

Serving the  
community,  
into the future...

**Haskell Indian Nations  
University - Ecology Club**

**Wakarusa Water  
Reclamation Facility**

November 14, 2006

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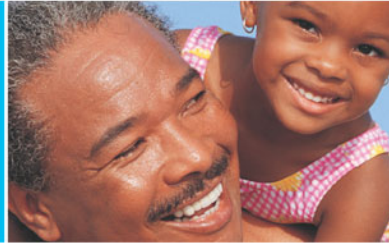
**Wakarusa Water Reclamation Facility**  
[www.lawrenceutilities.org/wwrf](http://www.lawrenceutilities.org/wwrf)

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[weknowwater@bv.com](mailto:weknowwater@bv.com)

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## Introductions and Team Members

- **City Staff**

- **Dave Corliss**, City Manager
- **Debbie Van Saun**, Asst City Mgr
- **Dave Wagner**, Asst Dir Wastewater
- **Lisa Patterson**, Communication Mgr
- **Philip Ciesielski**, Utilities Engineer
- **Mark Hegeman**, Wastewater Treatment Mgr



- **Black & Veatch**

- **Mike Orth**, Project Leader
- **John Keller**, Project Manager
- **Alan Ringhausen**, Engineering Mgr
- **Page Burks**, Project Engineer



- **Acquisition Team**

- **Dan Watkins**, Law Offices of Dan Watkins
- **Tim Orrick**, Foth & Orrick
- **Jason Prier**, Foth & Orrick

FOTH & ORRICK, L.L.P.  
ATTORNEYS AT LAW

- **Public Relations**

- **Patti Banks**, Patti Banks Associates
- **Lisa Briscoe**, Patti Banks Associates



- **Bartlett & West**

- **Joe Caldwell**, Project Manager

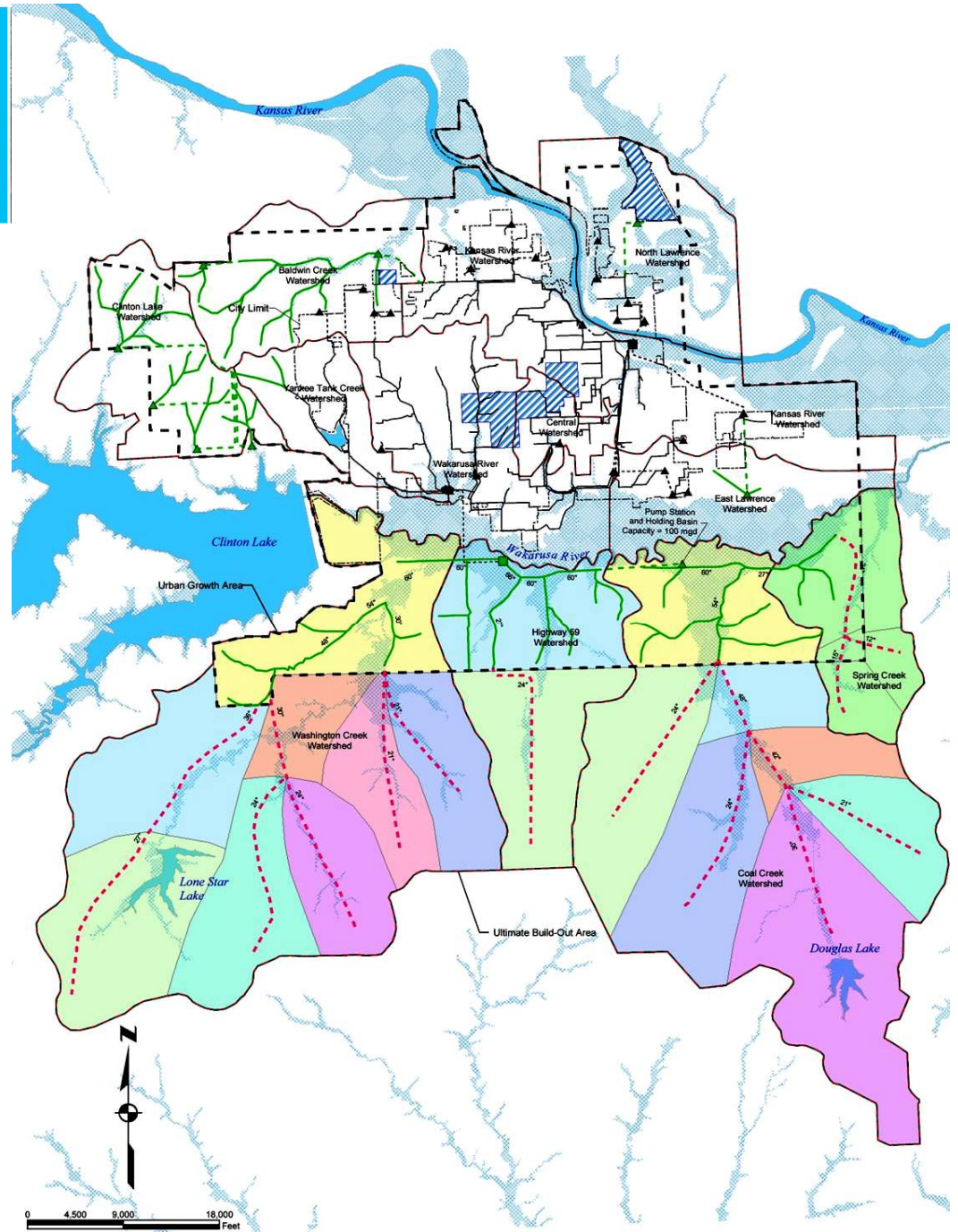
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## Vision for Ultimate Build-out 50 mgd

- 300 acre minimum parcel size required



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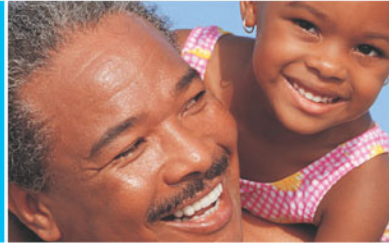
## Footprint Alternatives Considered

| Alternative                   | Acreage Required* |
|-------------------------------|-------------------|
| <u><a href="#">Small</a></u>  | 235               |
| <u><a href="#">Medium</a></u> | 300               |
| <u><a href="#">Large</a></u>  | 1000              |

*\*Includes wet-weather treatment, solids management, and buffer.*

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## Wakarusa Water Reclamation Facility Timeline

|                             | 2005      | 2006       | 2007         | 2008        | 2009         | 2010         | 2011         |
|-----------------------------|-----------|------------|--------------|-------------|--------------|--------------|--------------|
| Siting                      | [Red bar] |            |              |             |              |              |              |
| Permitting/Closing on Site  |           | [Blue bar] |              |             |              |              |              |
| Platting/Zoning Application |           |            | [Purple bar] |             |              |              |              |
| Design                      |           |            | [Green bar]  | [Green bar] |              |              |              |
| Bid                         |           |            |              |             | [Yellow bar] |              |              |
| Construction*               |           |            |              |             | [Orange bar] | [Orange bar] | [Orange bar] |

\* Construction schedule assumes conventional Design-Bid-Build approach

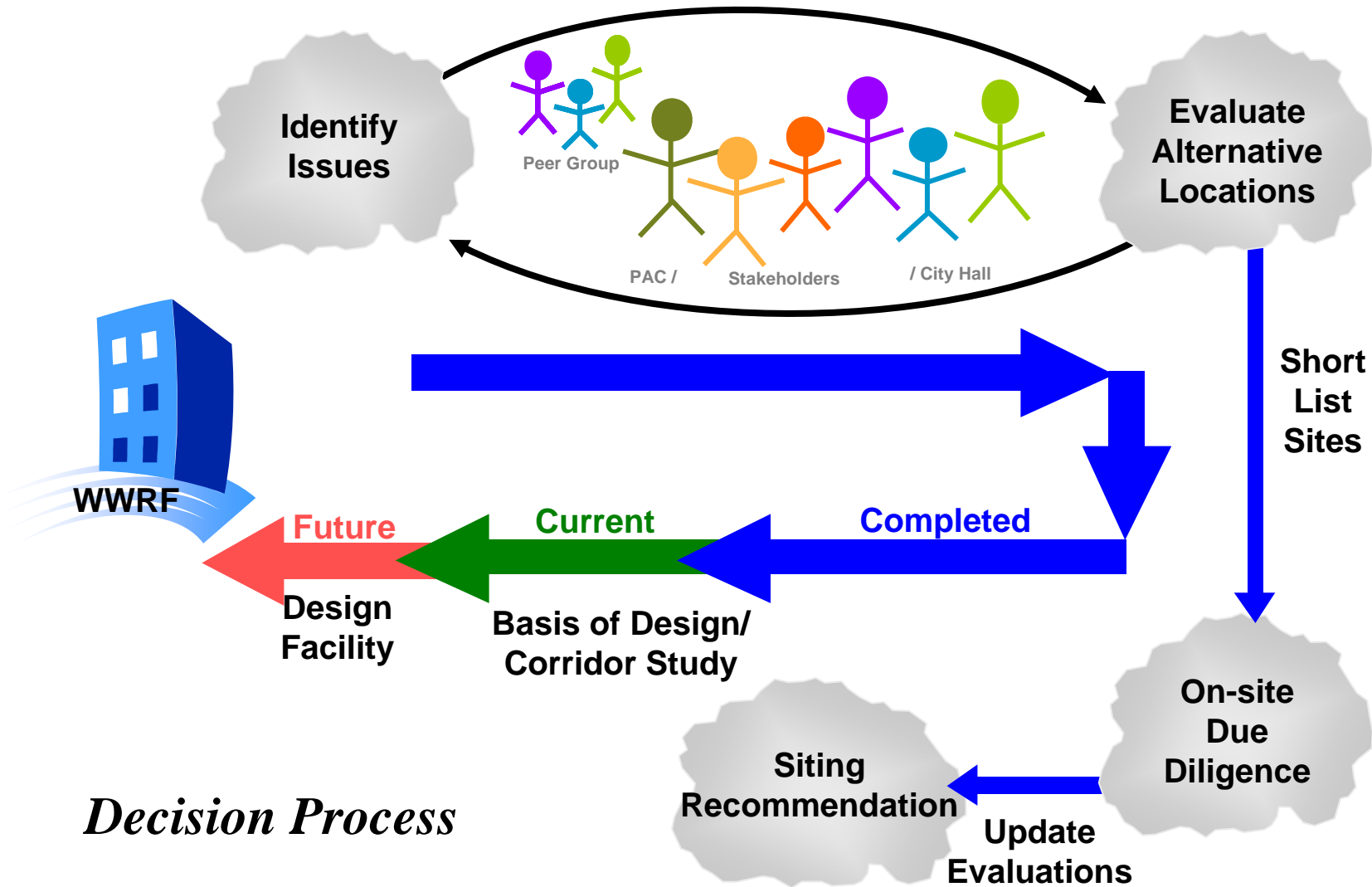
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## Public Advisory Committee Role

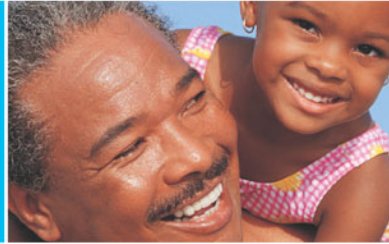
*Guide process by providing a voice for community members with regard to site utilization and aesthetics*

- **Mike Amyx**, City of Lawrence
- **Mike Rundle**, City of Lawrence
- **Charles Jones**, Douglas County
- **Roger Pine**, KS State Senate
- **Terry Riordan, MD**, Lawrence/Douglas County Planning Commission
- **Tom Bracciano**, Lawrence Public Schools
- **Warren Corman**, KU
- **Rod Geisler**, KDHE
- **Lavern Squier**, Lawrence Chamber of Commerce
- **Michael Campbell**, Kansas Sierra Club
- **Charles Hawkins**, Haskell Indian Nations University
- **Mary Lynn Stewart**, Lawrence Preservation Alliance
- **Michael Caron**, Save the Wakarusa Wetlands
- **Carrie Lindsey**, League of Women Voters
- **Alison Reber**, Kaw Valley Heritage Alliance
- **Bobbie Flory**, Lawrence Home Builders Association
- **Michael Almon**, Interested Citizen
- **Laura Calwell**, Kansas Riverkeepers
- **John Craft**, Neighbor to Kaw Wastewater Treatment Plant
- **Mike Bowman**, Interested Citizen

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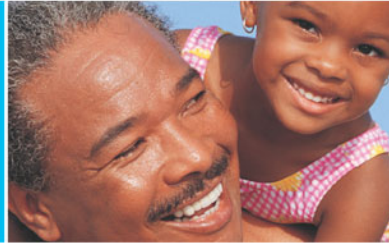
## Stakeholders Interviewed

- **Judy Billings**, Bleeding Kansas Heritage Area
- **Bill Busby**, Kansas Biological Survey
- **John Pendleton**, Business Owner
- **Carey Maynard-Moody**, Kansas Sierra Club
- **Don Dunn**, Indian Hills Neighborhood Association
- **Scott Schultz**, Rural Water District No. 4
- **Ralph King**, Property Owner
- **Sharon Dwyer**, Rural Water District No. 5
- **Fred Six**, Property Owner
- **Ron and Joyce Wolfe**, Interested Citizens & Jayhawk Audubon Society
- **Jim Carpenter**, Lawrence Association of Neighborhoods
- **Melinda Henderson**, Lawrence Association of Neighborhoods
- **Jim Brewer**, Kansas Department of Transportation
- **Roger Kitsmiller**, Property Owner
- **Don Hatcher**, Baker University
- **Boog Highberger**, Mayor (when interviewed)
- **David Schauner**, City Commission
- **Mike Amyx**, City Commission (current Mayor)
- **Sue Hack**, City Commission
- **City Administration Staff**
- **City Utilities Staff**
- **City Public Works Staff**
- **City Planning Staff**
- **City Parks Staff**

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## Public Involvement in Decision Process

| Activity                                 | Date              |
|--|-------------------|
| PAC Introductory Meeting                 | 10/26/05          |
| Stakeholder Interviews                   | 10/1/05 – 11/1/05 |
| Public Meeting No. 1                     | 11/3/05           |
| PAC Workshop No. 1                       | 11/15/05          |
| PAC Bus Tour of Area                     | 12/14/05          |
| Public Wetlands Seminar                  | 1/18/06           |
| PAC Workshop No. 2                       | 1/18/06           |
| Public Meeting No. 2                     | 1/23/06           |
| Public Eco-machine Seminar & PAC Meeting | 3/1/06            |
| Potential Property Owner Notification    | 4/26/06           |
| Public Meeting No. 3                     | 5/10/06           |
| Public Meeting No. 4                     | 8/14/06           |

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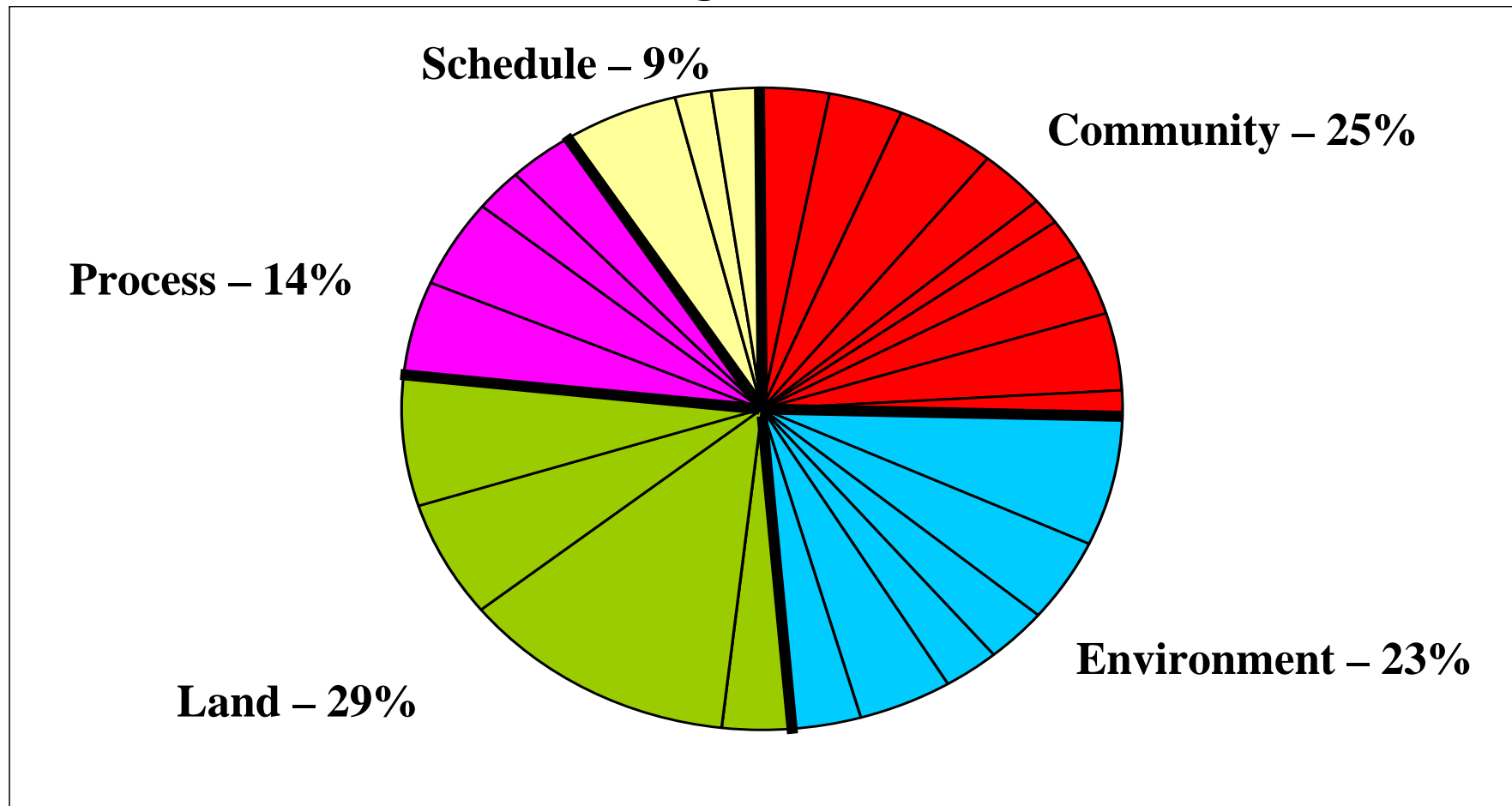
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## Selection Criteria and Weights



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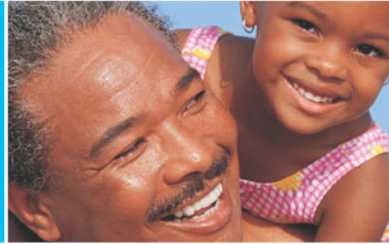
## Relative Influence of Major Sub-criteria

- **Land**
  - Potential Future Service Area by Gravity
- **Community**
  - Odor Control
  - Fit with Future Land Use
- **Environment**
  - Stream Impacts
  - Discharge Location
  - Wetlands Impacts

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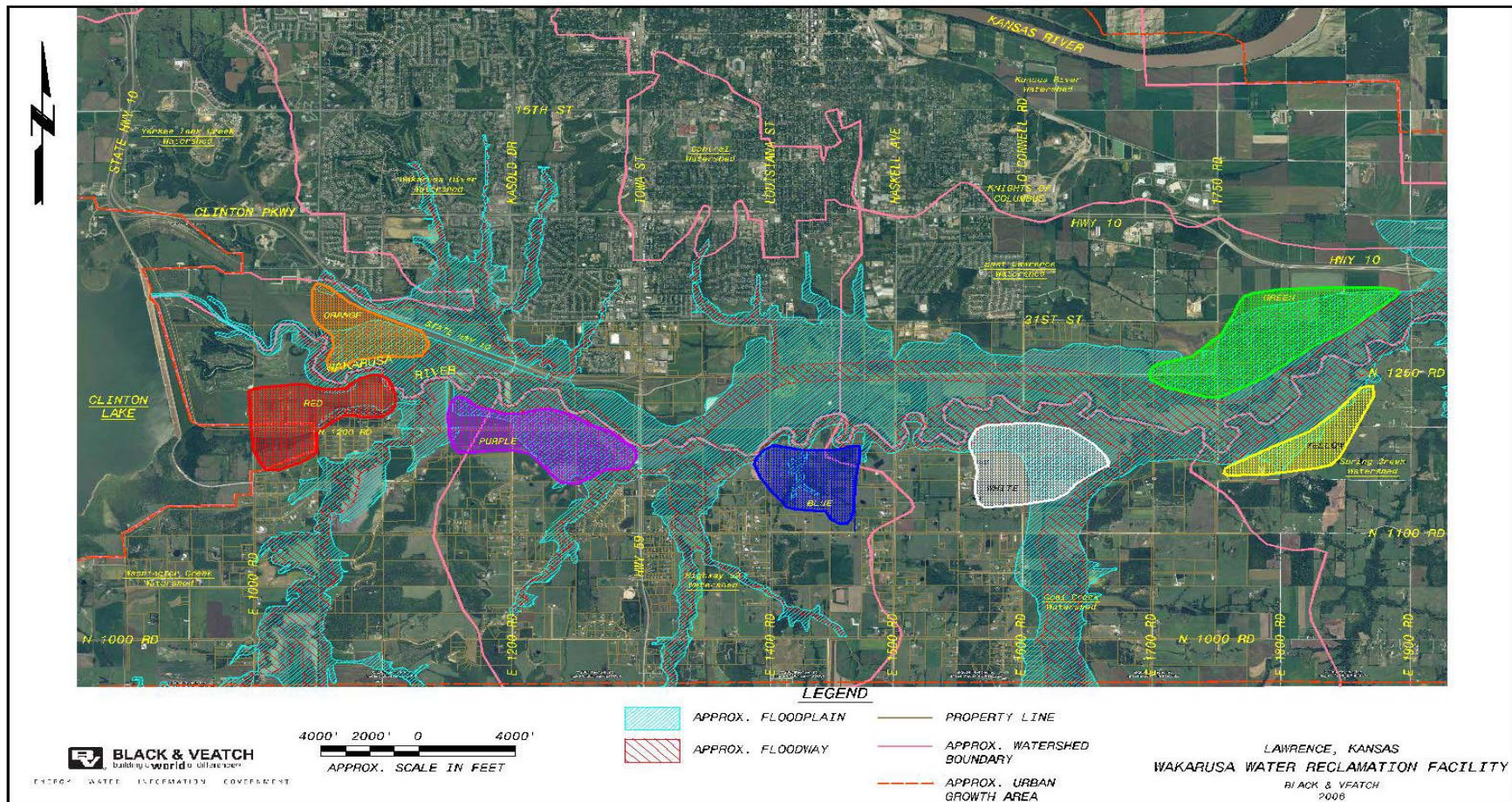
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## Seven Areas Considered



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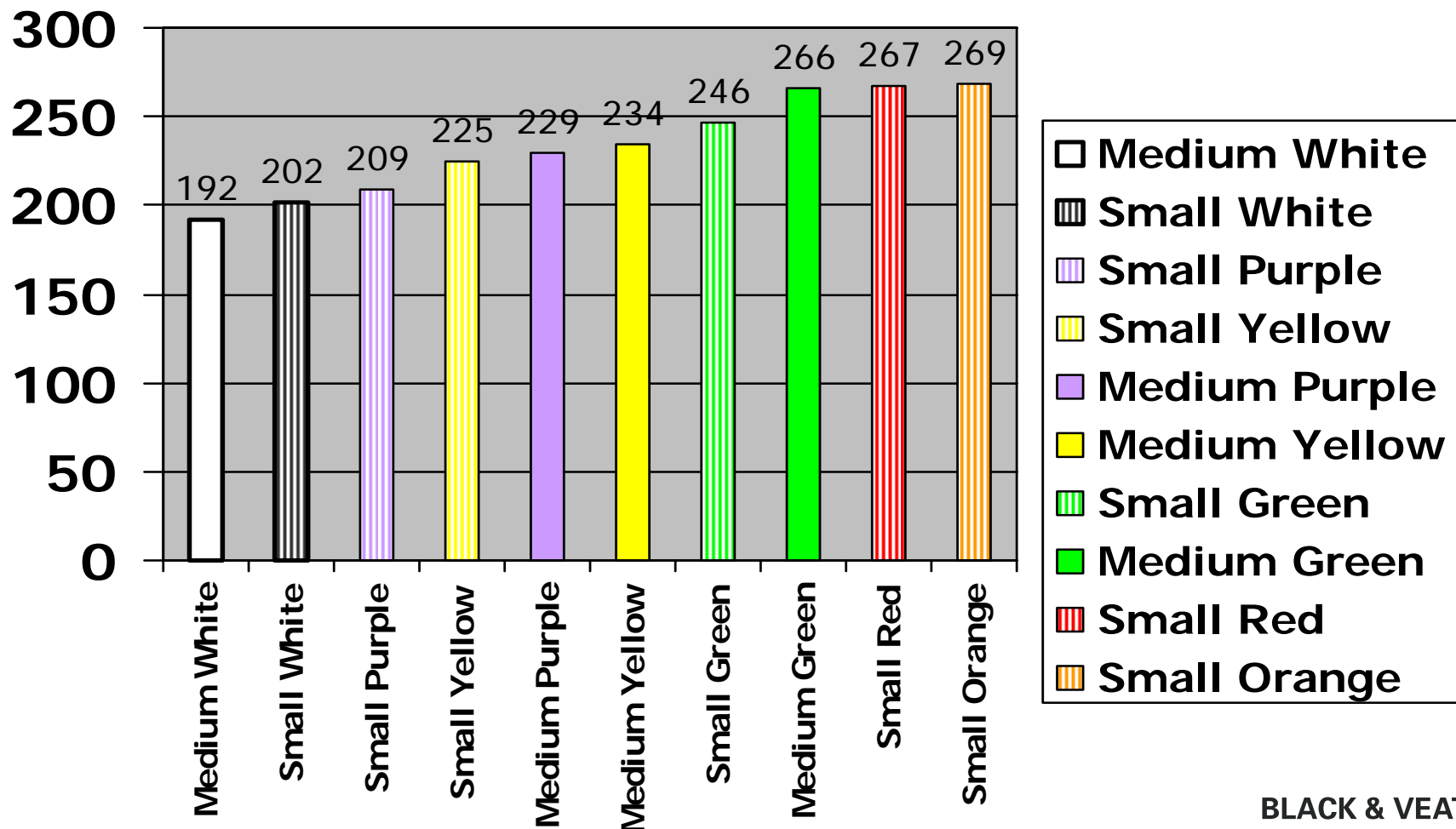
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## Cost/Benefit Scores for the Top Ten Alternatives

(Lower score is better)



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## Select Two Lowest Cost/Highest Value Alternatives

Two sites within 10% of each other

- Possible Advantages of White Site (Medium Footprint)
  - Relatively isolated site
  - Good location with regard to prevailing winds and odor impacts
  - Fit with existing and future land use
  - Discharges downstream of Haskell-Baker Wetlands
  - Lower present worth cost
- Possible Advantages of Purple Site (Small Footprint)
  - Higher benefit score
  - Lower collection system costs
  - Good access to roadways

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## On-site Investigation Findings

| Investigation                     | White Site  | Purple Site                         |
|-----------------------------------|---|-------------------------------------|
| Phase I Environmental             | No significant findings   |                                     |
| Phase II Cultural Resources       | No finds eligible for National Register of Historic Places  |                                     |
| Wetlands                          | Facility footprint can accommodate small wetlands located in SE of site                                   | None in proposed facility footprint |
| Threatened and Endangered Species | None identified.<br>Wildlife – Nothing significant<br>Plants – Nothing significant, previously cultivated |                                     |
| Geotechnical                      | Not a differentiator – highly similar soil  |                                     |
| Appraisal                         | Lower total land cost   | Higher total land cost              |

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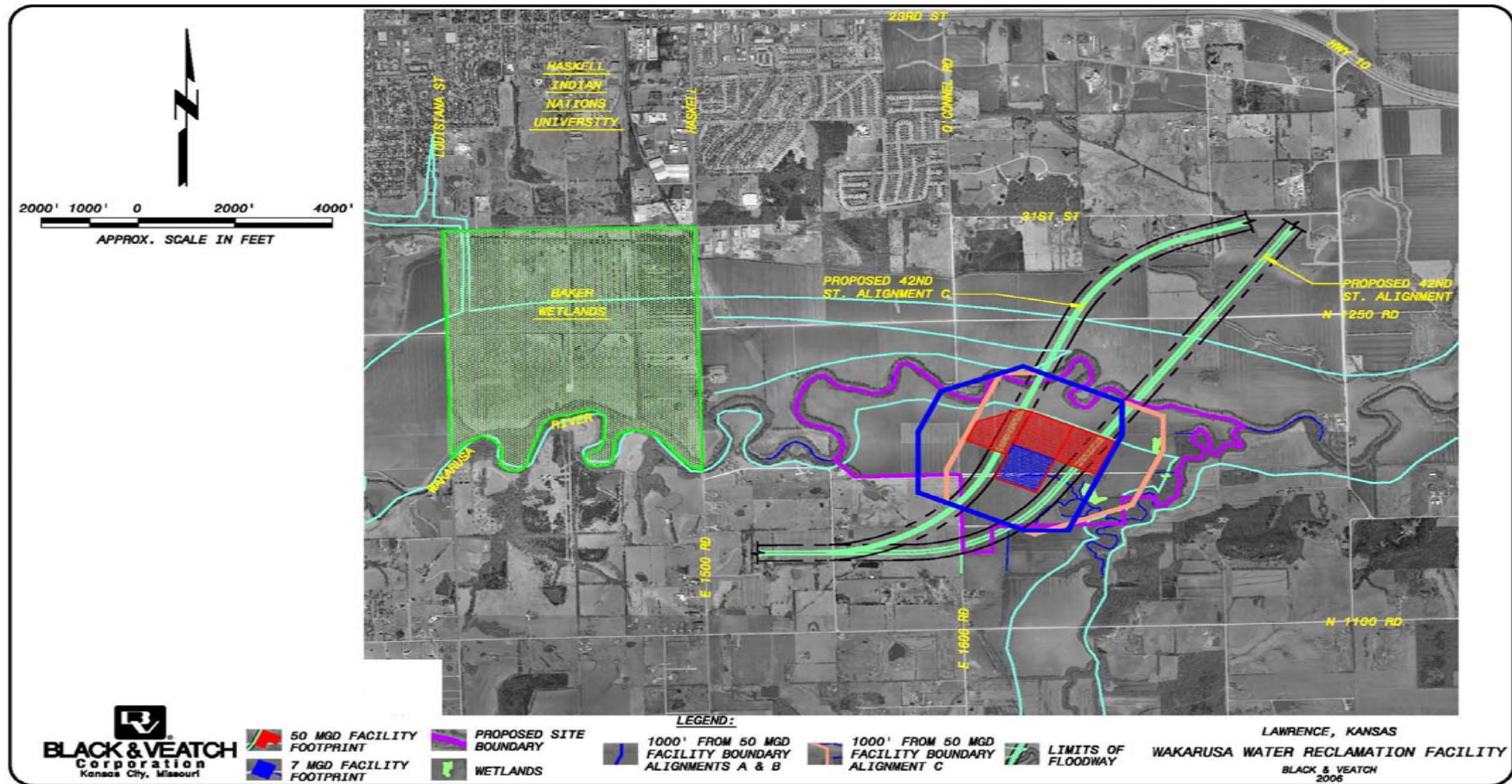
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## Proposed Site Layout



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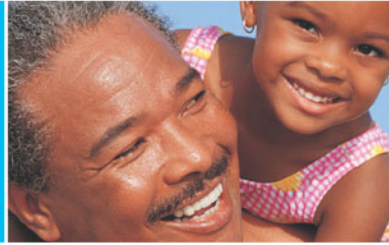
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## Optimal Site Recommended

- No residences require relocation
- Fewer near-neighbors
- Floodway provides natural buffer to north and east
- Location minimizes impact of potential odors carried by prevailing winds

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## Optimal Site Recommended (cont'd)

- Good fit with current and future land use
- Maximizes use of existing wastewater infrastructure
- Flexible site
- Neutral to location of South Lawrence Trafficway (SLT)

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## “Where do we go from here?”

- Negotiations with property owners
- Acquisition of site
- Annexation of site
- Completion of preliminary design report
- Completion of the corridor conveyance study
- Preparation of design memorandum

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# Questions?



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