



West Branch City Council
City Administrator's Report
12/04/17

Pending Action Items:

The Wastewater Task Group had a strong Meeting on December 1st. The Task Group Meeting was recorded and staff is working on creating an on-line presence that will allow the public to keep updated as to the task group's progress. Our recent meeting reviewed two non-mechanical processes that dealt different regulated nutrient levels. It is possible that together these processes could provide a solution to meet the new state water quality mandates. The task-group also toured the Walcott Wastewater Treatment Facility (This was also important to see because they also treat wastewater from two in-town Truck Washes. If we consider a reuse process a Truck was maybe an option for a use of our affluent). Please see attachment of the presentations that were given to the Task Group. Although tight and Aggressive our goal is to have a process recommendation to the City Council in January of 2018. We will rank Processes / facilities on its ability to include Reuse, Ecological Benefits(s), and Revenue Generating Potential. The task-group will be expected to serve in an advisory role throughout the design, finance, and construction phases of the project. The task-group will be reviewing several technologies including mechanical and non-mechanical process.

Report from the Desk of the City Administrator:

- Due to the holidays the following trash and recycling pickup schedule will be observed Christmas week Saturday, December 30th and New Year's week: Saturday, January 6, 2018.
- Waiting for Final numbers and Festival Debriefing; However, I had the opportunity to attend the Christmas Past Event both Friday and Saturday and from my first time attendance perspective the event was a smashing success! There are few observations that could make this event even better, and I will explore those items next year. As you are Aware, the Christmas Past event that the City Council valued as a moderate priority, so therefore staff will be examining ways that the city can enhance this event.

Follow up / Reminder Items:

- A Call for Service – The City has a number of vacant and term expirations in our Boards and Commissions. Therefore the City is inviting citizens to volunteer their time to one of our openings. These boards and commissions are aimed to be diverse in opinions and back grounds.
- The International City / County Manager Association (ICMA) provided a great focus on issues facing smaller communities. For this reason, I will be releasing several presentations that were highlighted at this year's conference. The topic this week is entitled, "Organizing a Premier Community". Please see attachment 2.

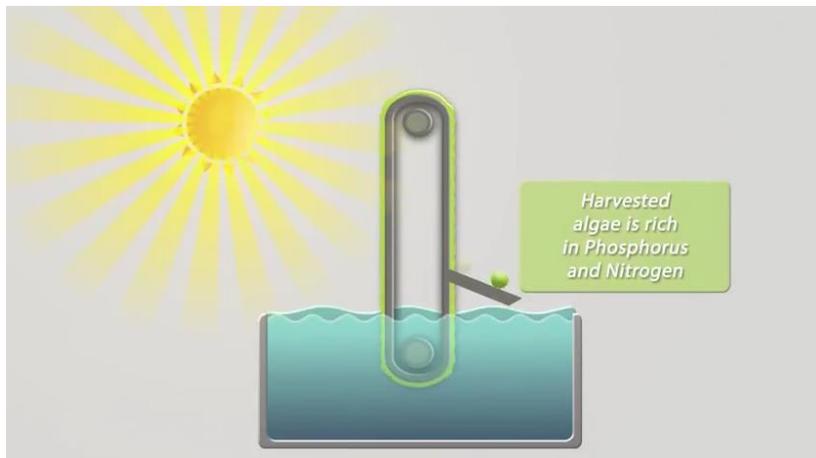
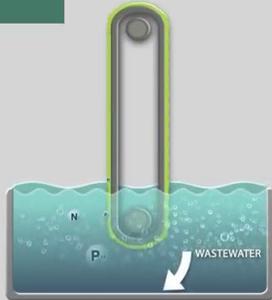
Events / Scheduled Meetings:

- The City Hall will be closed December 25th and 26th in observation of Christmas.

Attachment 1
Solutions for Local Wastewater Treatment



Revolving Algal Biofilm (RAB) Technology



Many small communities across Iowa are facing the challenge of upgrading their wastewater treatment plants to meet new regulatory mandates. Gross-Wen Technologies, an Iowa Innovation Corporation (IICorp) client, thinks algae may be the answer.

Two Iowa State University scientists, Martin Gross and Zhiyou Wen, founded Gross-Wen Technologies in 2013 with the idea of commercializing an algal-



based wastewater treatment process. Its system recovers nutrients such as nitrogen and phosphorous from wastewater, and captures algae biomass that can then be used to create a slow-release algal fertilizer.

The result? An efficient treatment system that stops the flow of excess nutrients, including nitrates, into Iowa's waterways—and helps communities with limited budgets treat their wastewater much more affordably than traditional treatment approaches.

"The Revolving Algal Biofilm (RAB) system has ten times higher treatment capacity and biomass productivity in comparison to conventional algal systems such as raceway ponds," said co-founder Gross, a postdoctoral fellow at ISU's Center for Crops Utilization Research. "This technology utilizes a rotating biofilm which allows for simple and low-cost algal harvesting."



Through Gross-Wen's innovative, patent-pending RAB Treatment System, a series of broad conveyor belts cycle through wastewater in an ongoing loop. With exposure to sunlight and air—as well as the nitrogen and phosphorus present in the water—layers of algae soon grow on the belts. Not only does the system clean the wastewater, the algae are then collected and used to create slow-release algal pellets—a 100% renewable plant fertilizer product.

IICorp is proud to have played a role in helping Gross-Wen commercialize its technology. IICorp helped Gross-Wen obtain a \$25,000 grant from IICorp, a \$25,000 loan from the Iowa Economic Development Authority, and a 2016 USDA SBIR Grant valued at \$100,000.

"The programs that IICorp offers such as the SBIR assistance program have helped accelerate the commercialization of our algae system," Gross said. "These kinds of programs give Iowa companies a huge advantage when commercializing innovative technologies like ours."





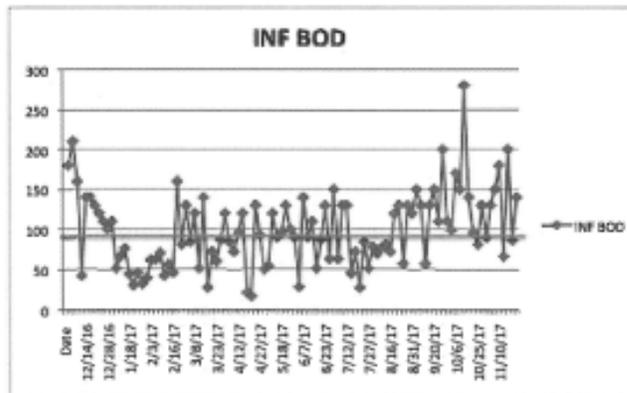
November 30, 2017

City of West Branch
City Hall
P.O. Box 218
West Branch, IA 52358-0218

Dear Mr. Moss

NanO2™ LLC is pleased to provide this budgetary proposal for our Infusion Technology “IN” for your potential aeration requirements. As basis for this proposal we have reviewed data on your influent BOD levels from 2016 and 2017. We have reviewed your permit and compared the oxygen requirement specified by your permit under all flow conditions.

The permit reviewed sets the daily oxygen requirement of 544 lbs, however your average BOD levels indicate a daily oxygen volume of approximately 350 lbs would provide the necessary amount. Our review of the data found a significant variation in BOD levels, at this time we do not know the cause and would be interested in learning more prior to developing a final aeration system proposal.



The “IN” system proposed includes pre-filtration that processes a small portion of the treatment volume. The filter removes larger solids to minimize maintenance related to solids accumulation in the process piping or vessels. We offer an automatic self-cleaning filter type with permanent media. Periodically these filters “purge” or reverse flow to remove accumulated solids. The action of the filters does not create a disruption in the process flow to the process module.



The NanO2 process utilizes the filtered wastewater to create an oxygen rich “carrier” stream, supersaturated up to 880 mg/l. This elevated levels enables a small portion of the wastewater to carry the elevated oxygen back into the wastewater delivering the necessary dissolved oxygen for effective biological treatment. Nano2’s patented high velocity nozzles are engineered to deliver micro-nanobubbles that offer enhanced properties.

Micro-nanobubbles demonstrate different properties than those associated with fine or coarse bubble types. The size of these bubbles is the key to several of the benefits provided by micro-nanobubbles. The NanO2 process micro-nanobubbles provide more surface area, more consistent DO vertically from bottom to surface, minimized vertical rise or buoyancy, and reduced losses to off gassing at the surface. The benefit of NanO2 aeration is more dissolved oxygen is available for your treatment process per kilowatt.

To provide the oxygen we have included a Vacuum Swing Adsorption generator that removes the nitrogen and several other gases while concentrating the oxygen to the desired purity. The VSA generator configuration offers reduced requirements for ancillary components and has the ability to “track” our oxygen demand for maximum energy efficiency. An oil-free booster compressor enables NanO2 to increase the gas pressure to meet application requirements.

The treatment concept would be to draw from a specified cell and create the carrier. The oxygenated solution would be carried through a pipe header from the process building and split into two pipes, each one dedicated to a lagoon or cell. These dedicated lagoon header would then feed branch that would connect to the nozzle manifolds submerged in the wastewater. Nozzle branch piping would utilize a quick disconnect for ease of access for inspection and maintenance.

The NanO2 aeration process offers superior oxygen transfer reaching 99%; this is several times other aeration processes. This transfer efficiency is combined with out enhanced mechanical process to reduced the overall energy required for aeration by up to 60 % or more over other current aeration technologies. Our processes ability to deliver dissolved oxygen quickly when and where it is needed further compliments the energy savings.

	Daily Flow	BOD/lbs/ Day	TKN/lbs/day 10mg/l	O2 lbs Req/day	NanO2 O2/day	Cost per day *
AVG BOD	244,000	200 lbs	20.43 mg/l	341 lbs	412 lbs	\$ 38.42
ADW	244,000	544 lbs	20.43 mg/l	775 lbs	824 lbs	\$ 69.72
AWW	790,000	544 lbs	20.43 mg/l	980 lbs	1099 lbs	\$ 92.40
MWW	1,440,000	544lbs	20.43 mg/l	1219 lbs	1375 lbs	\$ 107.35

*Cost are complete system, pre-filter module, process module and oxygen module.



The operation of the NanO2 system is managed by an integral PLC utilizing various process inputs in an automatic mode. We are proposing (2) process units to provide for duplication and provide an enhanced operating capability. Each process module would offer 4 potential discharge zones. Tentatively for your application we propose utilizing consistent DO delivery rate in Cell # 1 or receiving cell utilizing (1) of the (4) available discharge zones of the process module. Zone 2 would provide DO to the #2 cell based on demand and set point for sensor input. Zone 3 activated if and when the volume of DO from Zones 1 and 2 is insufficient to meet the loading demand.

Thank you for this opportunity to present West Branch this proposal for your aeration application. Please feel free to contact our office or our representative QCA/Green Start (Len Hoogerwerf) for additional information or assistance.

Sincerely,

Kirk L. Brown
President/CEO



Phase 1

LAY THE GROUNDWORK

DURATION: 2-3 MONTHS

Laying the groundwork is about getting organized to conduct a successful Community Heart & Soul process. This is when you gather partners and a team of volunteers, figure out how they will coordinate with each other, set goals, and decide what will be included in the process. It is also an important time to find out who lives or works in the community and set up a communications strategy to reach them.

Phase 1 includes three steps:

STEP 1 Get Organized

Laying the groundwork is about getting organized to conduct a successful Heart & Soul process. The first task is to determine the demographic makeup of your town, assisted by our Community Network Analysis tool. Then you gather partners and a team of volunteers reflective of your demographic makeup and figure out how they will coordinate with each other, set goals, and establish a timeline for your Heart & Soul process. Keep in mind from this point forward that you will be reaching out to your entire community so use every opportunity to capture details of how that will occur.

STEP 2 Create a Work Plan

A Heart & Soul operations timeline or work plan is essential for good project management, and it also works as a communications tool that helps people understand what will happen and when. The work plan should include specific activities and tasks, milestones, timing, and budget.

STEP 3 Spread the Word

This step is about building public awareness, interest, and good will for Heart & Soul. Community members will want to know about the Heart & Soul Principles and the particular details of the method. Before you start getting the good word out, assemble all the tools, information, and people-power needed to support communications.

Phase 1 CHECKLIST

A well-organized Heart & Soul process will have the following elements in place by the end of Phase 1:

- A Heart & Soul Team of volunteers whose members reflect the demographic makeup of the community and include a coordinator, staff, or contractors ready to perform tasks such as project management and coordination, volunteer management, communications and outreach, event planning, facilitation, website and social media management, and financial oversight
- Clear goals for both the overall Heart & Soul process and for each phase that can be explained and understood by everyone
- A completed Community Network Analysis that captures social networks, to help your team be more effective in communications and outreach (see Task 1.2: Understand community networks), remember to revisit your Community Network Analysis throughout the process
- An engagement strategy that outlines activities and timing (include clear tactics for including youth, marginalized voices, busy people, minorities, and the elderly)
- A communications plan specifying how you'll reach people, who you'll reach, and when you'll do so
- Ready-to-go communications tools such as branding and messaging, and website and social media identities
- A work plan that details overall tasks, schedules, responsibilities, and budget allocations
- One or more preliminary awareness-raising activities to begin to get the word out, such as a round of introductory presentations with local organizations or a booth at an existing local event, followed by a more significant and widely publicized Heart & Soul "kickoff" event
- An awareness that kick-off events and presentations are early opportunities to gather information about what matters most to residents, which is a smart way to build toward Phase 2 Explore Your Community activities—particularly Task 4.2: Organize the data (page 35)
- Short-term actions and the early stages of longer-term actions are underway

STEP 1

Get Organized

This is when you assemble a team, conduct a Community Network Analysis, set up the work plan, and size up your community's strengths and weaknesses for the project. Take this step seriously. Each of its tasks plays an enormous role in the overall success of your Heart & Soul project.

Step 1 includes five tasks:

- 1.1 Form an initial Heart & Soul Team
- 1.2 Understand community networks
- 1.3 Expand the team
- 1.4 Scope out the process
- 1.5 Assess community readiness

TASK 1.1

Form an initial Heart & Soul Team



The Foundation's [FORMING YOUR HEART & SOUL TEAM](#) resource will help your team with this task.

Assemble an initial team of pioneers who are excited about the work and have some capacity to support it. This could be staff from town government or local organizations, an existing committee, or your friends—and strangers, too. The more diverse the backgrounds and perspectives of this initial team's members, the more representative it will be and the better it will be at reaching those people in your community who are often overlooked. This team plays several key roles; it shapes and monitors the process, connects with local leaders, and navigates various roadblocks.

The initial team may include organizational partners that supply or find funds, staff, and other resources. It also includes volunteers who are simply eager to be involved. It is smart to also include people who have established relationships and bring strategic benefits to the project, such as a leader from a local civic organization. Representatives from local businesses, community leaders, municipal staff, and people with relevant community experience add value to the team and help ensure success.

In some towns where we've worked, the local government initiated Heart & Soul; in others, local non-profits did so. In either case, a strong partnership between the Heart & Soul Team and local government proved vital to lasting results. After all, those folks, among others, will be largely responsible for making sure the results of your work endure.

TASK 1.2

Understand community networks

The Foundation's [COMMUNITY NETWORK ANALYSIS TOOL](#) explains how to conduct this vitally important task. Strong network analysis is key to delivering on the promise of Principle 1: Involve Everyone.



Community Network Analysis: Have you ever been in a situation where you had something to say but couldn't find a way to be heard? Most have endured this frustrating situation either at the dinner table or at gatherings and meetings. Now imagine that experience on a community-wide level, with additional obstacles to being heard, such as work schedules, lack of child care to attend meetings, lack of transportation, inability to use digital tools, or even just not feeling like you belong. It's important to remember that no community, no matter how small, forms a uniform entity. It is composed of unique, diverse people, groups,

TIP from the Field

We strongly recommend that the initial Heart & Soul Team **include at least one elected official** (city council or selectboard member) and one high-level city or town staffer. Our experience tells us that early and active involvement of local officials means that they are more likely to understand and embrace what residents say matters most to them about their town.

This, then, helps local officials see how to guide their decisions based on what matters most. Such support and participation also increase the likelihood that those Heart & Soul attributes will be integrated into policy documents, like town master plans, land-use regulations, economic and community development plans, and the budgets that support them. These are key aspects of fulfilling Principle 3: Play the Long Game.

Using what you learn about your community's networks will allow you to develop engagement and communications plans that connect you to many more community members. Throughout the Heart & Soul process you will need to evaluate your team's depth of reach into the community and whether it's been as inclusive and diverse as identified within your Community Network Analysts.

TASK 1.3

Expand the team



The Foundation's [SELECTING A HEART & SOUL COORDINATOR](#) resource will help your team with this task.

Heart & Soul requires a broad base of committed volunteers and advisors, more than the original team provides. Be inclusive and strategic when expanding this team by including people who will be representative of and can connect with the identified community networks and groups (in Task 1.2: Understand community networks), have the skills the team needs, and have the right personalities to balance or energize the group. Individuals or organizations with skills in project management, budgeting, event planning, communications, facilitation, and local politics are critical. Take a look at adding community leaders and key staff from local non-profit organizations, local civic groups, and/or local churches to help with engagement as well as with the leadership buy-in needed to act on Principle 3: Play the Long Game.

Make sure that everyone involved knows what he or she is signing up for. A great way to do this is to write up formal descriptions of everyone's roles and responsibilities, sign contracts—especially if there is money involved—and include some procedural agreements such as how decisions will be made and how transitions will be handled. Finally, find an organization that can offer staff or contractors office space and help manage finances. The sooner you recruit such an organization, the better.

Project Coordinator. A qualified, paid project coordinator is essential to the success of Community Heart & Soul, so take your time filling this key position. Coordinators manage volunteers, handle administrative tasks and finances, and keep everything on track. A coordinator needs experience with project management, coordinating volunteers, facilitating meetings and discussions, community organizing, firefighting, and juggling. A coordinator ought to be at once forceful and patient—and have a sense of humor.

To fulfill all these duties and expectations, we strongly recommend that project coordinators be hired full time for the duration of the process; half time has proved unrealistic. Before undertaking this task, read the Foundation's [Selecting a Heart & Soul Coordinator](#) resource, which describes specific skills and qualifications required.

A coordinator with leadership ability is essential to ensure that your Heart & Soul initiative gets off the ground, carries out its strategy, and successfully achieves its desired results. This person needs to fit the culture of the community and complement the skills of team members. Selecting the right person is a responsibility best left to a small committee rather than an individual. Yet there are no guarantees; in one of our towns, an initial hire proved unequal to the task and had to be replaced. Finding the right fit will significantly increase the success of Community Heart & Soul in your town.

The expanded Heart & Soul Team typically includes:

- **Partners.** Partners usually commit staff, funds, or other resources to the project. They include town or city government (included on your initial team), local or regional non-profit and for-profit organizations, service agencies, and youth-focused organizations. Define clear roles and responsibilities for each partner and formalize them in a partnership agreement.
- **Community volunteers and advisors.** Members of this representative group include advisors and active volunteers. They are the eyes and ears of the effort; acting as ambassadors to the broader community and

to specific groups and networks. They contribute their perspectives, local experience, and special skills to point the project in the right direction. Individuals in this group attend community gatherings and help facilitate discussions.

- **Task forces.** These are smaller groups of volunteers that take on special assignments. Task forces meet frequently to coordinate and follow through on specific tasks, such as youth outreach, policy or plan development, and fundraising. Task forces typically disband when a task is completed.

TASK 1.4

Scope out the process



The Foundation's [CREATING A HEART & SOUL PROJECT WORK PLAN](#) resource will help your team with this task.

Describe the need and the specific projects that your Heart & Soul process is addressing, as well as its goals and desired results. Be as clear as possible in writing up the need, projects, goals, and desired results. This is the first Heart & Soul communications piece.

Your expanded team of volunteers is more likely to care about and commit to the effort if they have a chance to shape the project and make it their own, so review the project scope and goals with the full team and make sure these are on target. It may be necessary to tweak the goals and results to help organizational partners align their own mission or programs to the Heart & Soul process.

Fundraising and gaining approvals are common startup tasks. While you are developing the scope of the process—everything that your project will include—you can also be preparing a proposal for grant applications or other "sales pitches" that may be required by city council or a local non-profit board, for example.

Have the team develop or review the proposal. A simple way to do this is to ask the team to consider the following questions and have them keep in mind what they learned from Task 1.5: Assess community readiness.

Biddeford, Maine



ON THE GROUND

LOCAL SKILL BUILDING

Train local volunteers to help facilitate meetings.

In Biddeford, Maine, the Heart & Soul Team partnered with Everyday Democracy to offer a facilitator workshop to build volunteers' skills. The workshop trained more than 35 residents as facilitators, including high school and University of New England students.

These volunteer facilitators supported 16 neighborhood meetings across the city. They can continue to volunteer their newfound skills at any future gatherings where key community decisions are discussed.



ON THE GROUND

GOING THE EXTRA MILE

Involving everyone reaps big rewards.

In Cortez, Colorado, the Ute Mountain Ute, a nearby Native American tribe, were typically underrepresented at public meetings. Determined to hear from everyone in the community, the Cortez Heart & Soul Team met with tribal members and learned that going door-to-door, sending letters of invitation, and using the tribe's radio station were the best ways to reach people.

After overcoming fears and assumptions about their neighbors, and learning the best ways to seek participation, Heart & Soul volunteers hosted meetings with tribal members, strengthening relationships and beginning to build trust. When it came time for a downtown Cortez beautification project, the trust building paid off; Ute Mountain Ute members gave direct input on the plans and partnered with the city to incorporate aspects of tribal culture and history into the project.

Learn strategies for reaching all groups in your community by listening to a CommunityMatters conference call on Engaging Diversity with Mónica Palmquist Velázquez of Cortez.

allenges or opportunities that the project will address?

- **What are our goals or expectations for success?** What will be accomplished through this process? Are there specific deliverables? What will be the short-term and long-term results?
- **What is the scope?** Is there a geographic area of focus or a topic of focus? Is there a clear timeline? Are there issues that are "off the table"?
- **Why Heart & Soul?** How will this process differ from previous community projects?

In establishing goals, avoid proposing specific solutions or taking positions, such as saying "no" to a pig farm or "yes" to repairing the potholes on Main Street. Heart & Soul is about building a sense of shared purpose and organizing a response to it, which could reveal unanticipated solutions. Heart & Soul is all about finding and working toward common goals rather than taking sides or reinforcing a position.

For detailed guidance on how to establish goals and develop your project plan, see our [Creating a Heart & Soul Project Work Plan](#) resource.

TASK 1.5

Assess community readiness

Take some time with your team to understand how ready your community is to conduct Heart & Soul. Some communities can dive right into the work of Phase 2 to explore their communities, but others will need to focus more heavily on building leadership, trust, relationships, and skills before they can enter the next phase of the process.

Readiness involves a combination of community interest and capacity. Community interest relates to how much anyone cares about what you are trying to do. Is there an acute need or a big decision that needs to be tackled? Is there a desire for collaborative action that Community Heart & Soul will tap into?

Community capacity relates to the social and civic factors—trust and skills—that can slow down or speed up the process. These factors include:

- 1. Leadership.** A community with strong leadership embraces formal and informal leaders, including youth. Leaders are trusted, responsive, and accessible. They encourage community participation, and they are able to build relationships and enable action. To support leadership, focus on equipping existing leaders with opportunities to connect with residents.
- 2. Relationships and community building.** A community with strong relationships between individuals and organizations has experience with collaboration and is well equipped for Heart & Soul. To strengthen collaboration, focus on bringing different types of groups together, coordinating among organizations, and giving everyone an opportunity to connect by sharing experiences of living in the community.
- 3. Civic participation.** A community with an ethic of civic participation and the skills to include people from diverse cultural, economic, and political perspectives provides many opportunities for people to participate in making meaningful decisions. Where it is weak, demonstrate the benefits of civic participation throughout the process by bringing local staff and leaders to events, giving them ongoing updates and participant feedback that will make them more confident in making decisions.

Heart & Soul fortifies each of these factors, so this task is simply about understanding where to begin and what to focus on. In other words, you will consider your community's strengths and weaknesses in each area and then design a process that addresses the gaps. If your town is typically unable to do more than respond to crises and fill short-term needs, for example, then you might begin with a focus on relationship building and small, tangible successes. On the other hand, if your town has a solid record of working together toward long-term results, then you might be able to dive more quickly into strategic planning.



ON THE GROUND KIDS BRIDGE DIVIDES

Colorado's North Fork Valley Heart & Soul Team partnered with local radio station KVNF to create Pass the Mic, a youth-led story-sharing project to collect and share stories about local people from each of the town's sometimes hostile economic sectors.

Over the course of two years, 14 reporters (ages 10-12) were assigned to a local beat in one of North Fork Valley's five major economic sectors. The youth reporters learned skills for creating multimedia stories and conducting interviews. Even more important, Pass the Mic helped the whole community start conversations about important issues like taxes, coal mine expansion, supporting local agriculture, and having people get along.