WASTE ACCEPTANCE CRITERIA

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June 7, 2012

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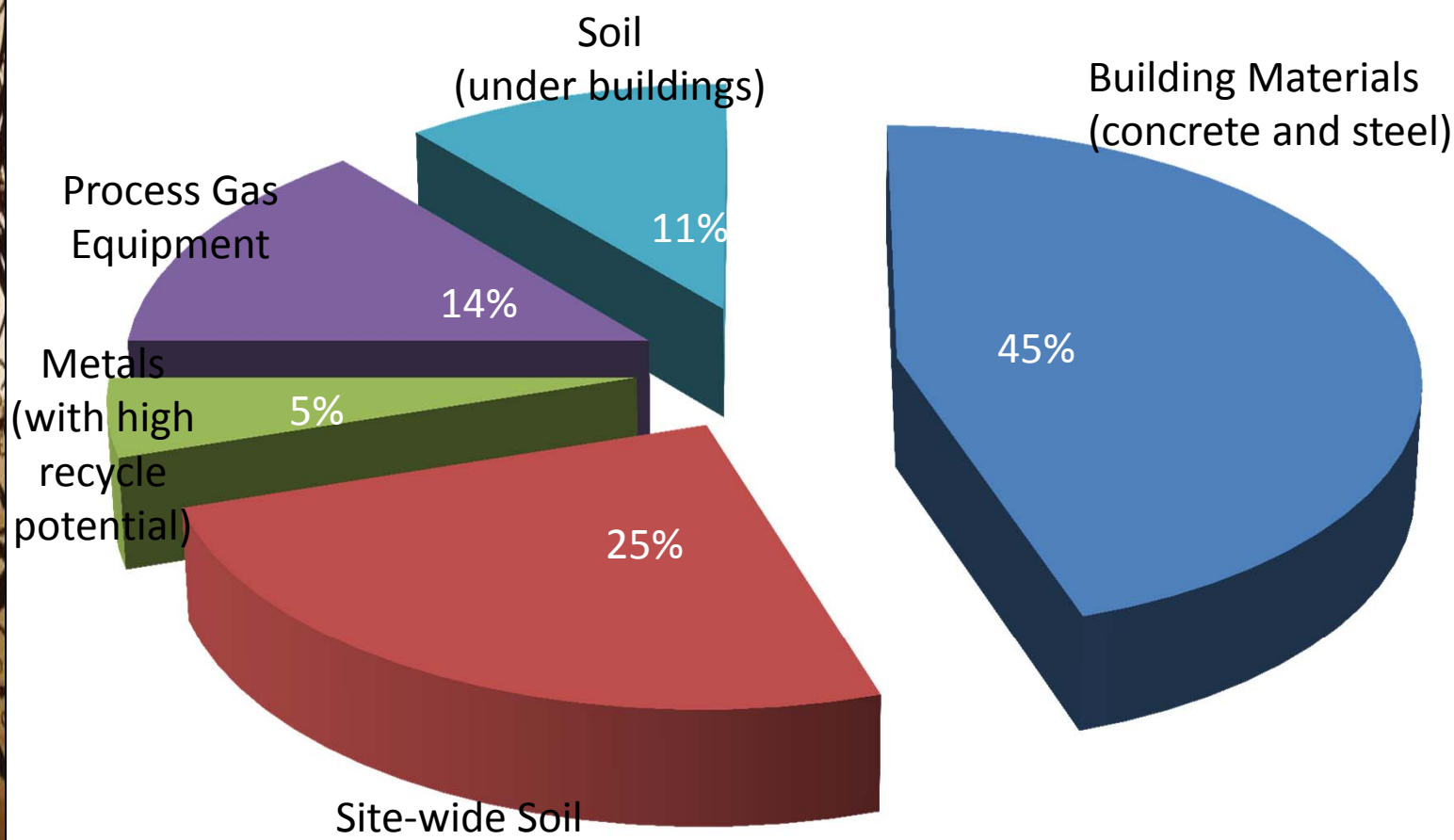
RECAP

- Feedback suggests the community desires a first-class, large-scale industrial park to foster reindustrialization.
- In the Future Vision Plan, FFE Consultants presented a development strategy that includes parcelization and infrastructure, such as a WWTP, water distribution, roads and railroads.
- The Plan also calls for some on-site waste disposition with consolidation of landfills that exist inside the developable area.
- That led us to Waste Acceptance Criteria.
- Based on recent WAC discussions, the SSAB has focused on process gas equipment.

RECAP

WASTE STREAMS



~2.2M yd³ of waste volume

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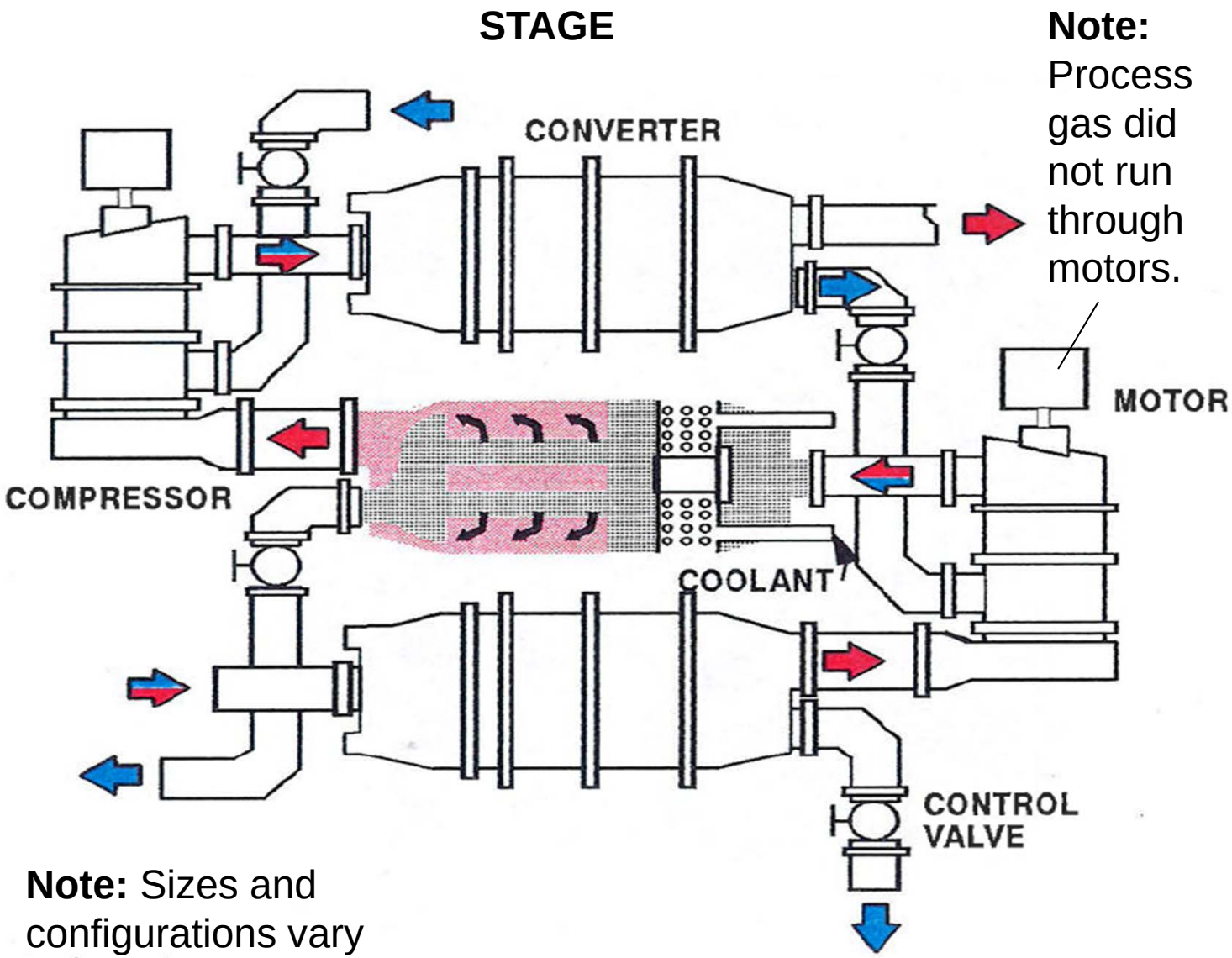
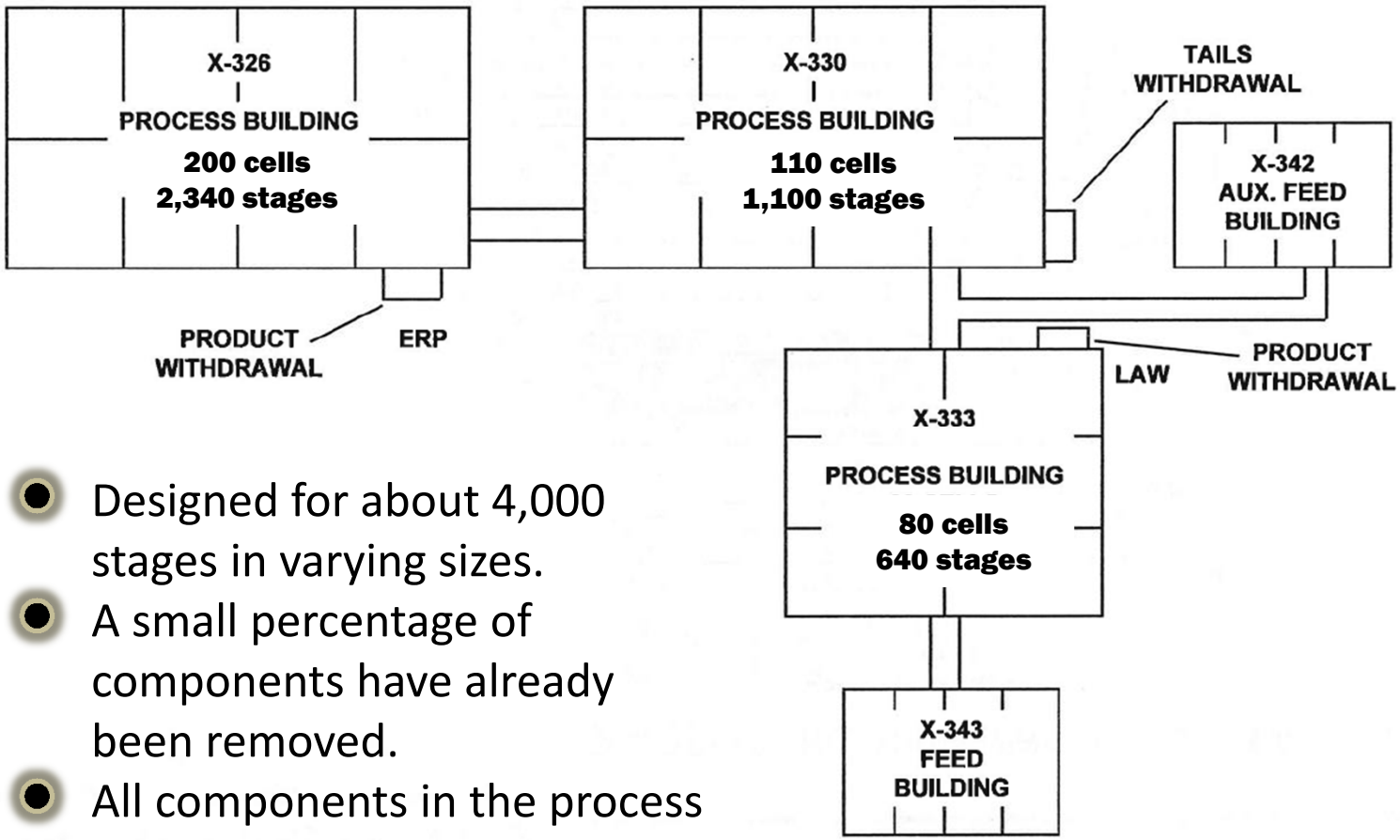
PROCESS GAS EQUIPMENT



Note: Process gas did not run through motors.

Note: Sizes and configurations vary throughout cascade.

PROCESS GAS EQUIPMENT



- Designed for about 4,000 stages in varying sizes.
- A small percentage of components have already been removed.
- All components in the process gas system are considered radiologically contaminated in varying degrees.

Process Gas Equipment

X-333	X-330	X-326
Converters – 652 (~44M pounds) Compressors – 655 (~24.5M pounds) Total weight of all X-333 PGE: **~102M pounds** Total volume of all X-333 PGE: **~159,000 yd^3**	Converters – 1,132 (~21M pounds) Compressors – 1,109 (~16M pounds) Total weight of all X-330 PGE: **~68M pounds** Total volume of all X-330 PGE: **~118,000 yd^3**	Converters – 2,340 (~10M pounds) Compressors – 2,361 (~11M pounds) Total weight of all X-326 PGE: **~34M pounds** Total volume of all X-326 PGE: **~37,000 yd^3**

159,000
118,000
37,000

314,000 yd^3 / 2.2M yd^3 = 14.2%

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CONTAMINANTS

- The following contaminants exist in the process gas equipment in each of the three process buildings (X-333, X-330, X-326):
  - ✓ **Uranium**
    - ✓ Uranium-233; Uranium-234; Uranium-235; Uranium-236; Uranium-238
      Uranium Decay Products
      - ✓ Thorium
        - ✓ Thorium-230
  - ✓ **Thorium-228**
  - ✓ **Technetium-99**

TRACE TRANSURANICS

- ✓ **Americium-241**
- ✓ **Neptunium-237**
- ✓ **Plutonium**
  - ✓ Plutonium-238; Plutonium-239; Plutonium-240

- ✓ *Trace transuranics in the cascade are believed to be in extremely small quantities.*

CONTAMINANTS

- Precise volumes of these contaminants are unknown because the analysis of characterization data is ongoing.
- Estimated hold-up volumes will be included in the upcoming Remedial Investigation/Feasibility Study (RI/FS).

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TECHNICAL WAC

- WAC specifies the criteria waste must meet before, during, and after disposal to ensure protection of human health and the environment for placement of any waste in OSDC.
- Ohio EPA must approve the criteria and methodology used to determine WAC.
- WAC approved by Ohio EPA will include requirements for:
  - radioactivity and chemical concentration limits in material for disposal
  - waste evaluation and characterization standards
  - waste physical characteristics
  - waste packaging, safe handling, and transportation
  - specifically prohibited items,
  - ARARs
  - quality assurance and quality control
  - nuclear safety
  - security

ADMINISTRATIVE WAC

Ohio EPA Director's Final Findings & Orders (DFF&O)

- "Waste Acceptance Criteria" ("WAC") means the criteria developed by Respondent ***with community input*** and approved by Ohio EPA which specify standards that must be met by each waste prior to its acceptance into any on-site disposal facility, if such a facility is selected as a remedy pursuant to these Orders.

  "The criteria must specify: waste evaluation and characterization standards, waste physical characteristics standards, waste packaging standards, waste safe handling standards, waste transportation standards, activity criteria and chemical concentration criteria."

- A Preliminary WAC is incorporated into the Proposed Plan, which is then followed by a Public Comment Period and the Record of Decision.

IMPACTS

- The cost variance specifically for on-site vs. off-site shipment of PGE from the process buildings has not been determined.
- Overall cost estimates for waste disposition alternatives have been established, which have been reported to SSAB.
- Although PGE is 14% of the waste volume, a direct correlation between volume and cost cannot be drawn.

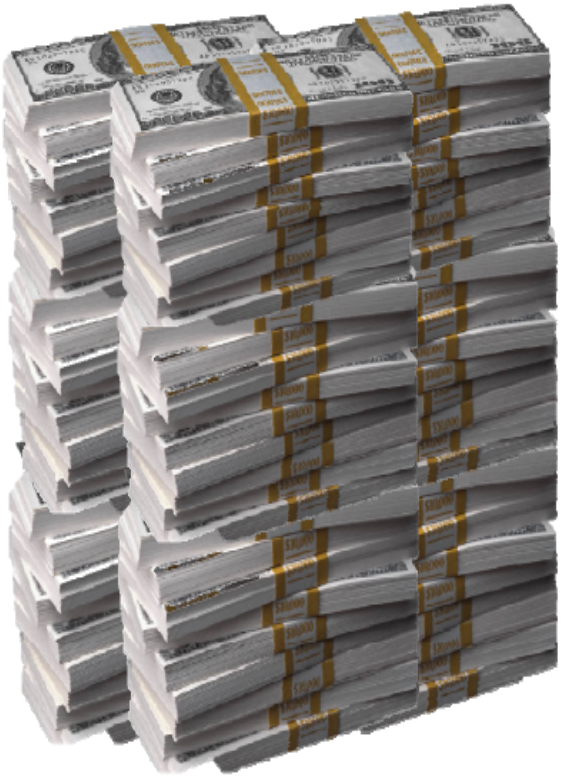
IMPACTS

Cost Comparison

$1.62 Billion

$952 Million

$668 Million



On-Site With Some Off-Site Disposal

All Off-Site Disposal

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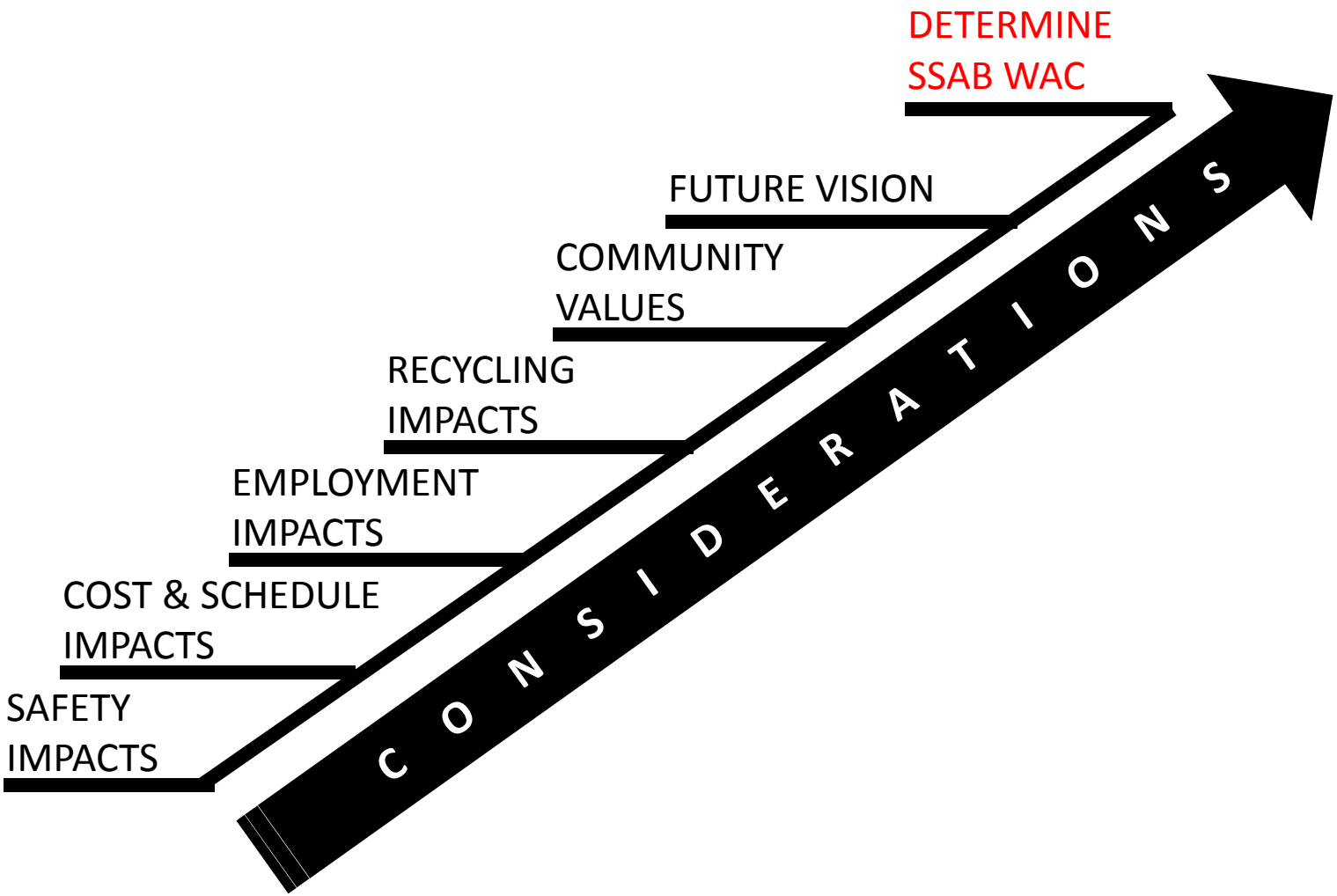

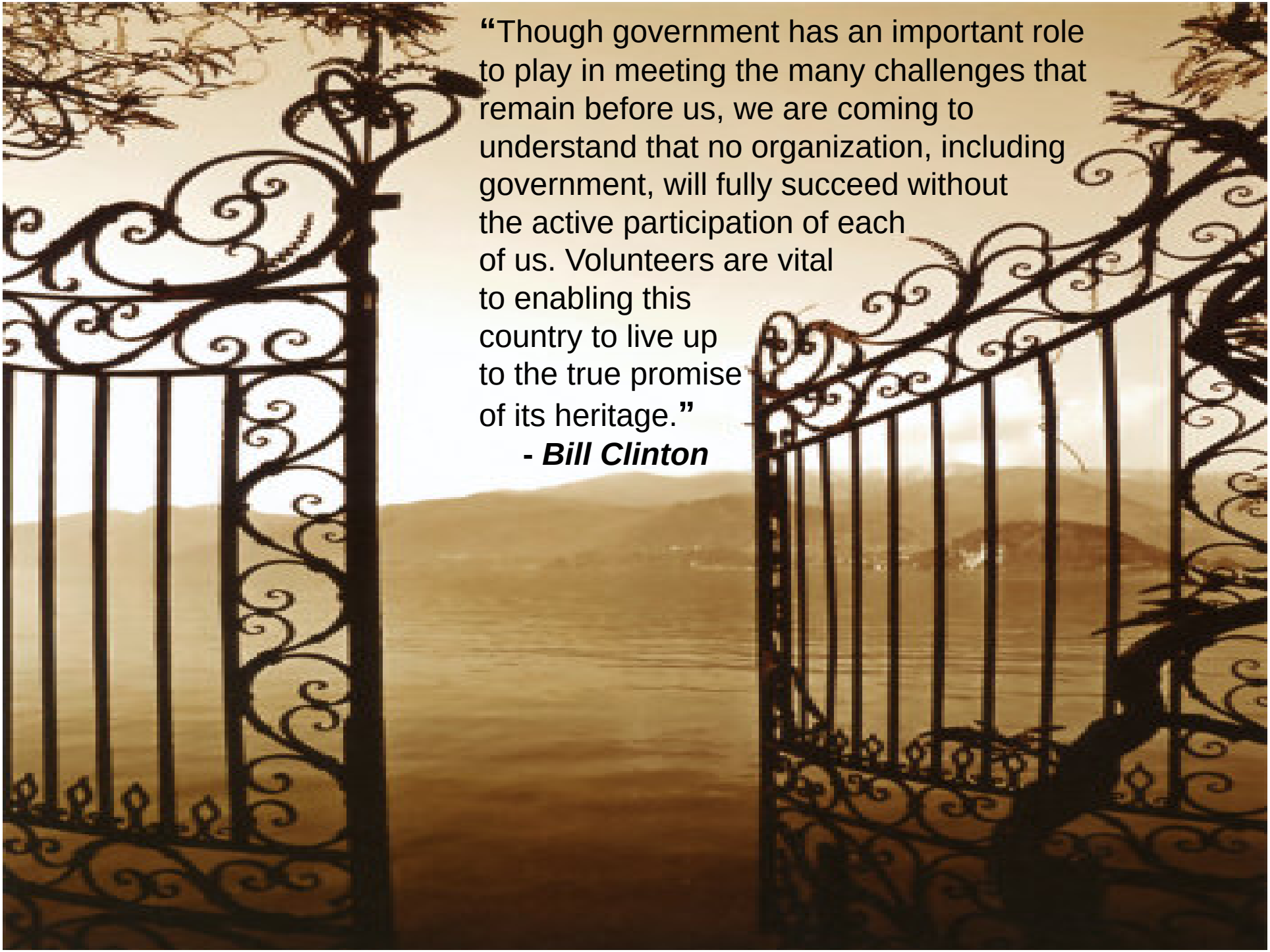

“Though government has an important role to play in meeting the many challenges that remain before us, we are coming to understand that no organization, including government, will fully succeed without the active participation of each of us. Volunteers are vital to enabling this country to live up to the true promise of its heritage.**”**

- Bill Clinton

QUESTIONS