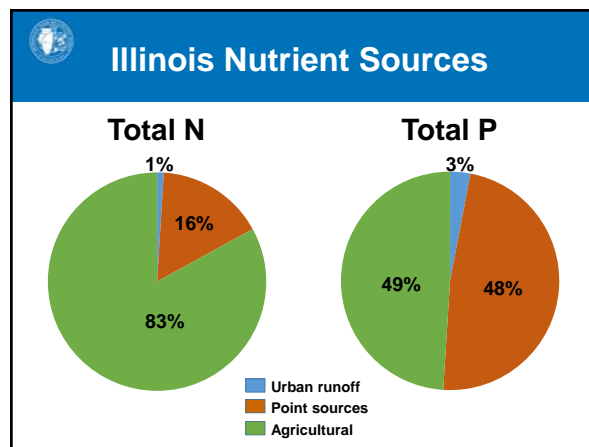




## Nutrient Loss Reduction Strategy

**Strategy goals and milestones:**

- 45% reduction in N and P from all sources; i.e. Point, Non-Point (agriculture) & Urban Runoff sources
- Interim milestones (2025)
  - 25% reduction in P
  - 15% reduction in N



## IL Nutrient Loss Reduction Strategy

- Nutrients are the #1 focus of USEPA
- Dead Zone in Gulf, Lake Erie Algal Blooms
- P-Freshwater, N-Salt Water
- Statewide Nutrient Loss Reduction Strategy (Strategy) released in 2015
- Strategy Objectives
  1. Address Gulf Hypoxia by reducing nutrient loss to IL waters and Gulf of Mexico by 45%
  2. Improve local water quality

## Nutrient Water Quality Criteria

**Nutrient Science Advisory Council (NSAC)**

- Selected by the Strategy Policy Working Group
- Evaluate all IL data and develop N and P criteria based on cause and effect relationships
- Recommendation to IEPA – end of 2017
- To IPCB – end of 2018
- Possible Outcomes
  - USEPA Ecoregion Criteria – 0.072
  - Wisconsin – 0.075 (Adaptive management option)



## District Nutrient Loads 2016

	Influent lb/d	Effluent lb/d	% Removal
Stickney	53,822	3,430	96%
Calumet	12,500	4,400	64.8%
O'Brien	6,593	2,606	60.5%
Kirie	985	134	86.4%
Egan	1,186	582	59.9%
Hanover Park	339	190	43.9%
Lemont	83	49	40.2%
<b>Total</b>	<b>75,507</b>	<b>11,392</b>	<b>84.9%</b>

Influent Annual Load: 27,560,055 pounds  
Effluent Annual Load: 4,158,080 pounds



## Legislative Agenda - Language

70 ILCS 2605/

(a) In the event that nutrient trading to meet water quality standards is available in Illinois, the sanitary district shall have the authority to participate in the program throughout the State.

(b) The authorizations granted to the sanitary district under this Section shall not be construed as modifying or limiting any other law or regulation. Any actions taken pursuant to the authorities granted in this Section must be in compliance with all applicable laws and regulations, including, but not limited to, the Environmental Protection Act, and rules adopted under that Act.



## District Nutrient Estimated Cost 0.1 mg/l

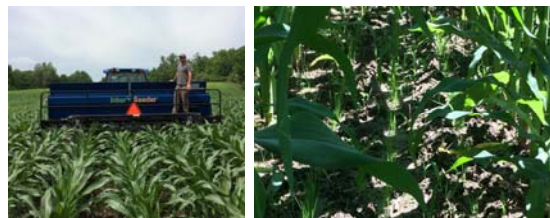
	Capital Cost (1000 \$)	Annual O&M (1000 \$)	Annualized (1000 \$)
Stickney	435,212	36,404	79,925
Calumet	159,654	13,354	29,320
O'Brien	477,677	42,498	90,266
Kirie	21,653	1,811	3,977
Egan	15,277	1,278	2,806
Hanover Park	20,201	1,797	3,817
Lemont	5,682	505	1,074
<b>Total</b>	<b>1,135,356</b>	<b>97,647</b>	<b>211,185</b>

\*\*Credit Costs on Agricultural Land: 2,000,000 pounds at \$10/lb



## Point/Non-Point Opportunities

**Cover Crop – Early season interseeding to increase effectiveness (research at Fulton Co.)**



## Legislative Agenda - Issues


- Annual Geometric Mean Limit
- Ability to Trade in Downstream Program
- Water quality trading market is key element in the discussion on how to achieve 45% reduction goals
- Advocates – IEPA, IPCB, listed as action in Strategy
- Gerald Keenan of IPCB comments on trading:
  - Focus on solving the bigger systemic problems instead of only local problems
  - Think on bigger scale in terms of the broader market
  - Bigger markets provides more opportunities for trades and overall savings



## Point/Non-Point Opportunities

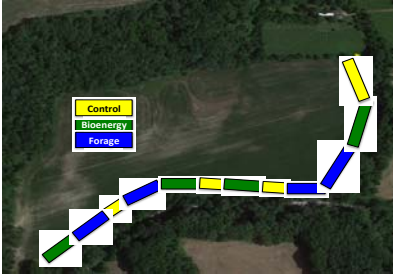
### Constructed Wetlands






## Point/Non-Point Opportunities

### Multifunctional Perennial Buffer Crops







## Survivor Pension Benefit

### Background


- June 1, 2014 - the Illinois Religious Freedom and Marriage Fairness Act went into effect, legalizing same-sex marriage, leaving in place the Civil Union Act, and providing for voluntary conversion of civil unions into marriages.



## Metropolitan Water Reclamation District of Greater Chicago




# Survivor Pension Benefit



## Survivor Pension Benefit

### Background


- July 29, 2016 - Public Act 99-0682 went into effect, amending 3 State of Illinois retirement systems to provide for extension of survivor pension benefits to certain partners. The 3 State systems are:
  - Illinois Teachers Retirement System (ITRS)
  - State Universities Retirement System (SURS)
  - Illinois Municipal Retirement Fund (IMRF)
- Each retirement system changed its eligibility for survivor pension benefits in different ways, and two of these – SURS and IMRF were changed similar to the board requested information.



## Survivor Pension Benefit

### Background

- June 1, 2011 - Illinois Religious Freedom Protection and Civil Union Act (“Civil Union Act”) went into effect; allows two persons of the same or opposite gender to enter into a legal relationship referred to as a civil union.
- Parties to the civil union have the same obligations, responsibilities, protections and benefits afforded by Illinois law to a married couple.
- As a result of the Civil Union Act, all pension benefits previously made available by the District’s Retirement Fund to a married retiree and his or her spouse, are now benefits that are available to parties of a civil union.



## Survivor Pension Benefit

System	Terms of Eligibility <sup>1</sup>	Terms of Election	Terms of Repayment
IMRF	* Retired before 6/1/2011; * Party to a civil union after 6/1/2011 or a marriage after 2/26/2014 or party to other legal relationship that was not recognized by IL until 2/26/14.	Elect to establish surviving spouse annuity eligibility for an eligible spouse within a 12-month period which began 5 months after the bill's passage.	Allowed a period of ≤ 24 months to make payments. Interest is charged at the actuarially assumed rate of return. Interest is charged from the date of the refund to the date of the election.
SURS	* Retired before 6/1/2011; * Party to a civil union after 6/1/2011 or a marriage after 2/26/2014 or party to other legal relationship that was not recognized by IL until 2/26/14.	Elect to establish surviving spouse annuity eligibility for an eligible spouse within a 12-month period which began 5 months after the bill's passage.	Allowed a period of ≤ 24 months to make payments. Interest is charged at the actuarially assumed rate of return. Interest is charged from the date of the refund to the date of the election.

Presumes employee received a refund of spouse or survivor contributions.



## Survivor Pension Benefit

### Eligibility and Cost Considerations

- Only available to annuitants who retired prior to June 1, 2011 and received a spousal refund at the time of their separation from service
- Election Period to establish survivor benefit (1 year)
- Re-payment period of spousal refund + actuarial rate of return (7.5%) (24 months)



## Metropolitan Water Reclamation District of Greater Chicago

# OPEB (Status Update)



## Survivor Pension Benefit

### Eligibility and Cost Considerations

#### Hypothetical Retiree

- Annuity effective September 2009
- Age 56, 30 years of service
- Original monthly annuity \$7,800
- No spouse refund \$30,000
- Current Monthly Annuity \$9,500
- Cost to repay as of 3/1/2017 = \$52,000
- Provides a surviving spouse annuity of 85%<sup>1</sup> of the member's annuity at death, currently \$8,075 (\$9,500 x 0.85)

<sup>1</sup> Surviving spouse annuity is calculated as 60% plus 1% per year of service to a maximum of 85% of the member's annuity at death



## Other Post-Employment Benefits (OPEB)

- Realize value from District-owned real estate that is currently under lease in order to receive immediate benefits from the District's Other Post-Employment Benefit Trust (OPEB).
- Katten Muchin – Bond counsel looking into appropriate investment vehicle
- KPMG – Exploring accounting path forward
- Next – see if both worlds can intersect
- Worth pursuing - \$100,000,000 value over 10 years
- If confirmed, present to the board at a future date...



## Survivor Pension Benefit

### Eligibility and Cost Considerations

#### Actuarial cost impact to the Fund

- The member's plan liability is approximately \$1.6 million (assuming no surviving spouse annuity liability)
- Liability increases to around \$1.78 million if there is a surviving spouse benefit, or an increase of \$180,000.
- Assuming repayment of the refund, the net increase in the liability is \$128,000 (\$180,000 - \$52,000 repayment).
- This calculation reflects an 85% continuation percentage. If a member is eligible for a smaller percentage, the increase in liability would be smaller. Additionally, this reflects a female member with a female spouse that is three years older than the member.



## Metropolitan Water Reclamation District of Greater Chicago

# Questions?