010 and Environmental Impact Statement (EIS) 2010
- Noise and Vibration study for North Flare Station done by Quietly Superior, 2014
- Noise study for CHRLF for assessing impact on the neighboring community 2012
Objectives of the Revised SDP 2015 Project

1. Explore and evaluate long-term MSW disposal options for extending the current life of 2030 to beyond 2040.

2. Develop the landfill areas with minimum environmental impacts.
Scopes for Revised SDP 2015 project

Phase 1:
1. Waste disposal projections and associated life cycle analysis for landfill capacity beyond 2040
2. Identify and Evaluate Alternative Development Plan for MSW disposal for the planned capacity
3. Develop conceptual layout for the Alt. Dev. Plans
4. Screen and prioritize the alternatives based on selected criteria
5. Cost Evaluation for five top ranking alt. Dev. Plan
6. Develop an economic Model based on the preliminary costs to determine the financial impacts
Scopes for Revised SDP 2015 project

Phase 2:

1. Develop the SEPA check list and determine DS/DNS status of the alternative plans following the SEPA review process.

2. Development of EIS based on the determination of DS/DNS of the alternative plans

3. (Optional) Development of Project Program Plan (PPP) for the Council
## Timeline for Revised SDP project 2015

<table>
<thead>
<tr>
<th>Scope of Work</th>
<th>Timeline for Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1: Alternative Development Plans and Economic Models</td>
<td>6 months after NTP</td>
</tr>
<tr>
<td>Phase 2: Completion of SEPA process and Preparing the EIS 2015</td>
<td>6-9 months after Amended NTP</td>
</tr>
</tbody>
</table>
Future Capital Projects in CHRLF (1/2)

- Environmental Control Systems Modifications (ECSM)
- New Area Development (TBD)
- Closure of the old areas (Area 5, 6, 7)
- Closure of Area 8
- Improvement of the stormwater and leachate collection systems
Future Capital Projects in CHRLF (2/2)

- Improvement of LFG control systems
- Closure of the new area to be developed
- Development of the Post-Closure plan
- Design of the Post-closure Development Project
- Implementation of the Post-closure development project
SWD Expectations (1/2)

✓ Innovative Site Development Approach
✓ Research and Development on Best Available, New, & Emerging Landfill Technologies
✓ Cost Consciousness
✓ Risk Mitigation
✓ High Quality Work Products
✓ Holistic Approach
SWD Expectations (2/2)

✓ Integrate Interrelated Project Requirements
✓ Minimize Environmental Impacts
✓ Pay Attention to Customer Needs
✓ Manage Projects by using SWD’s Project Management Standards
For Further Information

Project Info:
Mizanur Rahman, Project Manager, SWD
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Zahid Khan, Manager, Project Management Unit, SWD.
Tel: (206) 477-5225, email: zahid.khan@kingcounty.gov

Consultant Procurement Info:
Ken Curl, Contract Specialist, Finance Division
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QA Session